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DEPARTMENT OF
WATER RESOURCES

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Pioneer Irrigation District

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IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT

OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA

Case No. 39576

Subcase Nos. 63-00166A 63-00166B
63-00167A 63-00167B
63-00179A 63-00179C
63-32580

PIONEER IRRIGATION DISTRICT'S SECOND SUPPLEMENTAL RESPONSES TO MASON CREEK DITCH COMPANY'S FIRST SET OF DISCOVERY REQUESTS AND SECOND SUPPLEMENTAL RESPONSES TO MASON CREEK DITCH COMPANY'S SECOND SET OF DISCOVERY REQUESTS

COMES NOW Pioneer Irrigation District, by and through undersigned counsel, and hereby provides its supplemental answers and responds to Mason Creek Ditch Company's First Set of Interrogatories, Requests for Admission and Requests for Production, as follows:

I.
GENERAL OBJECTIONS

Pioneer has not completed its own investigations and/or discovery. Accordingly, the responses that follow are based upon the best knowledge, information, and belief of Pioneer at this time. Pioneer reserves the right to make any further responses if it appears that any omission or error has been made in connection with these responses or that more accurate information is or has become available. These responses are made without prejudice to Pioneer's rights to use in later discovery or to present at trial, such evidence as may later be discovered or evaluated.

Pioneer objects to the definitions and instructions to the extent they purport to require discovery requests beyond that required under the Idaho Rules of Civil Procedure. These responses are provided in accordance with the Idaho Rules of Civil Procedure irrespective of any definitions and instructions that may accompany these discovery requests.

These responses are made subject to all objections as to competence, relevance, materiality, and admissibility. These responses are subject to all objections that would require the exclusion of any statement, material, or information herein provided if such interrogatory were asked of or any statement, material, or information provided were made by witnesses present and testifying in court. All such objections are reserved and may be interposed at the time of trial.

Pioneer specifically objects to these discovery requests to the extent they seek information protected by the attorney-client privilege, the attorney work product doctrine, and the rules governing the discovery of facts of experts as set forth in Rule 26(b)(4), Idaho Rule of Civil Procedure. This objection is intended to apply to all of the discovery requests that seek such information and will not necessarily be repeated for each request to which it applies. Pioneer has, to the extent possible, construed each request as requesting only information and/or documents not subject to any applicable protection.

No incidental or implied admissions are intended. The fact that Pioneer has responded to any discovery request, or part thereof, should not be taken as an admission that Pioneer accepts that the discovery request or the response or objection thereto constitutes admissible evidence. Pioneer's answers to any discovery requests herein do not constitute a waiver of their rights to object to any future, additional, or supplemental discovery requests regarding the same or similar matter.

II.
ANSWERS TO INTERROGATORIES

INTERROGATORY NO. 2: Please describe, with specificity, each factual and legal basis for the Objection filed by Pioneer Irrigation district to the Director's recommendation for water right no. 63-179C.

INITIAL ANSWER TO INTERROGATORY NO. 2: Pioneer's investigations into the factual and legal issues relevant to the recommendation of water right 63-179C are ongoing, and Pioneer therefore reserves the right to supplement its response in accordance with Idaho Rule of Civil Procedure 26(e) and the Trial Scheduling Order. At this time, Pioneer responds as follows.

The water right is diverted, conveyed, and delivered to the water users comprising the Mason Creek Ditch Co. through Pioneer's Highline Canal. Pioneer has historically performed all of the operation, maintenance, and repair of the Highline Canal. Mason Creek Ditch Co. has historically not contributed to the payment of expenses associated with such efforts and lacks any specific authorization from Pioneer to convey the water right through Pioneer's system. Pioneer suspects that some of the water diverted under this right has historically been used on Pioneer lands. Pioneer's Highline Canal does not have sufficient operational capacity to convey all of the water rights which have been recommended with the Highline Canal as the point of diversion. Therefore, Pioneer believes all or a portion of this water right has been forfeited. The diversion rate exceeds a reasonable duty of water when combined with the recommendation for 63-32580 and Mason's potential claim to 63-33392.

SUPPLEMENTAL ANSWER TO INTERROGATORY NO. 2: Pioneer's investigations into the factual and legal issues relevant to the recommendation of water right 63-179C are ongoing, and Pioneer therefore reserves the right to supplement its response in accordance with Idaho Rule of Civil Procedure 26(e) and the Trial Scheduling Order. At this time, Pioneer responds as follows.

The recommendation for water right 63-179C recommends a point of diversion which would require water to be diverted, conveyed, and delivered to the water users comprising the Mason Creek Ditch Co. through Pioneer's Caldwell Highline Canal. Pioneer has historically performed all of the operation, maintenance, and repair of the Caldwell Highline Canal. Mason Creek Ditch Co. has historically not contributed to the payment of expenses associated with such efforts and lacks any specific authorization from Pioneer to convey the water right through

Pioneer's system. Pioneer's Caldwell Highline Canal does not have sufficient operational capacity to convey all of the water rights which have been recommended with the Caldwell Highline Canal as the point of diversion. Therefore, Pioneer believes all or a portion of this water right has been forfeited. To the extent that diversions of Boise River water pursuant to water right 63-179 have occurred, Pioneer suspects that some of that water has historically been used on Pioneer lands. Pioneer also believes that the majority of any water diverted by Mason Creek Ditch Co. water users from the Caldwell Highline Canal (if any) consists of wastewater rather than Boise River water. The diversion rate exceeds a reasonable duty of water when combined with the recommendation for 63-32580 and Mason's potential claim to 63-33392.

SECOND SUPPLEMENTAL ANSWER TO INTERROGATORY NO. 2:

Pioneer's investigations into the factual and legal issues relevant to the recommendation of water right 63-179C are ongoing, and Pioneer therefore reserves the right to supplement its response in accordance with Idaho Rule of Civil Procedure 26(e). At this time, Pioneer responds as follows.

The recommendation for water right 63-179C recommends a point of diversion which would require water to be diverted, conveyed, and delivered to the water users comprising the Mason Creek Ditch Co. through Pioneer's Caldwell Highline Canal. However, Mason Creek Ditch Co. has not obtained or produced a written agreement from Pioneer which authorizes use of the canal. Pioneer has historically performed all of the operation, maintenance, and repair of the Caldwell Highline Canal. Mason Creek Ditch Co. has historically not contributed to the payment of expenses associated with such efforts and lacks any specific authorization from Pioneer to convey the water right through Pioneer's system.

Pioneer's Caldwell Highline Canal does not have sufficient operational capacity to convey all of the water rights which have been recommended with the Caldwell Highline Canal as the point of diversion, due primarily to a bridge and culvert constructed within the canal not far from its heading on the Boise River. Documentation reflects that this bridge was constructed more than five years prior to the filing of Mason Creek Ditch Co.'s claim to this water right. Therefore, Pioneer believes all or a portion of this water right has been forfeited.

To the extent that diversions of Boise River water pursuant to water right 63-179 have occurred, historical records confirm that such water has historically been used on Pioneer lands.

Analysis of the hydrology of the Caldwell Highline Canal system and of Pioneer water delivery records confirms that Mason Creek Ditch Co. water users divert very little water from the Caldwell Highline Canal. And, any such water diverted by Mason Creek Ditch Co. from the Caldwell Highline Canal consists nearly exclusively of wastewater developed by feeder canals from Fivemile Drain and Mason Creek Drain and by wastewater ditches which empty into the canal.

The diversion rate exceeds a reasonable duty of water when combined with the recommendation for 63-32580 and Mason's potential claim to 63-33392.

The recommended point of diversion involves an accomplished transfer of the point of diversion specified in the Stewart Decree. Diversion of this water right through the Caldwell Highline Canal necessarily resulted in an enlargement of that water right and injury to other rights through, among other things, increased availability of water, expansion of irrigable acres, reduction in conveyance losses, and displacement of other water rights within the canal.

The recommended place of use reflects an expansion of acres over and above the place of use specified in the Stewart Decree, as confirmed in the historical record relating to the delivery of this water right through the Caldwell Highline Canal.

INTERROGATORY NO. 4: Please describe, with specificity, each factual and legal basis for Pioneer Irrigation District's objection to water right no. 63-32580 claimed by Mason Creek Ditch Company from Mason Creek.

INITIAL ANSWER TO INTERROGATORY NO. 4: Pioneer's investigations into the factual and legal issues relevant to the recommendation of water right 63-32580 are ongoing, and Pioneer therefore reserves the right to supplement its response in accordance with Idaho Rule of Civil Procedure 26(e) and the Trial Scheduling Order. At this time, Pioneer responds as follows.

Under Idaho law, waste water may be recaptured by the original appropriator, even if doing so injures water users who have perfected water rights in such waste water. Virtually all of the water in Mason Creek consists of return flow from irrigation occurring within Pioneer. Therefore, to more accurately capture Idaho law, the remark in the recommendation should be revised to include these clarifications. In addition, the recommended quantity exceeds the reasonable duty of water when combined with the recommendation for 63-179C and Mason's potential claim to 63-33392.

SUPPLEMENTAL ANSWER TO INTERROGATORY NO. 4: Pioneer's investigations into the factual and legal issues relevant to the recommendation of water right 63-32580 are ongoing, and Pioneer therefore reserves the right to supplement its response in

accordance with Idaho Rule of Civil Procedure 26(e) and the Trial Scheduling Order. At this time, Pioneer responds as follows.

Under Idaho law, waste water may be recaptured by the original appropriator, even if doing so injures water users who have perfected water rights in such waste water. Virtually all of the water in Mason Creek consists of return flow from irrigation occurring within Pioneer. Therefore, to more accurately capture Idaho law, the remark in the recommendation should be revised to include these clarifications. In addition, the recommended quantity exceeds the reasonable duty of water when combined with the recommendation for 63-179C and Mason's claim to 63-33392. Moreover, the available evidence does not reasonably support the recommended priority date, or the assignment of that priority date to the entire recommended quantity.

SECOND SUPPLEMENTAL ANSWER TO INTERROGATORY NO. 4:

Pioneer's investigations into the factual and legal issues relevant to the recommendation of water right 63-32580 are ongoing, and Pioneer therefore reserves the right to supplement its response in accordance with Idaho Rule of Civil Procedure 26(e). In addition, Pioneer objects to the extent this request seeks information protected by either the attorney-client privilege or the work product doctrine At this time, and without waiving such objections, Pioneer responds as follows.

Under Idaho law, waste water may be recaptured by the original appropriator, even if doing so injures water users who have perfected water rights in such waste water. Virtually all of the water in Mason Creek consists of return flow from irrigation occurring within Pioneer. Therefore, to more accurately capture Idaho law, the remark in the recommendation should be revised to include these clarifications.

The recommended quantity exceeds the reasonable duty of water when combined with the recommendation for 63-179C and Mason's claim to 63-33392.

The available evidence does not reasonably support the recommended priority date, or the assignment of that priority date to the entire recommended quantity. More specifically, it appears that Mason Creek Ditch Company supported its claimed 1869 priority date solely with the notarized letter of Charles Paynter, Jr., dated November 26, 2006. Though the Idaho Department of Water Resources ultimately recommended a priority date of 1922, it relied upon the above-referenced Paynter letter in doing so. Consequently, the sole piece of "evidence" establishing the recommended 1922 priority date is the recollection of a then 90-year old individual who was six years old in 1922.

At present, Pioneer disagrees that the Paynter letter alone serves as sufficient evidence of the recommended priority date. Mr. Paynter's letter states that the Company has diverted water from Mason Creek at the specified location "for as long as I can remember." However, Mr. Paynter does not state any specific time frame for his recollection. Moreover, the reliability of the observations of a six (6) year is questionable, let alone observations allegedly made at six (6) years old later recounted at age ninety (90).

In addition to the Paynter letter, the Company also submitted a notarized letter of Edwin June Vassar in support of its historic diversions of water from Mason Creek. Mr. Vassar states that he can personally recall such diversions occurring since "1931 to present," as opposed to either 1869 or 1922. Mr. Vassar's recollection calls into question that of Mr. Paynter regarding Company diversions from Mason Creek as early as 1922. Assuming for the moment that the observations of a six (6) year old are sufficiently reliable (as is allegedly the case with

respect to Mr. Paynter), Mr. Vassar was six (6) years old in 1926, yet he does not recall Company diversion of water from Mason Creek at the identified diversion points any earlier than 1931.

INTERROGATORY NO. 6: Please identify all persons with knowledge regarding Pioneer Irrigation District's objection to the water right decreed to Mason Creek Irrigation District identified by water right no. 63-179C or to Pioneer Irrigation District's claim to water right no. 63-179A. Please include addresses and telephone numbers for all persons identified in response to this interrogatory.

INITIAL ANSWER TO INTERROGATORY NO. 6: Pioneer objects to this interrogatory because the phrase "all persons with knowledge regarding" Pioneer's objection and claim is ambiguous and overbroad. Without waiving such objection, Pioneer responds that the decision to file the objection to 63-179C was made by Pioneer's current board of directors, which consists of Alan Newbill, Leland Earnest, and Rob Greenfield. Pioneer Superintendent Mark Zirschky and Pioneer Secretary/Treasurer Dawn Fowler also have knowledge regarding Pioneer's objection and claim. The business address and phone number for all of these individuals is P.O. Box 426, Caldwell, Idaho 83606, (208) 459-3617. Former Pioneer board presidents Kenneth Brush and Donald Sayre and former Pioneer Superintendents Lonnie Freeman and Jeff Scott may also have knowledge regarding these matters. Mr. Brush's home address and phone number are 19724 Dixie River Rd., Caldwell, Idaho 83607, (208) 454-1559, Mr. Sayre's home address and phone number are 17243 Upper Pleasant Ridge Road, Caldwell, Idaho 83607, (208) 459-7917, Mr. Freeman's home address and phone number are P.O. Box 4053, Brookings, Oregon 97415, (541) 469-7572, and Mr. Scott's home address and phone

number are 1123 Talon Ct., Caldwell, Idaho 83607, (208) 459-7542. Pioneer's attorneys Scott Campbell, Andrew Waldera, and Dylan Lawrence, and paralegal Tiffiny Hudak, also have knowledge regarding the claims and objections. Their business address and phone number are P.O. Box 829, Boise, Idaho 83701-0829, (208) 345-2000.

SUPPLEMENTAL ANSWER TO INTERROGATORY NO. 6: In addition to the individuals already identified in Pioneer's previous response to this request, please also see Pioneer's response to Interrogatory No. 7 below.

INTERROGATORY NO. 7: Please identify all persons whom you expect to call as witnesses and expert witnesses at the trial of SRBA sub-case nos. 63-179C or 63-179A and any of these consolidated subcases.

INITIAL ANSWER TO INTERROGATORY NO. 7: Pioneer has not yet definitively determined who will testify as fact witnesses and expert witnesses at trial, and Pioneer therefore reserves the right to supplement this response once those final decisions have been made in accordance with Idaho Rule of Civil Procedure 26(e) and the Trial Scheduling Order. At this time, Pioneer responds that Pioneer board members Alan Newbill, Leland Earnest and Rob Greenfield; Pioneer Superintendent Mark Zirschky; and Pioneer Secretary/Treasurer Dawn Fowler may testify at trial as fact witnesses. Their business address and phone number are P.O. Box 426, Caldwell, Idaho 83606, (208) 459-3617. Scott King, P.E., of SPF Water Engineering, LLC, may also testify at trial as an expert witness. His business address and telephone number are 300 E. Mallard Dr. Suite 350, Boise, ID, 83706, (208) 383-4140.

SUPPLEMENTAL ANSWER TO INTERROGATORY NO. 7: Pioneer has not yet definitively determined who will testify as fact witnesses and expert witnesses at trial, and

Pioneer therefore reserves the right to supplement this response once those final decisions have been made in accordance with Idaho Rule of Civil Procedure 26(e) and the Trial Scheduling Order. At this time, Pioneer responds that Pioneer board members Alan Newbill, Leland Earnest and Rob Greenfield; Pioneer Superintendent Mark Zirschky; and Pioneer Secretary/Treasurer Dawn Fowler may testify at trial as fact witnesses. Their business address and phone number are P.O. Box 426, Caldwell, Idaho 83606, (208) 459-3617. Scott King, P.E., of SPF Water Engineering, LLC, may also testify at trial as an expert witness. His business address and telephone number are 300 E. Mallard Dr. Suite 350, Boise, ID, 83706, (208) 383-4140. Jennifer Stevens, Ph.D of SHRA StevensHistoricalResearchAssociates may also testify at trial as a fact and/or expert witness. Her business address and telephone number are 500 W. Idaho St., Boise, Idaho 83702, (208) 850-1553.

SECOND SUPPLEMENTAL ANSWER TO INTERROGATORY NO. 7:

Pioneer expects to call the following individuals as fact witnesses and expert witnesses in the trial of these subcases:

- William Clayton
  Member, Franklin Ditch Co.
  6820 Joplin Road
  Meridian, Idaho 83642
  (208) 442-7100

- Wayne Dodge
  Former Foreman, Pioneer Irrigation Dist.
  Pioneer is still obtaining his contact information and will supplement this response when such information is obtained.

- Dawn Fowler
  Secretary/Treasurer, Pioneer Irrigation District
  3804 South Lake Avenue
  Caldwell, Idaho 83605
  (208) 459-3617

- Lonnie Freeman
  Former Superintendent, Pioneer Irrigation Dist.
  P.O. Box 4053
  Brookings, Oregon 97415
  (541) 469-7572

- Scott King, P.E.
  SPF Water Engineering, LLC
  300 E. Mallard Dr., Ste. 350
  Boise, Idaho 83706
  (208) 383-4140

- Alan Newbill
  President, Pioneer Irrigation Dist.
  3804 South Lake Avenue
  Caldwell, Idaho 83605
  (208) 459-3617

- Charles Paynter, Jr.
  2911 Lincoln Street
  Caldwell, Idaho 83605

- Jan Shurte
  Idaho Dept. of Water Resources
  2735 Airport Way
  Boise, Idaho 83705-5082
  (208) 334-2190

- Dr. Jennifer Stevens, Ph.D.
  StevensHistoricalResearchAssociates
  500 W. Idaho St.
  Boise, Idaho 83702
  (208) 850-1553

- Dr. David R. Tuthill, Jr.
  Idaho Water Engineering
  2918 N. El Rancho Place
  Boise, Idaho 83704
  (208) 378-1513

- Edwin June Vassar
  4814 Marble Front Road
  Caldwell, Idaho 83605

- Mark Zirschky
  Superintendent, Pioneer Irrigation Dist.
  3804 South Lake Avenue
  Caldwell, Idaho 83605
  (208) 459-3617

In addition, Pioneer reserves the right to call any rebuttal witnesses necessary to rebut the testimony of witness called by Franklin Ditch Co. or Mason Creek Ditch Co.

III.
RESPONSES TO REQUESTS FOR PRODUCTION OF DOCUMENTS

REQUEST FOR PRODUCTION NO. 2: Please produce all contracts, agreements, and any documentation or record of any contracts or agreements between Mason Creek Ditch Company and Pioneer Irrigation District concerning delivery of water to Mason Creek Ditch Company by or through Mason Creek, Five Mile, Ten Mile or Fifteen Mile Drains.

SECOND SUPPLEMENTAL RESPONSE TO REQUEST NO. 2: Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without waiving said objections, additional documents responsive to this request are attached hereto and marked as Bates Numbers PID001002 – PID001031 and PID001081.

REQUEST FOR PRODUCTION NO. 4: Please produce the minutes of all meetings of the Board of Directors of Pioneer Irrigation District which refer to or relate to the negotiations for any agreements, any agreements themselves or the implementation of any agreements between Pioneer Irrigation District and either Franklin Ditch Company or Mason Creek Ditch Company concerning water rights, the Caldwell Highline Canal or use of any water delivered through the Caldwell Highline Canal.

SECOND SUPPLEMENTAL RESPONSE TO REQUEST NO. 4: Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without

waiving said objections, additional documents responsive to this request are attached hereto and marked as Bates Numbers PID001070 – PID001080.

REQUEST FOR PRODUCTION NO. 7: Please produce all records, logs, diaries, reports, minutes, and documents of any kind that demonstrate Pioneer Irrigation District's historical use, delivery, or application of the water to beneficial use represented by water right no. 63-179C decreed to Mason Creek Ditch Company or by water right no. 63-179A claimed by Pioneer Irrigation District.

SECOND SUPPLEMENTAL RESPONSE TO REQUEST NO. 7: Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without waiving said objections, additional documents responsive to this request are attached hereto and marked as Bates Numbers PID001081.

REQUEST FOR PRODUCTION NO. 8: Please produce all documents upon which you referred to or relied upon to answer any of the foregoing interrogatories.

SECOND SUPPLEMENTAL RESPONSE TO REQUEST NO. 8: Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without waiving said objections, additional documents responsive to this request are attached hereto and marked as Bates Numbers PID000843 – PID00957, PID000965 – PID001001, PID001103 – PID001111, PID001039 – PID001062, PID001068 – PID001069, PID001081 – PID001082, and PID1211 – PID001214.

REQUEST FOR PRODUCTION NO. 9: Please produce all documents that Pioneer Irrigation District intends to introduce as exhibits at the trial of this action.

SECOND SUPPLEMENTAL RESPONSE TO REQUEST NO. 9: Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without waiving said objections, additional documents responsive to this request are attached and marked as Bates Numbers PID000797 – PID001193, PID001068 – PID001078, PID001081 – PID001200, PID001211 – PID001243, and PID001249. In addition, Pioneer may utilize excerpts of old ditchrider notebooks as exhibits. Pioneer made these documents available for inspection in its October 20, 2010 responses to Request for Production Nos. 13 and 15. Due to the volume of those files and difficulty in reviewing and reproducing them, copies of the specific excerpts to be used as exhibits are not available at this time, but will be provided. For now, Mason should assume that the excerpts to be used reflect orders placed with the Boise River water master for diversions into the Caldwell Highline Canal which do not exceed 40 cfs of water.

REQUEST FOR PRODUCTION NO. 10: Please produce copies of any expert analyses, reports, memoranda, or other documents produced by an expert retained to provide services or advice to Pioneer Irrigation District that in any way relates to the basis for the objection filed by Pioneer Irrigation District to water right no. 63-179C or in claiming water right no. 63-179A. This request specifically seeks all documents required to be produced under Rule 26(b)(4) of the Idaho Rules of Civil Procedure concerning the opinions of your experts and the basis therefor.

INITIAL RESPONSE TO REQUEST FOR PRODUCTION NO. 10: Pioneer objects to this request as overbroad and outside the scope of Idaho Rules of Civil Procedure 26(b)(3), 26(b)(4), and 26(b)(4)(B). Pursuant to Rule 26(b)(3), Mason "may obtain discovery of

documents and tangible things . . . prepared in anticipation of litigation or for trial by or for [Pioneer] or by or for [Pioneer's] representative (including [Pioneer's] attorney [or] consultant []) ***only upon a showing*** that [Mason] has substantial need of the materials in the preparation of [Mason's] case and that [Mason] is unable without undue hardship to obtain the substantial equivalent of the materials by other means." (Emphasis added). Pursuant to Rule 26(b)(4), "discovery of ***facts known and opinions held*** by experts expected to testify . . . and acquired or developed in anticipation of litigation or for trial, may be obtained by ***interrogatory and/or deposition*** . . . ." (Emphasis added). Pursuant to Rule 26(b)(4)(B), "[a] party may not discover facts known or opinions held by an expert who has been retained or specially employed by another party in anticipation of litigation or preparation for trial and who is not expected to be called as a witness at trial . . . ."

Notwithstanding such objections, Pioneer responds that, as previously disclosed in Response to Interrogatory No. 7, Pioneer has retained the services of Scott King, P.E. of SPF Water Engineering, LLC as an expert witness in this matter. At this time, Pioneer expects Mr. King to provide testimony regarding the general operational and flow regime of Pioneer's Highline Canal and to prepare maps and other exhibits to illustrate the operation of the Highline Canal, as well as the points of diversion and places of use of the water rights involved. For any other matters outside of this specific scope of testimony, Mr. King is a consulting expert at this time, and the facts known and opinions held by Mr. King as to such other matters are therefore not discoverable at this time. If Pioneer expects Mr. King to testify as to additional matters, Pioneer will supplement this response in accordance with Idaho Rule of Civil Procedure 26 (b) and (e) and the Trial Scheduling Order.

SUPPLEMENTAL RESPONSE TO REQUEST FOR PRODUCTION NO. 10:

Pioneer objects to this request as overbroad and outside the scope of Idaho Rules of Civil Procedure 26(b)(3), 26(b)(4), and 26(b)(4)(B). Pursuant to Rule 26(b)(3), Mason "may obtain discovery of documents and tangible things...prepared in anticipation of litigation or for trial by or for [Pioneer] or by or for [Pioneer's] representative (including [Pioneer's] attorney [or] consultant []) ***only upon a showing*** that [Mason] has substantial need of the materials in the preparation of [Mason's] case and that [Mason] is unable without undue hardship to obtain the substantial equivalent of the materials by other means." (Emphasis added). Pursuant to Rule 26(b)(4), "discovery of ***facts known and opinions held*** by experts expected to testify . . . and acquired or developed in anticipation of litigation or for trial, may be obtained by ***interrogatory and/or deposition*** . . . ." (Emphasis added). Pursuant to Rule 26(b)(4)(B), "[a] party may not discover facts known or opinions held by an expert who has been retained or specially employed by another party in anticipation of litigation or preparation for trial and who is not expected to be called as a witness at trial . . . ."

Notwithstanding such objections, Pioneer responds that, as previously disclosed in Response to Interrogatory No. 7, Pioneer has retained the services of Scott King, P.E. of SPF Water Engineering, LLC as an expert witness in this matter. At this time, Pioneer expects Mr. King (1) to provide testimony regarding the general operational, flow, delivery, and drainage regime of Pioneer's Caldwell Highline Canal and to prepare maps and other exhibits to illustrate the operation of the Caldwell Highline Canal, as well as the points of diversion and places of use of the water rights involved; (2) to provide testimony and mapping regarding the water conveyance facilities historically utilized by the Franklin Ditch Company; and (3) to provide

testimony and mapping regarding the history and development of and relationship between the Franklin Ditch, the old Caldwell Canal, the Highline Canal, and the Caldwell Highline Canal. For any other matters outside of this specific scope of testimony, Mr. King is a consulting expert at this time, and the facts known and opinions held by Mr. King as to such other matters are therefore not discoverable at this time. If Pioneer expects Mr. King to testify as to additional matters, Pioneer will supplement this response in accordance with Idaho Rule of Civil Procedure 26 (b) and (e) and the Trial Scheduling Order. As Pioneer also disclosed in response to Interrogatory No. 7, Jennifer Stevens, Ph.D. may testify as an expert witness in this matter. At this time, Pioneer expects Dr. Stevens to testify regarding the history and development of and the relationship between the Franklin Ditch, the old Caldwell Canal, the Highline Canal, and the Caldwell Highline Canal.

SECOND SUPPLEMENTAL RESPONSE TO REQUEST NO. 10: Pioneer objects to this request as overbroad and outside the scope of Idaho Rules of Civil Procedure 26(b)(3), 26(b)(4), and 26(b)(4)(B). Pursuant to Rule 26(b)(3), Mason "may obtain discovery of documents and tangible things...prepared in anticipation of litigation or for trial by or for [Pioneer] or by or for [Pioneer's] representative (including [Pioneer's] attorney [or] consultant []) ***only upon a showing*** that [Mason] has substantial need of the materials in the preparation of [Mason's] case and that [Mason] is unable without undue hardship to obtain the substantial equivalent of the materials by other means." (Emphasis added). Pursuant to Rule 26(b)(4), "discovery of ***facts known and opinions held*** by experts expected to testify . . . and acquired or developed in anticipation of litigation or for trial, may be obtained by ***interrogatory and/or deposition*** . . . ." (Emphasis added). Pursuant to Rule 26(b)(4)(B), "[a] party may not discover

facts known or opinions held by an expert who has been retained or specially employed by another party in anticipation of litigation or preparation for trial and who is not expected to be called as a witness at trial . . . ."

Subject to and without waiving such objections, Pioneer responds that documents responsive to this request have already been produced as Bates Numbers PID000369, PID000392 – PID000395, PID000389 – PID000391, PID000404, . Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without waiving said objections, additional documents responsive to this request are attached hereto and marked as Bates Numbers PID000797 – PID000799, PID001103 – PID001111, PID000803 – PID000842, PID001032 – PID001067, PID001090 – PID001102, PID001203 – PID001207, PID001194 – PID001232, PID001243 – PID001279,

REQUEST FOR PRODUCTION NO. 12: Please produce all documents supporting or relating in any way to your objection to the priority date recommended for Water Right No. 63-32580.

SECOND SUPPLEMENTAL RESPONSE TO REQUEST NO. 12: Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without waiving said objections, additional documents responsive to this request are attached hereto and marked as Bates Numbers PID001083 – PID001089.

REQUEST FOR PRODUCTION NO. 13: Please provide all measurements in your possession or control, or that of your expert, SPF Water Engineering, of flows in the Highline Canal, Mason Creek, Five Mile, Ten Mile and Fifteen Mile drains.

SUPPLEMENTAL RESPONSE TO REQUEST NO. 13: Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without waiving said objections, additional documents responsive to this request are attached hereto and marked as Bates Numbers PID001247.

REQUEST FOR PRODUCTION NO. 14: Please produce all measurements or calculations in your possession or control, or that of your expert, SPF Water Engineering, of the capacity of the Highline Canal.

SECOND SUPPLEMENTAL RESPONSE TO REQUEST NO. 14: Pioneer incorporates its prior stated objections to this Request for Production. Subject to and without waiving said objections, additional documents responsive to this request are attached hereto and marked as Bates Numbers PID000797 – PID000799 and PID001220 – PID001242.

DATED this 3rd day of December, 2010.

MOFFATT, THOMAS, BARRETT, ROCK & FIELDS, CHARTERED

By _____
Dylan B. Lawrence – Of the Firm
Attorneys for Pioneer Irrigation District

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 3rd day of December, 2010, I caused a true and correct copy of the foregoing **PIONEER IRRIGATION DISTRICT'S SECOND SUPPLEMENTAL RESPONSES TO MASON CREEK DITCH COMPANY'S FIRST SET OF DISCOVERY REQUESTS AND SECOND SUPPLEMENTAL RESPONSES TO MASON CREEK DITCH COMPANY'S SECOND SET OF DISCOVERY REQUESTS** to be served by the method indicated below, and addressed to the following:

Mason Creek Ditch Company
Represented by:
Albert P Barker
BARKER ROSHOLT & SIMPSON LLP
1010 W. Jefferson, STE 102
P.O. Box 2139
Boise, ID 83701-2139

( ) U.S. Mail, Postage Prepaid
(/) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Director
IDAHO DEPARTMENT OF WATER RESOURCES
322 E. Front Street, 6th Floor
P.O. Box 83720
Boise, ID 83720

( ) U.S. Mail, Postage Prepaid
(/) Hand Delivered
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Dylan B. Lawrence

CANYON COUNTY PEOPLE TO ORGANIZE A WATER DISTRICT

Caldwell Record: At a meeting held Thursday at the city hall, the following proceedings were had:

R. L. Cushman was elected chairman and H. A. Cellilks secretary. The report of the committee recently appointed to obtain information in regard to the Phyllis and Strahorn ditches reported that they had secured the services of A. J. Wiley for that purpose at a cost of $500, and that a considerable portion of the $500 had been subscribed, but that Mr. Wiley would await final payment until the question of whether a district should be organized was settled. In the event of the district being organized his pay would be a proper charge, but in the event of failure, then the subscribers would be called upon to pay the bill. They also reported that the present ditch and water rights under the Caldwell ditch could be purchased for $10,000 and the Phyllis for $15,000, that these prices were asked by the owners and that the committee had no knowledge as to whether less sums would be accepted, but that the prices given were guaranteed to the committee.

The report of the committee was then accepted.

Mr. A. J. Wiley was then called for. He stated that he regretted that his report was yet in an unfinished state and that he could furnish very little data regarding the Phyllis. That the acreage under the Caldwell high line survey was 12,543 acres; that a ditch on the side hill 24 feet wide on the bottom, three and one-half feet deep, bank one and one-half feet above water and 10 feet wide on top would carry sufficient water to supply all the free rights and give 50 inches of water to 63½ acres to the owners of the new ditch. The high line would leave the old ditch at Ten Mile, and the old ditch be used from that point as a distributing lateral.

Mr. Wiley's report on the Strahorn was very complete as to items of cost. He stated that the total cost of enlargement of the present canal would amount to $43,000, to which would be added the purchase price of $10,000. This would make the cost to owners about $4 per acre and the maintenance cost about 40 cents per acre. He also stated that he had measured the two canals during the month of June and found that Phyllis was carrying 4500 inches and the Strahorn 3700. The Record will furnish a detailed statement of the engineer's report so that those interested may know on what basis his figures of cost are made. It is essential that all parties interested should know the exact condition of both ditches in order to vote intelligently on the proposition should the commissioners decide to call an election for the formation of one or both districts.

PID000797

CANALS IN CANYON

Interesting Report Made by Engineer A. J. Wiley on the Two Proposed Irrigation Districts.

Recommendation That One District Be Established Under the Phyllis Canal and Another Under the Strahorn, Rather Than One to Cover the Entire Territory—Elaborate Estimates Covering Every Feature of the Project.

A. J. Wiley, the well known engineer, has prepared a very interesting and instructive report on the proposed irrigation districts in Canyon county under the Strahorn and Phyllis canals. The board of county commissioners will meet today to consider his report, and a report by State Engineer Ross, on the same subject.

The people in the vicinity of Caldwell desire to organize a district under the Strahorn canal, which they can purchase for $10,000. Those about Nampa desire a district under the Phyllis, upon which a price of $75,000 is set, to embrace the proposed Caldwell district. Mr. Wiley recommends two districts, and in this recommendation Mr. Ross concurs.

Mr. Wiley's report follows:

R. M. Gwinn, Esq., Chairman of the Committee for Irrigation Districts Under the Phyllis and Caldwell Canals, Canyon County, Idaho—

Dear Sir: In accordance with your instructions I have made a careful examination of the Phyllis and Caldwell canals, with reference to the points upon which your committee wished to be informed, viz.:

First—What is the value of each of these canals?

Second—What is the total area of irrigable land tributary to each?

Third—What will be the cost of enlarging the canals to properly irrigate this land?

Fourth—Assuming that the Phyllis canal can be bought for the sum of $75,000 and the Caldwell canal for $10,000, what will be the cost per acre of the enlarged canals, and what the probable cost per acre of maintaining them?

Fifth—What is the value of the water rights owned by these canals?

Sixth—What is the available water power?

Seventh—Give facts and figures upon which you base your conclusions.

The object of this investigation is the acquisition of information that will assist in the formation of irrigation districts under the above mentioned canals.

An act, approved March 6, 1899, provides "for the organization and government of irrigation districts, and to provide for the acquisition of water and other property, and for the distribution of water thereby for irrigation purposes," etc.

Under the provisions of this act, when two-thirds of the votes cast by real clents and land owners in a proposed irrigation district at a regularly prescribed election held for that purpose, shall be in favor of the formation of an irrigation district, the board of county commissioners shall declare it duly organized as such. The act also provides that the ballots cast at this election shall contain the names of persons to be voted for as a board of directors of the district.

The board of directors shall formulate a general plan for the construction or purchase of the necessary works and shall have it endorsed by a competent engineer, whose maps, plans and estimates shall be submitted to the state engineer, who shall make a complete report upon the whole subject to the said board. The board shall then determine the amount of money necessary to be raised and shall call a special election, submitting to the voters the question of bonding the district for the amount necessary to provide the required works. If two-thirds of the votes cast are in the affirmative, the board shall proceed to issue bonds bearing interest at a rate not in excess of 7 per cent, and redeemable in 10 series, the first due in ten years, and one series due each year thereafter until the 20th year, when the last are redeemed.

The funds necessary to pay annual interest on the bonds, and to provide for their redemption when due, shall be derived from annual assessments upon all the land in the district.

The expenses of operating the constructed works may be paid by tolls collected from the users of water, or by levy upon all the land as it appears upon the assessment roll, and the assessments shall constitute a lien upon the property until they are paid or the property sold in payment thereof.

The investigation of the existing works which it is proposed to purchase was made in September and October, 1899, and consisted with relation to the Phyllis canal of a careful survey of the side hill section, and an examination of the plans section assisted by the notes of the original surveys and construction, which were furnished by the courtesy of Mr. John D. Bloomfield, manager of the Phyllis.

Upon the Caldwell canal a careful survey was made of the side hill section, and an original survey of a new line, leaving the present canal at the end of the side hill work and running at a higher level.

The Phyllis canal is operated for a length of 25 miles, of which three miles are upon steep side hill and the remainder upon generally level country. The canal is limited in capacity by the side hill section which was built originally upon a narrow margin of safety, and has deteriorated with each succeeding year, until every attempt to force an additional head of water through it is followed by a break in the canal and a dry spell for its customers.

Its capacity is now about 56 cubic feet per second, though it was designed for a much larger discharge. As originally constructed the canal was 12 feet wide on the bottom, 20 feet wide at the water level, and should have had a depth of 4 feet of water. Upon the constructed grade of 25 inches per mile its capacity would have been 115 second feet. At the town of Nampa it was reduced to a bottom width of 8 feet, a top width of 12½ feet and a depth of 2½ feet of water, the grade remaining as above. This section would have had a capacity of 58 second feet or 2550 inches.

The canal can be restored to its original capacity by the strengthening of the side hill section and occasional repairs upon the plain sections.

PRESENT VALUE OF THE PHYLLIS CANAL.

The gross revenue of the canal for the year 1899 may be placed as follows:

2063 acres, irrigated at $1.50	$3,051 50
2½ sec. feet for town irrigation	150 00
	$4,721 50

The operating expenses for this year were probably in excess of that given below, which is estimated for an average year. A number of serious breaks in the side hill section ran the expenses for the present year much higher than the average. It must be understood that the operating expenses are estimated, and not taken from the books of the owner.

ESTIMATED AVERAGE OPERATING EXPENSES OF THE PHYLLIS CANAL.

ESTIMATE No. 1.

Superintendent	$1,200 00
Three line riders for six months, at $50 per month	300 00
Allowance for repairs	1,500 00
Sinking fund for perishable structures (2 1-3 per cent, $3424.80)	285 57
Taxes	457 50
	$4,243 07

Deducting this amount from the gross revenue leaves a net revenue of $478.43.

Capitalizing this revenue upon the basis of a 6 per cent interest, we find the present value of the canal to its owner as $7967.17.

It must be considered, however, that while this represents its present value, as a revenue producer, it has a certain prospective value from the fact that its carrying capacity is limited by the side hill section, and that it may be largely increased with comparatively small expenditure for repairs.

These repairs consist of the cleaning out of the bottom, and occasional strengthening of the banks of the plains section, to make it safe for a depth of 4 ft. of water with a bottom width of 12 feet, and such additions to the side hill section as will make it capable of delivering the full capacity of the plains sections. The estimated cost of these repairs is as follows:

ESTIMATE No. 2.

22,050 cu. yards excavated on side hill, at 20c	$4,410
12,000 cu. yards excavated from puddle trench at 10c	1,200
12,500 cubic yards back filling in puddle trench at 10c	1,250
Waste gate and channels	650
Cleaning canal and strengthening bank on 15 mil. at $200	3,000
	$10,500
Add 10 per cent for supervision	1,050
Total	$11,550

These repairs will place the canal in condition to carry with reasonable safety a depth of four feet of water, with a bottom width of 12 feet and a top width of 20 feet. The cost of the canal is 2.112 feet per mile and the capacity would be 165 second feet.

Assuming that full sale would be found for this amount of water at the same rate as now charged, the revenue derived from the sale of water for 5160 acres would be $7740.

The operating expenses of the larger volume of water would be practically the same as for the present capacity of canal, except in the allowance for repairs which may be reduced by $500 per year, leaving the operating expenses $3743.57. Deducting this from the gross receipts leaves a net revenue of $3996.53. This capitalized at 6 per cent interest gives a total prospective value of $66,915.83. This prospective value necessities as given above an expenditure of $11,550 in repairs, and this, deducted from the total value, leaves a net prospective value of $55,365.83.

The revenues and values deduced above has been based upon the duty and cost of water under the present management of the canal, and, while I am of the opinion that a reduction of water to the user could be greatly reduced, and the revenue to the canal owner greatly augmented, by increasing the duty of water under a proper system of measurements and distribution, we would not be justified in basing revenues and values to the owner upon conditions which he may never achieve.

VALUE OF PHYLLIS CANAL TO AN IRRIGATION DISTRICT.

We will now consider the value of a canal to an irrigation district to be formed under it. In order to determine the value of a property, we should know its capacity or output and the profit at which the output can be sold. In the case of a canal owned by an irrigation district, the water being delivered to the users at actual cost and the element of profit eliminated, there is no basis for the determination of values by the usual process of capitalizing revenue. We may arrive at some idea of the value of the canal to an irrigation district by considering that its purchase would place the residents of the district in the same position as that occupied by the purchasers of water rights under the canal, where the water rights are accompanied by shares in the ownership of the canal. In the latter case, the canal is purchased by individuals who must afterwards organize for its management, and, in the first case, by a district already organized. The following instances are selected as showing prices at which water rights are being sold and proposed for sale by various organizations under similar conditions to those existing under the Phyllis canal:

TABLE No. 1.

	Per Sec. foot.
Ditch constructed by company and interest transferred to purchasers of water rights.	
Boise Land and Water Co. (Ridenbaugh ditch), Canyon county	$100
Idaho Land and Colonization Co. (Sebree canal)	500
CONTEMPLATED PURCHASES.	
Farmers' Irrigation Co., Payette valley	$200
Farmers' Union Ditch Co., Boise valley	200
CAREY ACT DITCHES (Proposed.)	
Marysville Canal and Imp. Co.	$200
Am. Falls Canal & Power Co.	500

From the above it will be seen that the ditches already constructed and selling water under precisely the same conditions as the Phyllis are charging from $100 to $500 per second foot. At the highest price charged the present value of the Phyllis would be $82,500, and at the lowest price $33,000. The first price is that fixed by a company which makes its profits from the sale of water rights in the canal, and the price is so fixed that when the water rights are all sold it will have received back its principal with what it considers reasonable interest.

The lowest price represents the actual cost of water to a ditch constructed entirely by the farmers living beneath it. The ditch is 21 miles long and built over a more than usually difficult country. The average price of water in the two parallel cases when the canals were constructed and water rights sold as an investment for profit is $675 per second foot.

On this basis, the present value of the Phyllis is $55,050; and, estimating on the same basis, the value resulting from repairing the side hill section would be $37,837, less $12,750 the cost of repairs, leaving a net possible value of $24,125.

In order to secure a more definite idea of the value of the Phyllis, the following estimate is submitted. This shows the cost of reconstructing in its present condition from the head to the Pipe Line gulch to be as follows:

ESTIMATE No. 3.

Cost of rebuilding Phyllis in present condition at present time:

141,749 cu. yards gravel, at 15c.	$21,262 35
250,583 cu. yards level excavation, at 10c.	25,058 30
37,380 cu. yards overhaul, at 2c	3,550 60
Diversion works	200 00
Headgate	200 00
Flumes	1,810 00
Bridges	1,125 00
Culverts	850 00
Gates	265 00
	$55,452 25
Add 10 per cent for engineering and supervision	5,545 22
	$61,004 60
256 acres right of way, at $15.	3,960 00
Total cost of reconstruction	$64,964 60
Depreciation of structures, 75 per cent of $1815.50	2,579 00
Present value	$62,424 60

The depreciation upon the wooden structures with the exception of the bridges is estimated as being 75 per cent of the cost of reconstruction. This cost is estimated above as 12126.30, and the depreciation is 12579, leaving a net present value for the works of $62,424.

AREA OF IRRIGABLE LAND TRIBUTARY TO THE PHYLLIS.

The irrigation district projected under the Phyllis is bounded by the Phyllis canal on the south and east, by the Pipe Line gulch on the west, by the line of the north end by the Deer Flat or Pipe Line gulch on the west, and has an area of 22,383 acres.

The capacity of the canal designed to irrigate this district was computed upon the basis of 2½ acres of land to the second foot, or 50 inches of water.

In examining this duty, which may seem high when compared with the amount of water actually being used under the Phyllis and other canals, the following are the considerations governing its determination. The first report of the state engineer of Idaho says: "In figuring upon irrigation propositions in this state, it will generally be the practice of this office to assume that it is necessary to have 1 inch of water for each 2½ acres of land to be irrigated, and that the works for its delivery should be able to deliver at least 20 per cent of the full quantity within a period of 10 days." In other words, enough water should be supplied to each acre of irrigated land during the season to cover it to a depth of 2½ feet. This is applied to cover the greater portion of this amount needed in excessively hot weather, the canals would be unable to supply 5 per cent of the entire quantity in any one day. It will be noted also that this amount must actually be delivered upon the land, and the duty under the canal must be further increased to provide for the loss by evaporation and seepage between the river and the land.

From the data we have "this loss (2 to 2½ inches per day on the wetted surface) is the best basis we have for figuring losses from canals under similar conditions."

These conclusions of the state engineer were largely deduced from experiments made upon the Phyllis canal.

The amount of water actually used by all the land irrigated by the Phyllis canal during the season of 1898 would have covered the ground to a depth of four feet one inch.

The amount used upon one-third of the entire tract, selected as including the less extravagant users of water, and having very nearly the same proportional area of different crops as the entire tract, was sufficient to have covered it to a depth of a trifle over 2½ feet. (2.34.)

Carefully conducted measurements by the state engineer during the season of 1899, determined that the amount of water used upon a tract of 125 acres of land near Nampa, of which 28 per cent was orchard, 15 per cent old alfalfa and 57 per cent new alfalfa would have covered it to a depth of 2.11 feet. The waste water was not measured, but a considerable percentage ran off the lower end of the tract and could have been used.

These facts and conclusions supported by many others, some of which will be referred to later on, have led to the decision to use 2½ acre feet as the amount necessary to apply upon each acre of the district.

The allowance of 2½ inches in depth per day from the wetted perimeter of the canal would cause a total loss of only 6 per cent in the canal irrigating the entire district. Judging from results in other localities and from the fact that the Phyllis experiments were made in cool, cloudy weather, when the evaporation was comparatively slight, it was decided to estimate a loss of 20 per cent between the river and the land. Estimating upon this loss of 20 per cent in the canal and 5 per cent upon covering the entire irrigable land to a depth of 2½ feet during the season, gives the canal a capacity sufficient to deliver 1 per cent of this in a single day, we reach the conclusion that the canal will be required to carry one cubic foot of water per second for each 43½ acres of land.

The following table from "Wilson's Irrigation Engineering" gives the number of acres irrigated by a cubic foot of water per second in various localities, the water being measured at the head of the canal.

TABLE No. 2.

	Acres.
Northern India, one second foot	80-150
Italy, one second foot irrigates	57- 70
Colorado, one second foot irrigates	80-120
Utah, one second foot irrigates	60-120
Montana, one second foot irrigates	80-100
Wyoming, one second foot irrigates	70- 80
Nebraska, one second foot irrigates	60- 80
New Mexico, one second foot irrigates	60- 80
Arizona, one second foot irrigates	100-150
San Joaquin valley, Cal., one second foot irrigates	100-150
Southern California	75- 100

The grade of the canal is 2.115 feet per mile throughout its length, and from the headgates to Five Mile creek has a bottom width of 12 feet, top width of 23.4 feet and a depth of 4½ feet.

Its capacity will be 375 second feet, or 18,750 inches. The banks will be 5½ feet high and 8 feet wide on top in the level country, and 12 feet wide on the side hill section, which will be further strengthened by a puddle wall in the outer edge of the bottom of the canal. The following table gives the dimensions and capacities of the various sections of canal:

TABLE No. 3.

Sta. to Sta.	Capacity in Sec. ft.	Bottom width.	Top width.	Depth of water.
0- 235	375	12	23.4	4.25
235- 425	360	12	23.12	4.25
425- 720	360	12	23.12	4.00
720-1040	345	12	23.12	3.75
1050-1422	75	10	17.52	1.00
1422-1859	51	8	13.52	2.75

In order to reach the dimensions and capacities shown in the above table the Phyllis will require enlarging for the first 27 miles. For the last 3 miles the present canal is large enough.

The cost of enlarging to the above capacities will be $71,712.24, as follows:

ESTIMATE No. 4.

253,448 cu. yards side hill work, at 15c	$37,516 20
249,087 cu. yards level excavation, at 10c	24,908 70
12,000 cu. yards excavation for puddle trench, at 10c	1,200 00
18,000 cu. yards back-filling for puddle trench, at 10c	1,800 00
Headgate	500 00
Wastegates	1,695 50
Protected bank	2,250 00
Bridges	2,375 38
Flumes and drops	2,597 00
Culverts	540 00
Right of way	1,145 00
	$85,231 13
Engineering and supervision	6,538 11
	$71,813 24

Allowing the sum of $75,000 for the purchase of the Phyllis canal, the total cost of the irrigation system for 22,383 acres will be $146,813.24. Placing the cost of organization of the district at $1,250.76, the total first cost of irrigating 22,383 acres will be $148,000, or $6.34 per acre.

The following tables are submitted in order that a comparison may be made between the first cost of irrigation per acre upon the average of all the canals constructed in each of the arid states and that of the Phyllis canal under various conditions.

The following table from the United States Census report for 1890 shows the average first cost of water per acre in the various arid states:

TABLE No. 4.

Arizona	$ 7 07
California	25 31
Colorado	7 15
Idaho	4 74
Montana	4 63
Nevada	7 58
New Mexico	5 91
Oregon	4 64
Utah	30 85
Washington	4 03
Wyoming	3 62

Average of all, $8.35.

TABLE No. 5.

Phyllis canal at valuation of $75,000.

	First cost per acre.
Present condition and acreage	$3 61
Repaired and restored to original size and proportional acreage	3 20
Repaired and restored to original size, allowing 1 sec. ft. for 43½ acres	3 64
Enlarged to cover entire district, allowing 1 sec. ft. for 43½ acres	6 34

OPERATION.

ESTIMATE No. 5.

Showing the yearly cost of operation of the completed canal:

Watermaster	$ 600
Three line riders at $50 per month for six months	900
Maintaining diversion works	250
Repairing brakes and incidental expenses	2,750
Total expenses per annum	$5,500

COST OF ADMINISTRATION.

Sinking fund, covering depreciation of perishable structures $ 560

Administration and legal expenses 540

Total $1,100

ASSESSMENTS.

Assuming that all the bonds are issued at once and the canal completed in the first year of organization, that the bonds bear 6 per cent interest, that the district starts with 3700 acres under irrigation, and that this amount increases by 500 acres per year; that all the operating expenses are raised by charges upon the water used, and other expenses divided equally by acreage, the following table shows the assessments per acre upon both irrigated and desert land for 21 years after the organization.

TABLE No. 6.

Showing assessments for the first 21 years for $300,000 bond issue in first year of organization:

	Interest and Administration.	Redemption.	Operation.	Acres Irrigated.	Assessments. Irrigated.	Assessments. Desert.
1	3,000.00		3,500	3,700	1.45	.26
2				4,200	1.31	.26
3				4,700	1.19	.26
4				5,200	1.08	.26
5				5,700	.97	.26
6				6,200	.92	.26
7				6,700	.88	.26
8				7,200	.83	.26
9	8,300.00			7,700	.82	.26
10	9,288.80	6,000.00	3,609	8,200	1.13	.70
11	8,648.00	7,000.00		8,700	1.13	.72
12	9,206.00	8,000.00	3,900	9,200	1.15	.77
13	9,702.80	9,000.00		9,700	1.16	.80
14	10,136.00	10,000.00		10,200	1.16	.82
15	7,418.00	12,000.00		10,700	1.17	.84
16	6,783.80	13,000.00		11,200	1.16	.87
17	5,568.80	15,000.00		11,700	1.24	.91
18	5,020.80	16,000.00		12,200	1.29	1.00
19	2,856.00	18,000.00		12,700	1.42	1.03
20	2,788.00	1,413.00		13,200	.43	.18
21	2,713.10	1,538.00		13,700	.43	.19
22	2,631.25	1,663.00		14,200	.43	.20
23	2,542.36	1,781.00		14,700	.43	.20
24	2,446.53	2,547.00		15,200	.43	.21
25	2,343.70	2,800.00		15,700	.44	.22
26	2,233.90	3,113.00		16,200	.45	.23
27	1,847.13	3,679.00		16,700	.45	.24
28	1,654.35	4,245.00		17,200	.45	.25
29	1,571.62	4,529.00		17,700	.46	.26
30	1,100.00		5,500	18,200	.45	.25
31				18,700	.44	.25
32				19,200	.43	.24
33				19,700	.43	.24
34				20,200	.42	.23
35				20,700	.42	.23
36				21,200	.41	.23
37				21,700	.41	.23
38				22,200	.41	.23
39				22,700	.41	.23
40				23,200	.40	.22
41				23,700	.40	.22
42				24,200	.40	.22
43				24,700	.40	.22
44				25,200	.39	.22
45				25,700	.39	.22
46				26,200	.39	.22
47				26,700	.39	.22
48				27,200	.39	.22
49				27,700	.39	.22
50				28,200	.39	.22

The table shows that if we start with an irrigated area of 3700 acres and increase by 500 acres each year the assessment upon the irrigated area will be $1.52 per acre the first year, and will decrease gradually to 45 cents in the 10th year. The 11th year, which begins the area of redemption, will increase the assessment to $1.13, and it will be gradually increased to $1.42 in the 20th year. In the 21st year the bonds having been redeemed, and the only expenses being those of operation and administration, the assessment upon the irrigated land will be 22 cents per acre, and will gradually decrease with additional acreage of the land to be irrigated, when it will be but 20 cents per acre.

The desert land will be assessed at 43½ cents per acre per year for the first year, when it will be increased to 75 cents, and will steadily increase until the 20th year, when it will be $1.14 per acre. It will then drop to 5 cents per acre, and so continue as long as it remains arid.

RADIAL ENLARGEMENT.

We will now consider the possibilities of gradually enlarging the Phyllis to keep pace with the demand for water, and the consequent necessity for interest charges during the early life of the district.

The first course that suggests itself is the retention of the deficient side hill section to a parity with the plains section.

The amount required for this purpose as given in Estimate No. 2, would be $13,750 and the work done would be of no value as a part of the final construction.

The method would be precisely the same as that of paying premiums to a creditor to secure time upon a debt which must finally be paid in full with interest. The subsequent method which is recommended to your consideration is the construction of the canal from the head to Five Mile creek of its full final section and capacity. This section can be operated to its full capacity using Five Mile creek as a waste. At this rate of increase in the irrigable land assumed in table 4 the present canal beyond Five Mile creek would have ample capacity to serve the district for 20 years.

The following is an estimate of the cost of the canal complete to Five Mile creek as stated above:

ESTIMATE No. 6.

183,448 cubic yards gravel at 15c	$27,516 20
53,450 cubic yards puddle at 10c	5,345 00
24,000 cubic yards puddling at 10c	2,400 00
13,000 feet B. M. in waste gates at $25	325 00
53,400 feet B. M. in waste gates at $20	1,068 00
13,950 feet B. M. in lateral gates at $25	348 75
4,650 feet B. M. in culverts at $25	116 25
1,000 yds. excavation for bridges	300 00
25,000 feet B. M. in bridges	1,250 00
	$38,268 90
Right of way for waste channels	500 00
Right of way for canal to Five Mile creek 20 a	450 00
	$39,218 90
10 per cent for engineering and supervision	3,134 00
	$42,372 90

Assuming the purchase price at $75,000 and the expenses of organization at $1228 the first issue of bonds would be $120,000. The cost of operation would remain $2500 and of administration $1100 as in estimate No. 5.

The second bond issue will take place in the 11th year and will be for $38,300 to complete the enlargement of the canal.

The following table gives the assessments per acre per year for 21 years, starting with 2200 acres under irrigation and increasing the irrigated area 500 acres per year.

TABLE No. 7.

Yearly assessments for 21 years for bond issues at two periods:

	Interest and Administration.	Redemption.	Operation.	Acres Irrigated.	Assessments. Irrigated.	Assessments. Desert.
1	2,993.00		3,500	2,200	1.53	.43
2				2,700	1.31	.38
3				3,200	1.19	.43
4				3,700	1.08	.43
5				4,200	1.08	.64
6				4,700	1.01	.61
7				5,200	.97	.61
8				5,700	.93	.61
9				6,200	.90	.61
10				6,700	.87	.61
11	9,999.00	7,415.00		7,200	1.39	.76
12	9,153.10	8,245.00		7,700	1.20	.90
13	8,395.00	9,075.00		8,200	1.10	.91
14	8,236.35	11,564.00		8,700	1.31	....
15	7,634.25	12,317.00		9,200	1.35	.91
16	6,983.70	14,630.00		9,700	1.36	.91
17	6,285.90	15,373.00		10,200	1.37	.91
18	5,615.12	19,279.00		10,700	1.54	1.05
19	4,852.38	22,215.00		11,200	1.42	1.13
20	2,521.63	23,723.00		12,700	1.42	1.14
21	1,100.00		5,500	13,200	.47	.85

To operate the canal to its full capacity of 375 second feet, or 18,750 inches, would require 8,625 acres. This would be reached in the 15th year. The 16th year, which begins the area of redemption, will increase the assessment to $1.13, and it will be gradually increased to $1.42 in the 20th year. In the 21st year the bonds having been redeemed, and the only expenses being those of operation and administration, the assessment upon the irrigated land will be 22 cents per acre, and will gradually decrease with additional acreage of the land to be irrigated, when it will be but 20 cents per acre.

The assessment on the desert land will remain constant as the above figures and that of the irrigated land will decrease to 20c per acre when there is no longer any desert land in the district.

VALUE OF THE WATER RIGHT OF THE PHYLLIS.

Diversion and beneficial use are the conditions laid down by the courts as establishing a right to the waters of a stream, and the amount claimed in the notice of location has no value except as an expression of intention upon the part of the locator. This intention if not carried into effect has no force when opposed to even a subsequent location which has been made in good faith.

The water right of the Phyllis is like that of any other canal, good simply for the amount it can divert and show a beneficial use for prior to the time when other canals have done the same by all the water of the river.

It would not be necessary that the diverted waters should have been actually applied to irrigation, provided they should have been brought to a point where they were obtainable by the canals for use were designed to reclaim. A reasonable time is allowed by the courts for the gradual extension of irrigation upon the tributary tracts.

WATER POWER OBTAINABLE FROM THE PHYLLIS—PRESENT VALUE.

There is a drop of 13.54 feet in the Phyllis at the town of Nampa, and the power available from this source is 49 horse power on the wheel shaft, derived from a flow of 40 cubic feet per second in the canal. The value of power varies from $5 per horse power per annum in some localities to hundreds of dollars in others and is controlled entirely by the supply and demand. There is no power being sold in Nampa, at the present time and below the nearest point at which we can find a criterion. The price paid the Boise and Nampa canal by the Capital Electric Light company is $25.00 per horse power per year.

Assuming that a demand exists for the power, the value at the above price would be $1225 per year, but as the canal is only operated for six months we may place the value at $500 per year. It is extremely doubtful if any purpose could be found for which water power for only six months per year would be desirable at any price, and, as the cost of operation for the six months not covered by the irrigation season must be charged against the power alone, there would be no possible profit in operating the canal so as to furnish power for the entire year.

FUTURE POSSIBLE VALUE TO THE DISTRICT.

From table No. 3 the capacity of the enlarged canal at the Nampa drop will be 250 second feet, and the power on the wheel shaft would be 2750 horse power.

The value per year at $25 per horse power would be $6875, and deducting from this the operating of 14 miles of canal for six months at a cost of $1400, which is proportional to the operation of the entire canal at $2500, we have a net possible value of $5475 per year from the water power.

THE CALDWELL CANAL.

The Caldwell canal has a measured.

(Continued on page six.)

PID000798

CANALS IN CANYON

[Continued from Page Three.]

capacity of 75 second feet but is encumbered by a free water right requiring the delivery of 27 second feet free of all charges for operation and maintenance.

In estimating its value we will therefore be obliged to consider its capacity as reduced to 48 second feet by the deduction of this free right.

In considering the value of the Phyllis canal we found that associations operating in this section and selling water rights accompanied by a proportional share in the canals were asking from $300 to $500 per second foot. Upon this basis the Caldwell canal would be worth from $14,400 to $24,000. The sum of $300 is the actual cost to their owners for each second foot capacity of two community ditches, constructed, owned and operated by two associations of irrigators.

At the proposed price of $10,000 for the Caldwell ditch its unencumbered present capacity would cost $208 per second foot. Upon the basis of 6½ acres per second foot of canal capacity it would irrigate 3048 acres at a cost of $3.28 per acre. In the table from the United States census, given under the Phyllis canal, the highest average first cost per acre at which any state in the west had irrigated its lands was given as $3.62, the highest was $18.34, and the average $1.15. Later on in this report it will be shown that the cost per acre of this canal enlarged to cover 12,500 acres will be $3.22, reversing the usual rule that the cost of the canal per acre should diminish as the acreage for which it is constructed increases, and showing conclusively that the price asked for this canal is much less than the cost of reconstructing it at the present time.

The following table shows the cost per acre and per second foot of water from various canals all reduced to the same level by allowing one second foot for 6½ acres of land.

TABLE No. 5.

	Per Acre.	Per Sec. Ft.
Average of Idaho	$ 4.74	$281.00
Average of Montana	4.62	294.00
Average of Utah	10.55	670.00
Average of Washington	4.62	256.00
Average of Wyoming	3.62	223.00
Boise Land & Water Co. (Methodist)	10.00	635.00
Idaho Land & Colonization Co. (Sejice)	7.87	500.00
Farmer's Union Ditch Co. Limited	4.73	300.00
Farmer's Irri. Co. (Payette Valley)	4.73	300.00
Phyllis Canal	12.79	873.00
Phyllis enlarged	6.34	402.00
Caldwell Canal	3.78	296.80
Caldwell Canal enlarged	4.33	256.09

AREA OF THE CALDWELL DISTRICT.

The acreage under the Caldwell canal is based upon a new line upon a higher level, diverging from the present canal at the point where it emerges upon the mesa, near Ten Mile creek. This is rendered possible by using a uniform grade of 25 inches per mile, which is lighter than the present grade but is as heavy as a canal of the required capacity will stand.

Under this line it is found that there will be an area of 12,700 acres needing irrigation. Using the same duty of water discussed and adopted previously in this report, and providing extra capacity for the free water right of the Franklin Ditch company, the first section of canal will require a capacity of 270 second feet.

It will have a bottom width of 24 feet, width at water line of 33 1-3 feet and a depth of 3½ feet with banks five feet high and ten feet wide on top.

The following table shows the dimensions and capacities of the various sections.

TABLE No. 6.

Section.	Locality.	Bottom.	Top.	Depth.	Sec. Ft.
0 to 12	Head to Mesa	24	33.3	4.6	223
121-240	Mesa to Indian Cr.	18	28.0	4.3	115
241-570	Indian Cr. to 16 mi.	14	25.3	3.0	102
571-940	16 mi. to Lavan gulch	10	16.3	2.7	42
940-1057	Lavan G. to 21st mi.	8	15.0	2.3	30
1057-1270	21st mi. to pipe line Cr.	6	11.3	2.0	26

The following estimate places the cost of extending and enlarging the canal to the above dimensions at 193,900.43.

ESTIMATE No. 7.

Canal completed to dimensions and capacities given in table No. 9.

14,000 cubic yards gravel excavation at 15c	$21,412.50
1520 cubic yards hard pan in "Big Cut" at 25c	382.50
207,420 cubic yards earth excavation at 10c	20,742.00
165,904 ft. B. M. lumber in flumes at 125	2,647.60
10,155 ft. B. M. lumber in waste gates at $25	253.88
8130 ft. B. M. lumber in head gates at $25	203.25
19,740 ft. B. M. lumber in lateral gates at $25	494.00
3570 ft. B. M. lumber in culverts at $25	96.75
45,600 ft. B. M. lumber in bridges at $25	1,140.00
	$47,374.48
169 acres right of way at $15	2,535.00
	$49,909.48
10 per cent for engineering and supervision	3,990.95
	$53,900.43

Placing the purchase price of the Caldwell canal at $10,000 and the cost of organization at $1,000.57 we have a total cost of $55,000 for the irrigation of 12,700 acres of land, or a first cost of $4.33 per acre.

The probable cost of operation will be $2500 per year as shown by the following estimate.

ESTIMATE No. 8.

Water master	$ 600.00
Two line riders for six months at $50	600.00
Diversion from river	200.00
Allowance for breaks and general repairs	1100.00
	$2500.00

The probable cost of administration will be $500, as follows:

Sinking fund for perishable structures, 2 per cent. on $3500	$280.00
Expenses of secretary and legal fees	220.00
	$500.00

The following table shows the probable cost per year per acre, assuming that interest, redemption and administration are assessed equally to all the land and that operation expenses are charged entirely to the irrigated land. The amount of irrigated land being taken at 2000 acres the first year and increasing by 400 acres per year.

TABLE No. 10.

Complete construction by single bond issue.

	Interest and Administration.	Redemption	Operation	Acres Irrigated	Assessments. Irrigated.	Assessments. Desert.
1	3,190.00		2,500	2,000	1.71	.22
2				2,400	1.36	.22
3				2,800	1.21	.22
4				3,200	1.11	.22
5				3,600	1.02	.22
6				4,000	.95	.22
7				4,400	.89	.22
8				4,800	.83	.22
9				5,200	.80	.22
10				5,600	.78	.22
11	4,190.00	2,750.00		6,000	.86	.51
12	3,925.00	3,300.00		6,400	.96	.57
13	3,777.00	3,850.00		6,800	.96	.57
14	3,565.00	4,400.00		7,200	.97	.62
15	3,718.00	4,950.00		7,600	.97	.61
16	2,945.00	5,500.00		8,000	.92	.56
17	2,615.00	6,050.00		8,400	.85	.63
18	2,332.00	6,150.00		8,800	.82	.74
19	1,823.00	8,250.00		9,200	1.06	.19
20	1,328.00	8,800.00		9,600	1.06	.56
21	500.00			10,000	.34	.06
22	500.00			10,400	.33	.06
23	500.00			10,800	.32	.06
24	500.00			11,200	.32	.06
25	500.00			11,600	.27	.06
26	500.00			12,000	.27	.06
27	500.00			12,400	.26	.06
28	500.00			12,700	.26	.06

A consideration of this table will show that if the entire bond issue is made the first year of the organization the assessment upon the irrigated land will be $1.87 per acre the first year and will decrease rapidly to the 10th year when it will be 32c. The 11th year will raise the assessment to 96c and it will increase during the 10 years of bond redemption to $1.06 in the 20th year. In the 21st year it will drop to 34c and diminish to the 28th year when all the land is under irrigation, and after that will remain practically constant at 26c per acre.

The desert land will be assessed 22c per acre during the first 10 years, 54c to 56c during the redemption era, and 6c per acre thereafter.

CONSTRUCTION AND BOND ISSUE IN TWO STAGES.

To distribute the assessments for interest and redemption over a longer period and reduce them during the early life of the district, it will be advisable to construct in two stages, the first of which will include only such enlargement and extensions as may reasonably be required for the first ten years after organization.

This will demand the completion of the canal, as far as its first natural outlet at Ten Mile creek, to its full final dimensions and capacity.

The decisions of the state supreme court are to the effect that appropriators of water, after effecting the diversion of the full amount claimed and conveying it to the land to be irrigated have a reasonable time in which to apply it to the purposes intended. See Conant vs. Jones, 32 Pac. 250.

From Ten Mile creek to the 12th mile the canal will be made only 16 feet wide on the bottom; from the 12th to the 20th mile eight feet on the bottom, and from the 20th mile to the end it will be full final size.

The following is an estimate of the cost of this construction.

ESTIMATE No. 9.

1520 cubic yards hard pan in "Big Cut" at 25c	$ 382.50
76,080 cubic yards gravel on side hill at 15c	11,412.50
231,432 cubic yards earth at 10c	15,143.20
103,904 ft. B. M. lumber in flumes at 125	2,647.60
10,155 ft. B. M. lumber in waste gates at $25	253.87
8130 ft. B. M. lumber in head gates	203.25
15,302 ft. B. M. lumber in lateral gates	291.00
3130 ft. B. M. lumber in culverts	101.75
22,350 ft. B. M. lumber in bridges	651.00
169 acres right of way at $15	2,535.00
	$33,624.77
Add 10 per cent for engineering and supervision	3,362.45
Total	$36,989.42

Adding to this the purchase price of $10,000 and $1,010.58 for expenses of organization, we find that the first bond issue must be for the sum of $48,000.

TABLE NO. 11.

Construction by two bond issues, 10 years apart.

	Interest and Administration.	Redemption	Operation	Acres Irrigated	Assessments. Irrigated.	Assessments. Desert.
1	2,650.00		2,500	2,000	1.61	.29
2				2,400	1.33	.29
3				2,800	1.15	.29
4				3,200	1.05	.29
5				3,600	.99	.29
6				4,000	.92	.29
7				4,400	.86	.29
8				4,800	.82	.29
9				5,200	.77	.29
10	2,650.00			5,600	.75	.29
11	4,100.00	2,400.00		6,000	.93	.51
12	3,954.00	2,880.00		6,400	.93	.54
13	3,783.20	3,360.00		6,800	.93	.56
14	3,584.80	3,840.00		7,200	.92	.55
15	3,321.20	4,320.00		7,600	.92	.50
16	4,092.00	4,800.00		8,000	.92	.62
17	3,804.00	5,280.00		8,400	.91	.61
18	3,487.20	5,760.00		8,800	.92	.72
19	2,112.80	7,200.00		9,200	1.03	.72
20	1,660.80	7,680.00		9,600	1.00	.74
21	1,228.00	208.00		10,000	.25	.12
22	1,179.20	720.00		10,400	.27	.13
23	1,123.80	480.00		10,800	.13	.13
24	1,114.40	560.00		11,200	.32	.13
25	1,110.50	640.00		11,600	.32	.14
26	1,073.80	720.00		12,000	.33	.14
27	1,031.00	770.00		12,400	.31	.13
28	954.50	848.00		12,700	.24	....
29	930.50	1,060.00		12,700	.25	....
30	887.20	1,120.00		12,700	.25	....
31	500.00				.26	....

The above table shows that by this method of construction in two stages, the assessments on irrigated land during the first 10 years will be from $1.61 to $2.75 per acre and upon desert land 29c per acre.

The 11th year begins redemption of the first bonds and the interest upon the second issue.

During this period the assessment increases from 50c to $1 per acre on irrigated and from 51c per acre on desert land.

The 21st year begins the redemption of the second bond issue with an assessment of 25c per acre on irrigated land and 12c on desert. The assessment on irrigated land decreases to 25c in the 30th year and drops to 24c in the 31st and remains constant at this figure which provides for operation and administration, all other charges having been liquidated by the redemption of the bonds.

POWER ON THE CALDWELL CANAL.

In the 21st mile of the canal, at a point three miles southwest of the town of Caldwell, it was found necessary to make a drop of 33 5-10 feet in the grade of the canal, in order to avoid the heavy work between this point and the pipe line gulch which was encountered by a continuation of the grade line. This portion of the canal has a capacity of 24 second feet and the power developed by this water measured on the wheel shaft would be 118 horse power. Placing the value of a horse power at $21 per year, as in the case of the Phyllis canal, the revenue possible from this source would be $2,310. The cost of operation for six months after the irrigation season, would be probably less than $1500 as estimated for the irrigation season, but it is readily seen that it will approach very close to the estimated income from this source.

Unless some use could be found for the power during the irrigation season alone, it can scarcely be considered of any value.

WATER RIGHT OF THE CALDWELL CANAL.

The discussion of the value of an undivided water right on the Phyllis canal applies with equal force to the Caldwell canal.

The fact that a canal possesses an old water right location for a large amount of water, of which only a fraction has been diverted, is of no value against a subsequent location which has been perfected by the diversion and use of the water.

"All ditches, canals or other works heretofore made, constructed, or provided, by means of which the waters of any stream have been diverted and applied to any beneficial use must be taken to have secured the right to the waters claimed to the extent of the quantity which said works are capable of conducting and not exceeding the quantity claimed."

See Sec. 10. "An act providing for the appropriation and distribution of water," etc. Approved Feb. 25th, 1899.

WATER SUPPLY.

Enough water run to waste in the Boise at the lowest stage of the present season to have supplied both the canon at Caldwell canals, when enlarged to their full capacities.

It is true that this season has been better than the average in the low water flow of the river, but it is also true that the increase of the seepage waters of the river has contributed largely to the increase in the low water stage of the river and promises to contribute still more largely as the irrigation of the upper valley is extended. The Phyllis and Caldwell canals, from their location well down the valley, will gain largely from this source.

While it is impossible from the short period covered by the observation of this supply to predict with any certainty the extent to which it will eventually contribute to the low water stage of the lower Boise, it may be looked upon as its most important auxiliary.

The seepage or invisible return waters of the Boise were determined by the United States geological survey in 1898 and 1899 by measurements of the river above the canals, below all canals of all the canals taken out and of all the visible waters returning to the stream.

In 1898 the invisible return waters between the canon above Boise city and the canon at Caldwell amounted to a flow of 760 cubic feet per second and in 1899, they aggregated 396 cubic feet per second, an increase of 42 per cent in a single year.

In 1898 the total amount taken out by canals on September 1 was 2,160 second feet, the seepage waters being 23 6-10 per cent of the entire amount diverted by canals. In 1899 the total amount taken out by canals on September 18 was 2,257 second feet, the seepage waters constituting 30 per cent of the entire amount diverted by canals.

The increase in the water diverted by canals during the past year was less than 6 per cent, while the increase in the seepage or return waters was 42 per cent in the same period. It must not be assumed that this rate of increase can be maintained, as there will come a time when it will reach its maximum and remain constant, and what it will be at that time there is no data for computing.

While the two canals, and especially the Caldwell canal, are in a position to take full advantage of this increase there may come a time when it will be necessary for them to join the rest of the valley in a system of water storage, but that question may safely be left to the future, and may possibly never arise.

IMPORTANCE OF DISTRIBUTING WATER BY MEASUREMENT.

While all the tables of assessments under the district organization have been made on the acreage basis, because that is the common way of considering irrigation charges, it is absolutely essential to the success of the districts, that the assessments for operation of the canal be based upon the volume of water furnished rather than by the acres irrigated. The first method encourages economy and the second puts a premium upon waste. It will be readily seen by an inspection of the tables how rapidly the cost per acre of irrigation decreases as the acreage irrigated increases. The cost of operating is a fixed quantity and the greater the area of land it can be distributed over the smaller is the charge per acre. An absolutely fair system of distribution which measures every acre foot of water delivered to each consumer and charges him for that much and no more will add immensely to the value of water, and correspondingly decrease its cost.

Many cities, within the past 10 years, have found themselves confronted with a shortage of water. All the cheap sources of supply had been fully utilized and any further increase involved the construction of long aqueducts and great reservoirs, with an increased charge for all the water furnished. As a temporary expedient some have resorted to the use of meters and charge only for the volume furnished. As a result, these cities find they have an abundant supply of water, and the people find that their water bills are less than ever before.

The meters have taken the place of aqueducts and reservoirs, by shutting off the waste that had been supplying the sewers at the expense of the water pipes.

SINGLE VERSUS COMBINED DISTRICTS.

All the estimates in this report have been made upon the supposition that two independent districts would be formed, one under each canal, as that is the only course that commends itself.

There are large problems to be solved under either district, and the residents of each, will find that their best efforts will be needed to wisely administer the affairs of a single comparatively small district under which all the interests are homogeneous.

A combination of the districts will simply multiply the difficulties without giving compensating advantages.

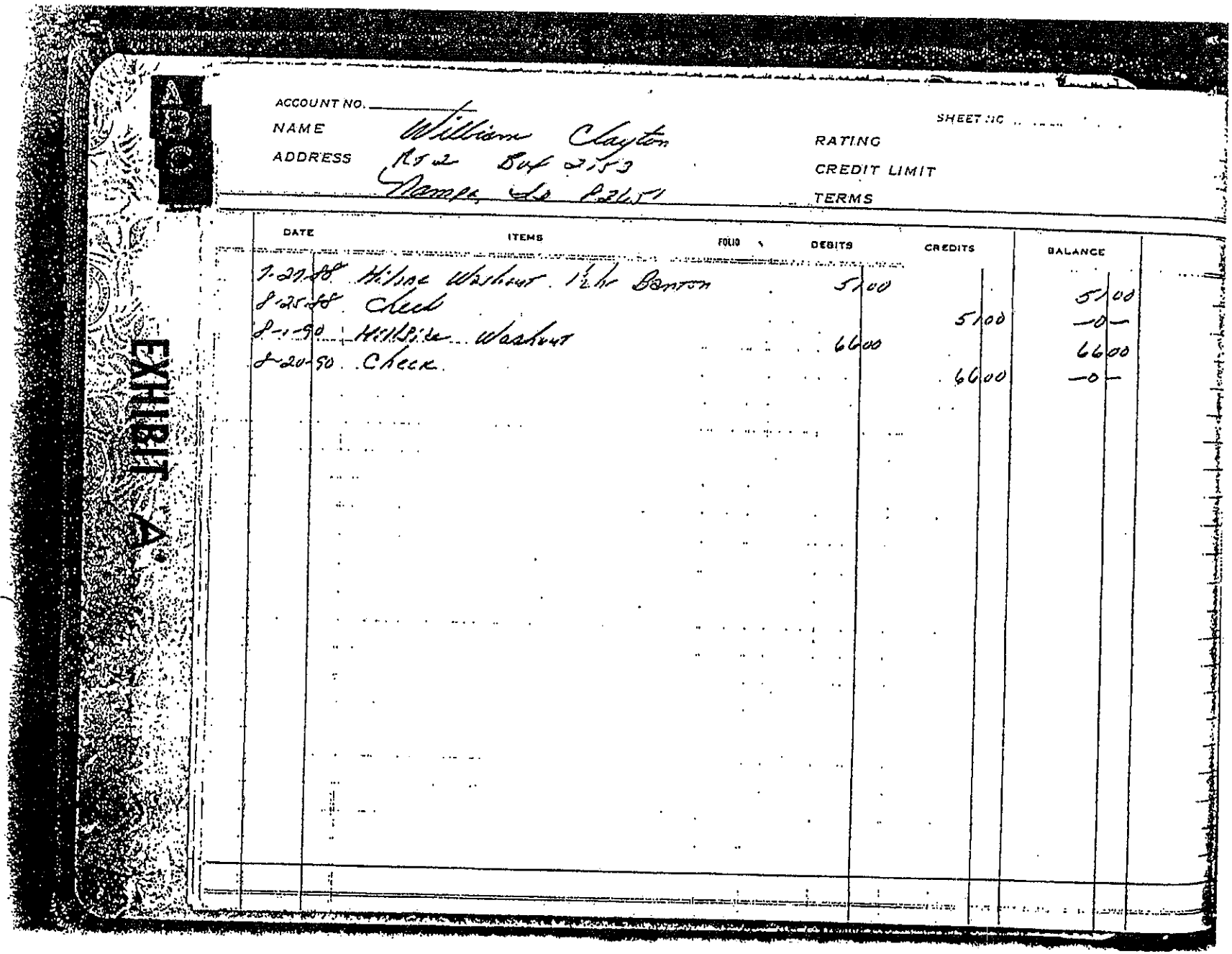
The construction of the two canals is absolutely essential. If the whole area embraced in the two districts could be irrigated from the Caldwell canal, there would then be some reason in having but a single district. The point of diversion is more favorable, as being lower down the river and more accessible to the surface waters; the construction is cheaper on account of the difference in the length and general character of the side hill work, which is all in favor of the Caldwell canal; and the purchase price is very much less. The comparative merits of the two points of diversion is shown by the fact that the estimates give the first cost of the completed canal, per acre covered, by the Caldwell as only 8 per cent of that covered by the Phyllis.

It being then from motives of economy advisable to cover as great an area as possible from the Caldwell canal and to make the Phyllis a point of diversion only for the tract lying above the Caldwell, thus making the two systems entirely distinct and independent, this division should be preserved in the interest of both the districts.

The district law says that the petitioners for the organization of a district must have evidence of title "in lands susceptible of one mode of irrigation from a common source and by the same system of works." From the facts set forth in this report it would be the worst possible policy, from any standpoint, to abandon the Caldwell canal and irrigate the entire tract beneath two canals from the Phyllis alone. The tracts must be served by two distinct and unconnected systems of works and the organization of one single district irrigated by two distinct systems would be in plain violation of the letter, as well as the spirit of the law, from which the organization must take its life. Respectfully submitted.

A. J. WILET.

PID000799



ACCOUNT NO. _____

NAME William Clayton

ADDRESS Rt 2 Box 2153
Nampa, Id 83651

SHEET NO. _____

RATING

CREDIT LIMIT

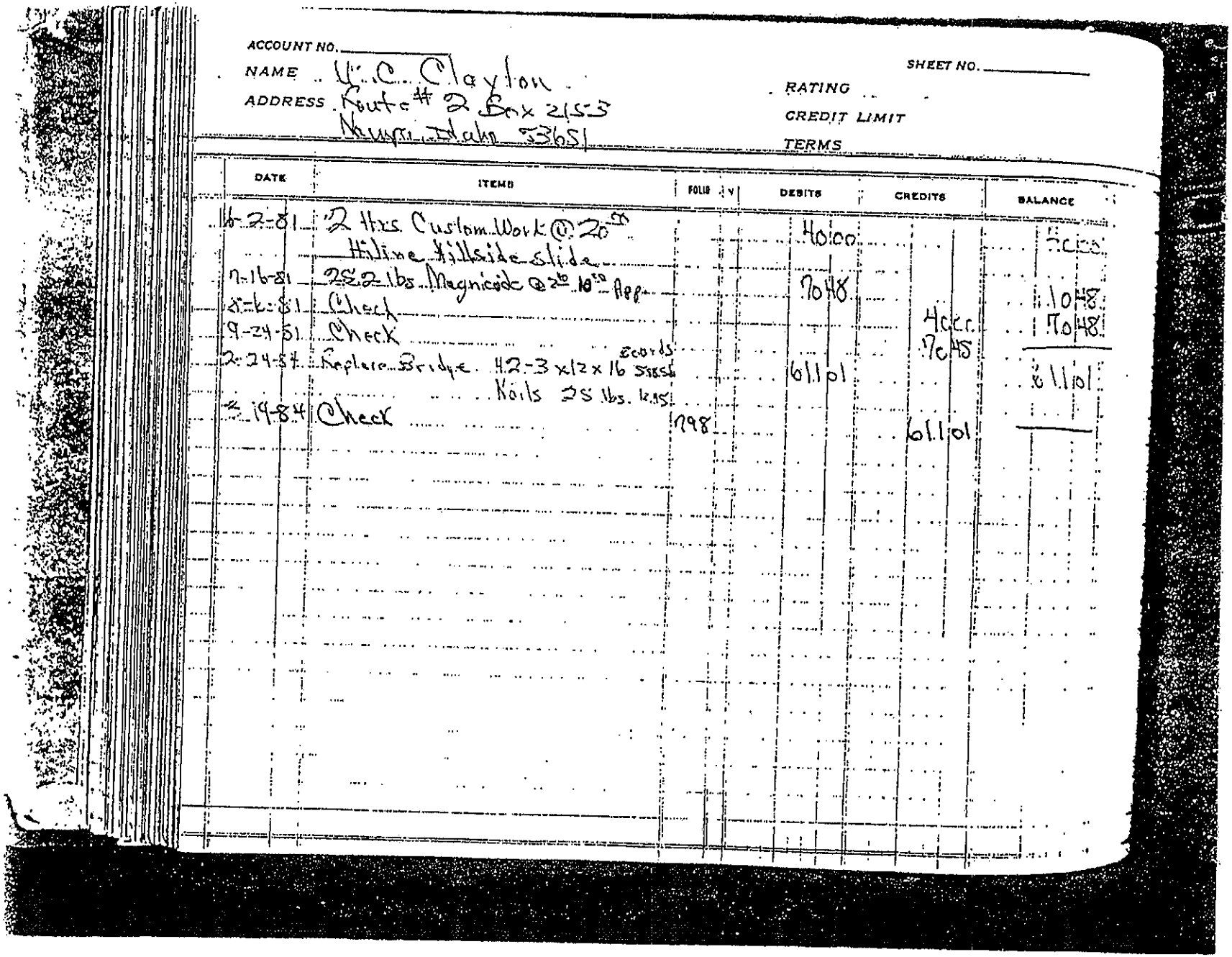
TERMS

DATE	ITEMS	FOLIO	DEBITS	CREDITS	BALANCE
7-27-88	Hilsne Washout 1½ hr Banton		51.00		51.00
8-25-88	Check			51.00	-0-
8-1-90	Hillside Washout		66.00		66.00
8-20-90	Check			66.00	-0-

EXHIBIT A

PID000800

PID045703



ACCOUNT NO. _____

NAME U. C. Clayton

ADDRESS Route # 2 Box 2153
Nampa, Idaho 53651

SHEET NO. _____

RATING

CREDIT LIMIT

TERMS

DATE	ITEMS	FOLIO	V	DEBITS	CREDITS	BALANCE
6-2-81	2 Hrs Custom Work @ 20.00 Hiline Hillside slide			40.00		40.00
7-16-81	25.2 lbs Magnicide @ 2.10 10.00 App.			70.48		10.48
8-6-81	Check				40.00	70.48
9-24-81	Check				70.48	
2-24-84	Replace Bridge 42-3 x 12 x 16 Boards 5.85 Nails 25 lbs. 12.45			61.01		61.01
3-19-84	Check	798			61.01	

PID000801

PID045704

PLEASE BE ADVISED – THE USE OF STERILANTS ON CANAL BANKS IS PROHIBITED

REMINDERS: Order your water on and off with a minimum of 24 hours notice.

Water will NOT BE DELIVERED to property which has ANY PAST DUE BALANCES owing. All assessments must be paid before water will be delivered!!!

If you buy or sell property, please advise the office at 3700 Lake Avenue, 459-3617.

Owners of livestock are responsible for any damage done to any irrigation ditches.

Persons who tamper with headgates or damage any water control devise will be held responsible for their actions.

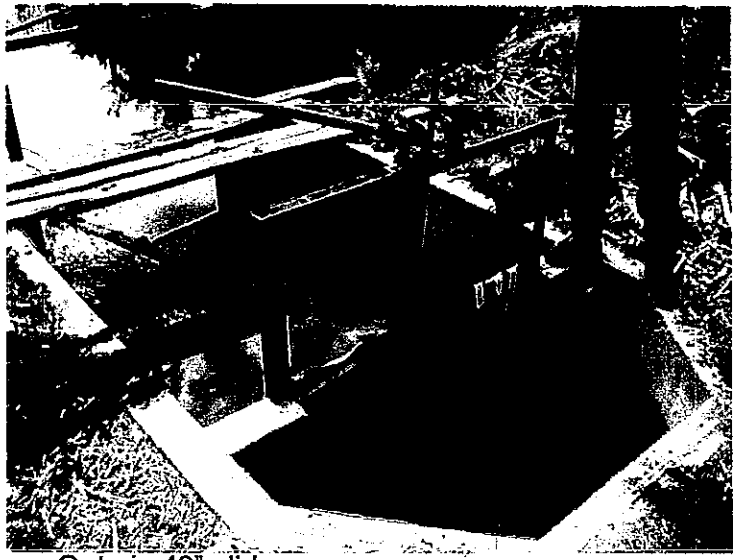
Water users of any ditch below Pioneer's point of delivery are responsible for the maintenance of their ditch – also for any flood damage caused by not properly maintaining their ditch.

Pioneer Irrigation Dist. will not be responsible for machinery, tools, syphon tubes, or whatever left on their easement on canals and drain ditches. The responsible parties will be billed for the removal of such, and also for clearing junk and debris dumped in the drains and on the easement.

Thank you,
PIONEER IRRIGATION DISTRICT

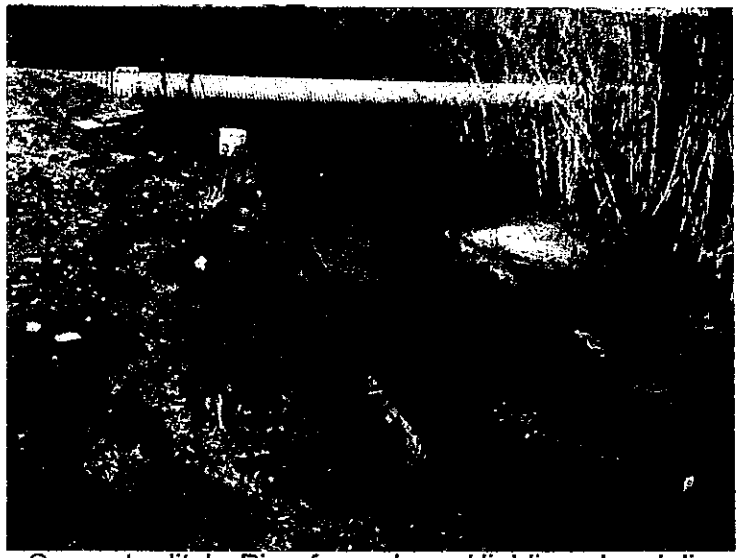
PID000802

PID045705



Gate is 48" slide

Highline gate in background



Concrete ditch. Pipe from above Highline also delivers.

GPS Point: 001
Gate: ___
Owner: Bill Clayton

Free Delivery?: Yes
Account: ___
Acres: ___

Description: piped across access road to concrete ditch running west.

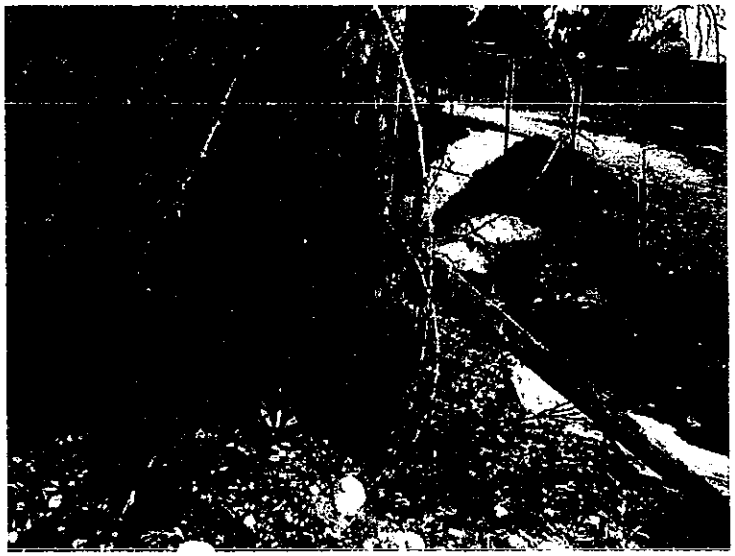
Small pump to Albert's home.

GPS Point: 002
Gate: ___
Owner: Bill Clayton

Free Delivery?: Yes
Account: ___
Acres: ___

Description: small pump for yard irrigation.

Pipe across Highline to Clayton

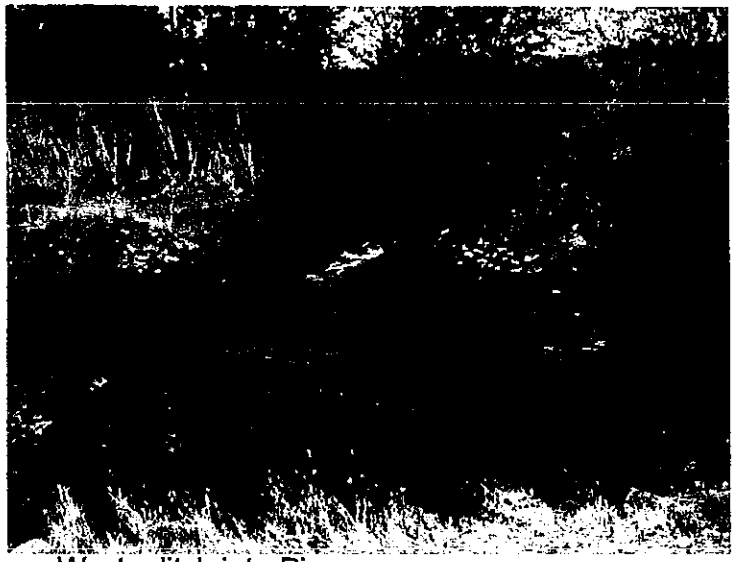


Delivers to ditch

GPS Point: 003
Gate: ___
Owner: Bill Clayton

Free Delivery?: N/A
Account: N/A
Acres: ___

Description: pipe across Highline delivers to Clayton. Not Pioneer water.

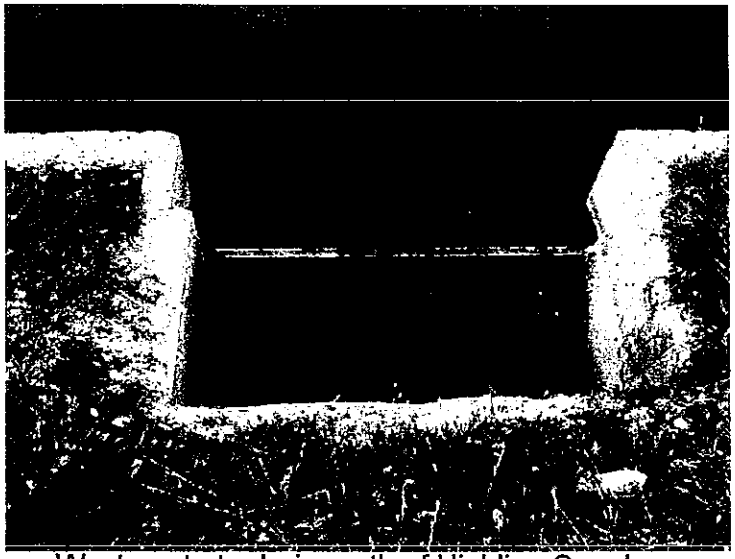


Waste ditch into Pioneer.

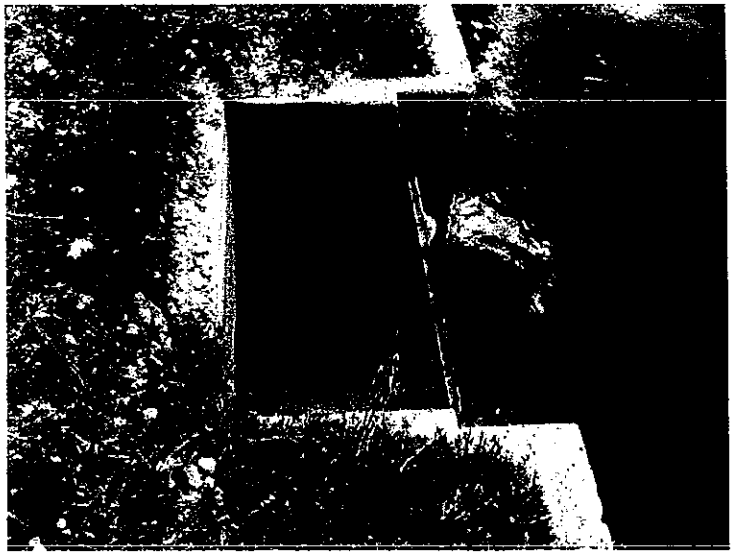
GPS Point: 004
Gate: ___
Owner: _____

Free Delivery?: N/A
Account: ___
Acres: ___

Description: Waste/Tail water delivered directly into Highline. May source from Lemp Canal.



Waste gate to drain north of Highline Canal.



Facing upstream to waste gate from near Clayton's Driveway

Discharge to drain/slough.

GPS Point: 005
Gate: ___
Owner: ___

Free Delivery?: N/A
Account: N/A
Acres: ___

Description: Waste gate to drain just north of Phyllis. Normally shut tight.

Clayton's driveway bridge facing down Highline

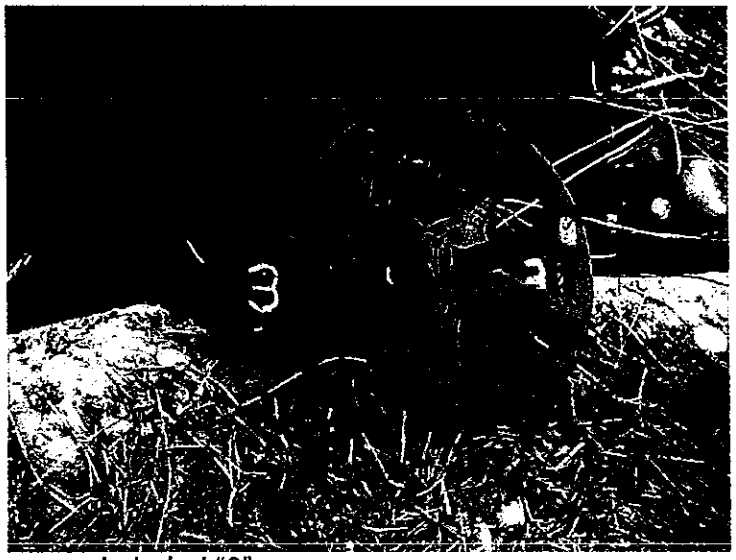
Discharge approximately 20 cfs in photo. At 40 cfs, level is high enough to force water into silver sleeve pipe.

GPS Point: 006
Gate: ___
Owner: Bill Clayton

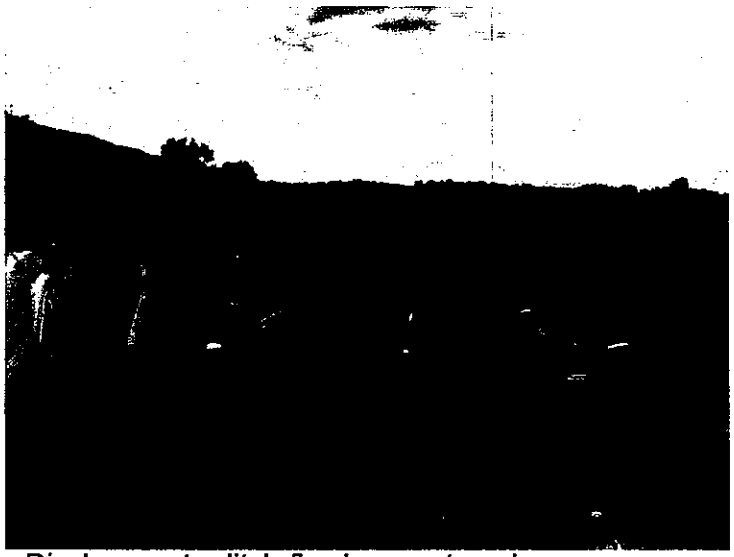
Free Delivery?: N/A
Account: ___
Acres: ___

Description: Clayton's Bridge.

Headgate thought to be "1A"



Labeled "3"

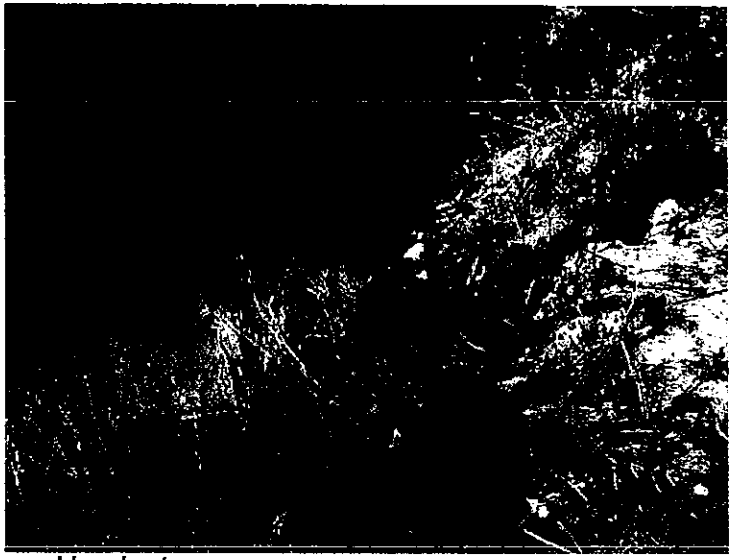


Discharges to ditch flowing westward

GPS Point: 007
Gate: 1A (?)
Owner: Clayton

Free Delivery?: Yes
Account: ___
Acres: ___

Description: Headgate 1A (?). 8-inch



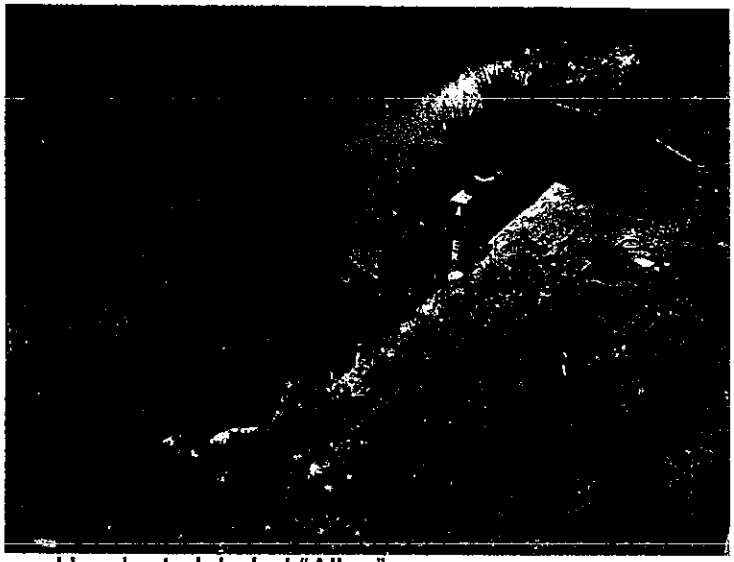
Headgate

Delivers to field between road & drain.

GPS Point: 008
Gate: 2
Owner: Clayton

Free Delivery?: Yes
Account: ___
Acres: ___

Description: Gate 2 (?). Piped across rd to irrigate to drain. 10-inch.



Headgate labeled "Allen"

Delivers to north.

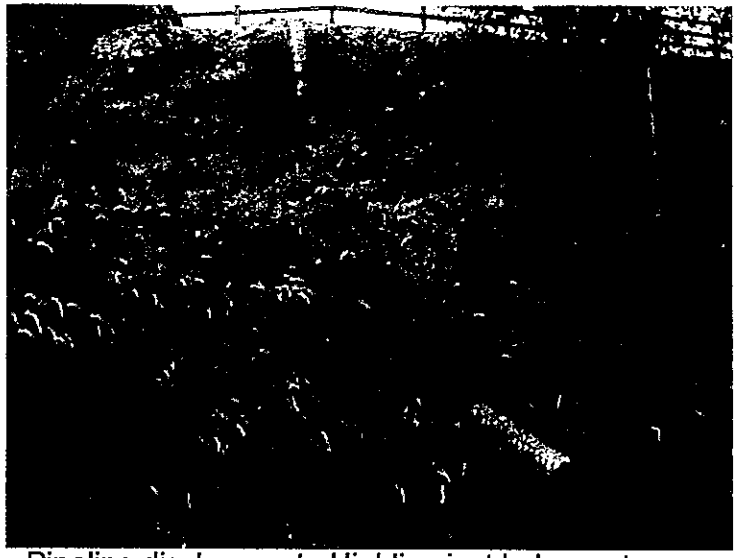
GPS Point: 009
Gate: 3
Owner: Allen

Free Delivery?: Yes
Account: 9504
Acres: 126.5

Description: Gate 3 (?). Piped across rd.

Headgate

Delivers to north. Faded label on right side.



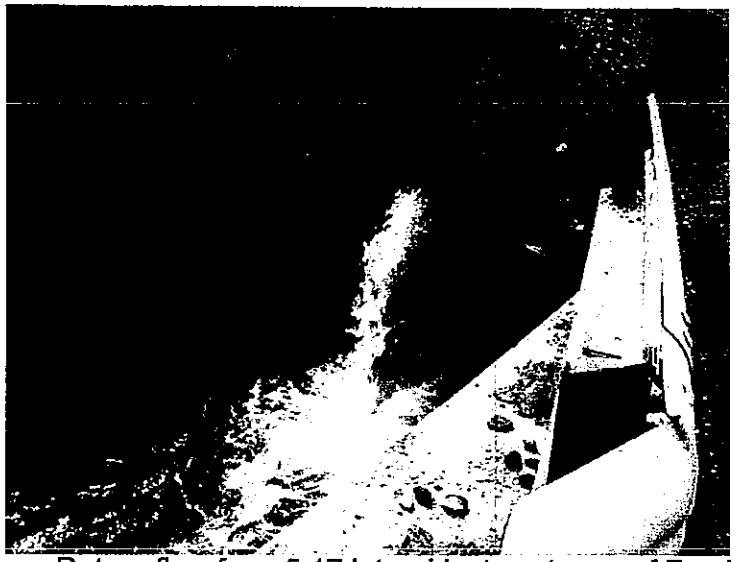
Pipeline discharges to Highline just below gate.

Place of use north of Highline.

GPS Point: 010
Gate: 4
Owner: Bryce

Free Delivery?: Yes
Account: 1116-4
Acres: 126.5

Description: Gate 4. Piped across rd.
15-inch

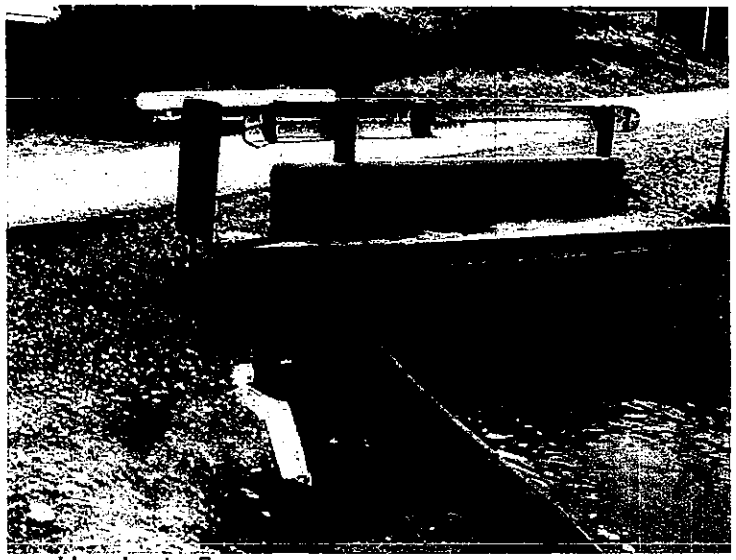


Return flow from 5.17 lateral just upstream of Franklin Rd bridge.

GPS Point: 011
Gate: N/A
Owner: Pioneer I.D.

Free Delivery?: N/A
Account:
Acres:

Description: Tailwater from 5.17 lateral.



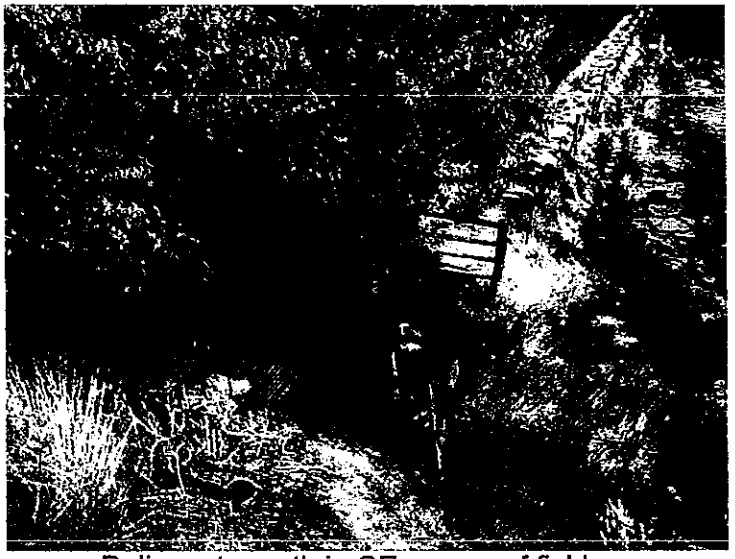
Headgate 5

GPS Point: 012
Gate: 5
Owner: Mulchay

Free Delivery?: Yes
Account: 9505
Acres: 126.5

Description: Headgate 5.
10-inch

Headgate labeled "6"



Delivers to north in SE corner of field.

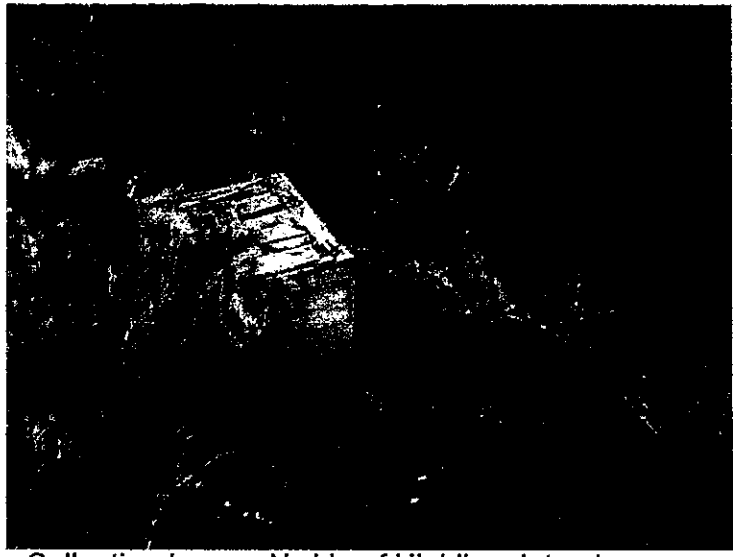
GPS Point: 013
Gate: 6
Owner: Larson & Whiffin

Free Delivery?: Yes
Account: 9506 & 9507
Acres: 40 + 86.5 = 126.5

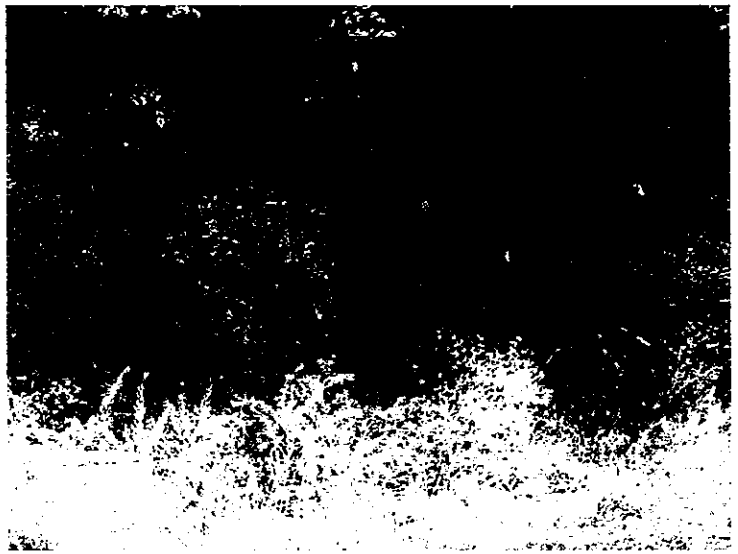
Description: Gate 6. Piped to north, SE corner of field.

Headgate. Orange tarp covering breather vent.

Note 2nd headgate in foreground (abdnd?).



Collection box on N side of Highline, into pipe.



Pipeline.

GPS Point: 014
Gate: 7
Owner: Rosdahl, Sylvis, Whiffin, Bishop

Free Delivery?: Yes
Account: 910, 9508, 9509
Acres: 26+126.5+253 = 405.5

Description: Piped across rd. 12-inch. Estimate several cfs.

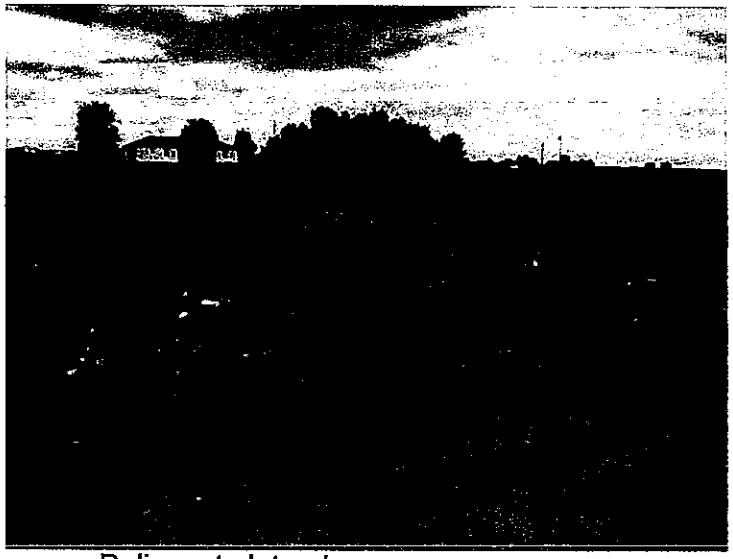
Return flow is under tree on right

GPS Point: 015
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: Last return flow on 5.17 lateral

Headgate labeled "8"

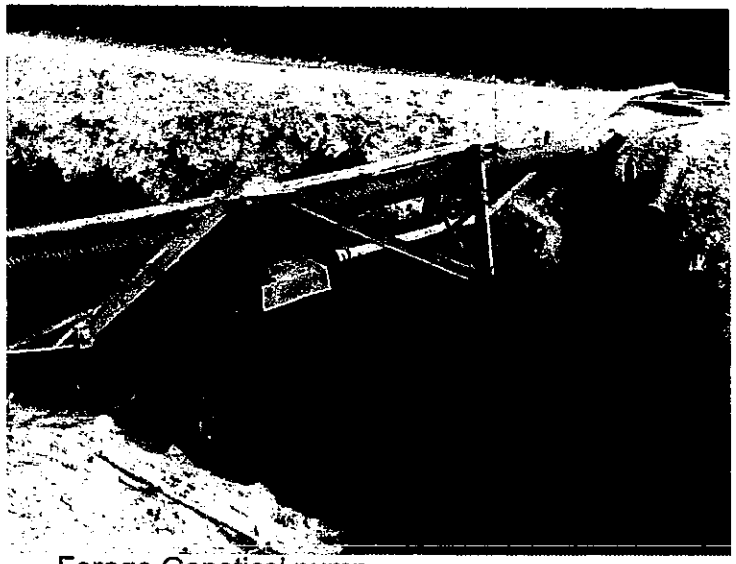


Delivers to lateral

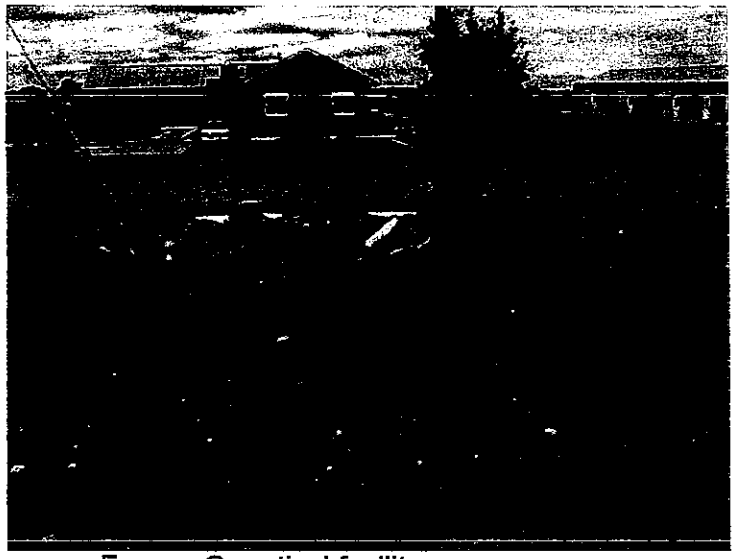
GPS Point: 017
Gate: 8
Owner: Hicks, Seamons, Upmoor

Free Delivery?: Yes
Account: 914, 9510 & 9511
Acres: 37.38+14.62+150

Description: Gate 8 delivers to a lateral running NW.
15-inch



Forage Genetics' pump



Forage Genetics' facility

GPS Point: 018
Gate: Forage Genetics Pump
Owner: Forage Genetics

Free Delivery?: Yes
Account: ___
Acres: ___

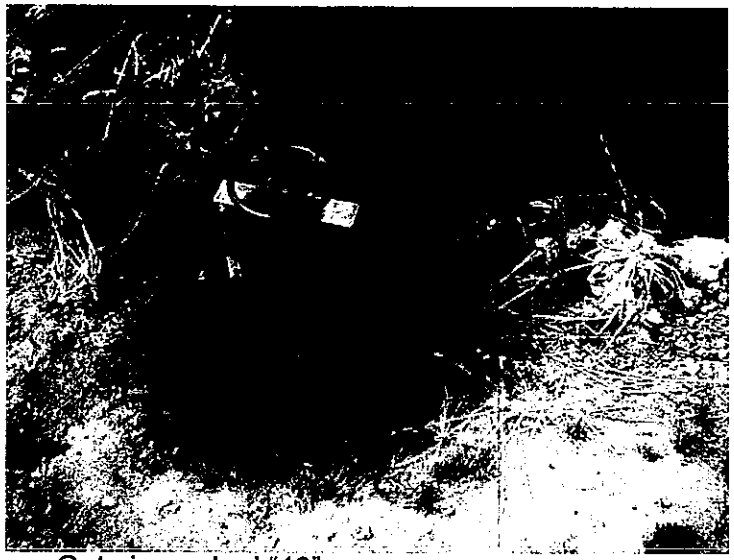
Description: Parma pump diverts directly from Highline Canal.

Return flow from 5.3 lateral

GPS Point: 019
Gate:
Owner:

Free Delivery?: N/A
Account:
Acres:

Description: Return flow from 5.3 lateral.



Gate is marked "12"

Facing upstream

GPS Point: 020
Gate: Gate 9 (& 10 & 11?)
Owner: Guinn

Free Delivery?: No
Account: 976
Acres: 27.2

Description: Gate 9.

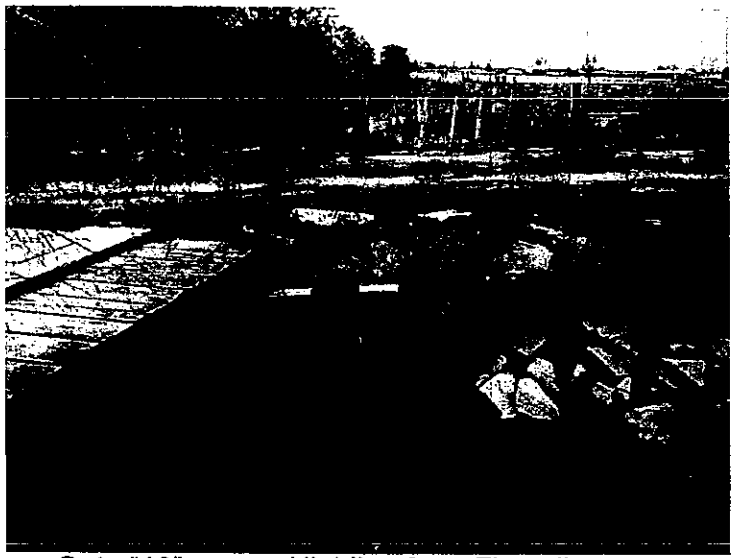
Guinn Pump House

Fivemile Feeder discharging into Highline Canal upstream of flume.

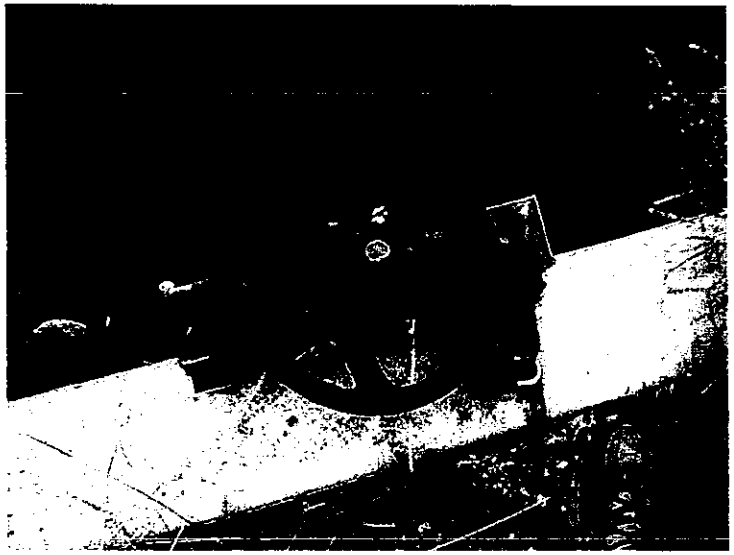
GPS Point: 021
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: Guinn Pump



Gate "10" across Highline from Fivemile Feeder inflow.

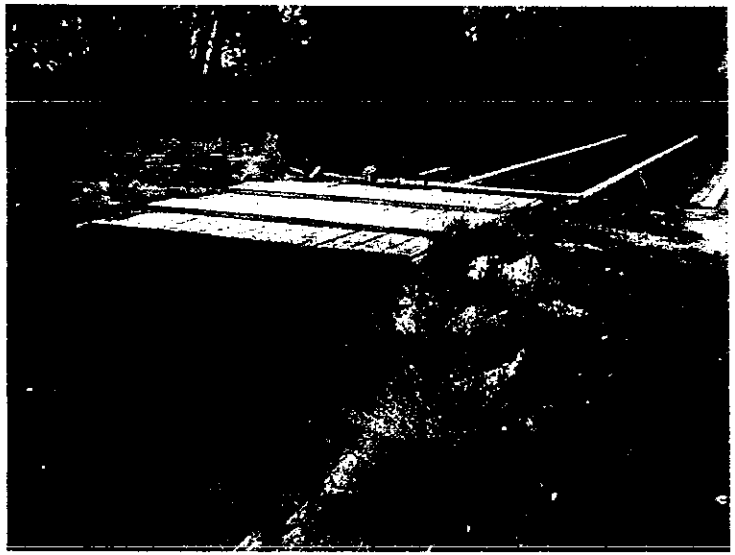


Fivemile Feeder discharging into Highline Canal upstream of flume.

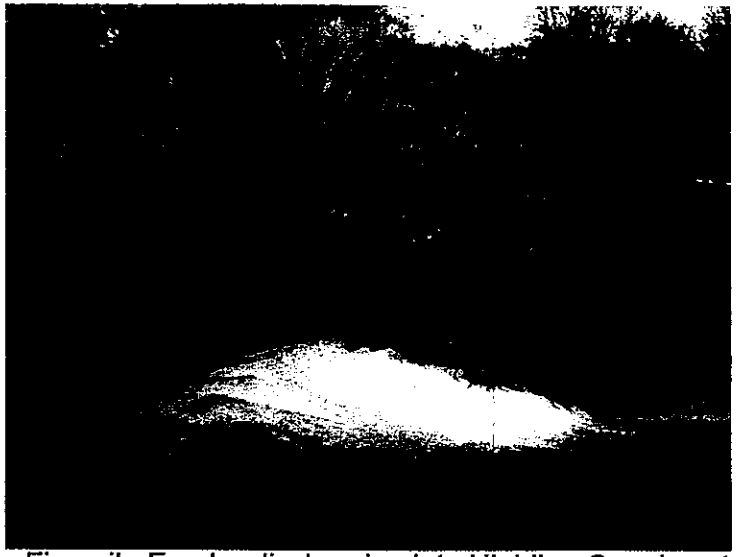
GPS Point: 023
Gate: 10
Owner: ?

Free Delivery?: ?
Account: ?
Acres: ?

Description:



Highline canal crosses Fivemile in right flume. Left is discharge to Fivemile.



Fivemile Feeder discharging into Highline Canal upstream of flume.

GPS Point: 024
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: Highline Canal at Fivemile Creek

Gate is marked "11"

Gate is to the left delivering water to field on right

GPS Point: 060
Gate: 11
Owner:

Free Delivery?:
Account:
Acres:

Description:

Field tail water drain (cmp) and an apparent drain tile (black pipe)

GPS Point: 059
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: Tail water drains

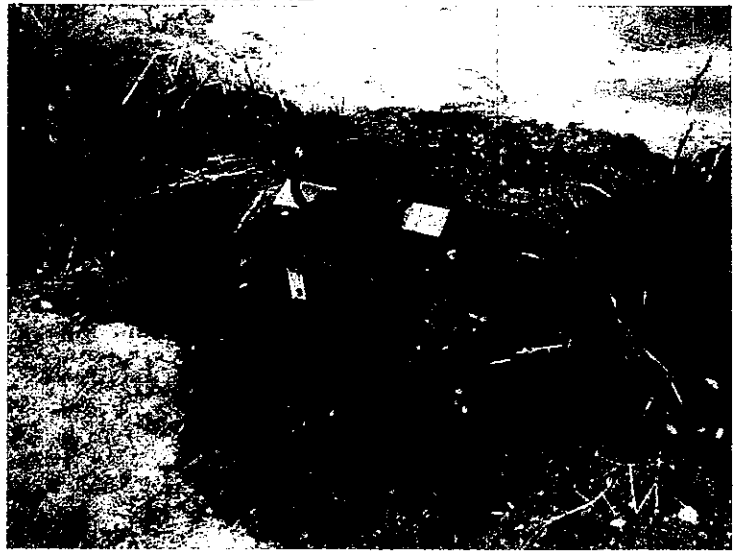
Concrete box on left receives water from a buried pipe and discharges across Highline Canal and/or into Canal through CMP in foreground.

GPS Point: 016 (Nov 17, 2010)
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: Tail / waste water near Forage Genetics

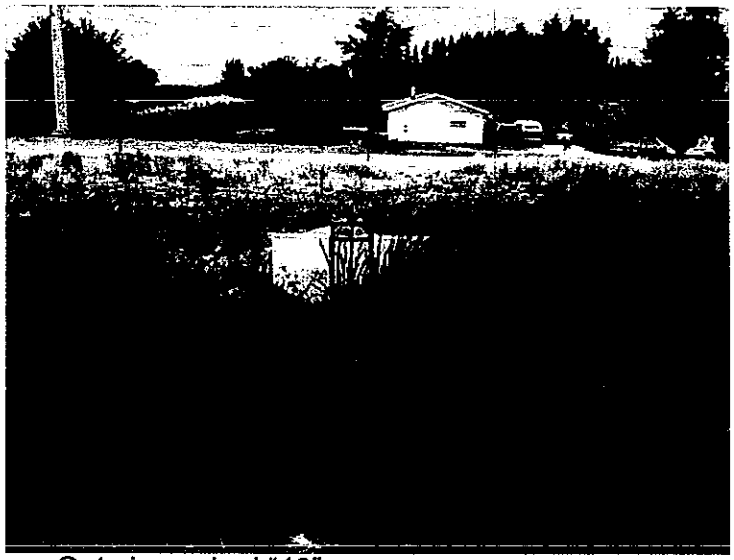
Gate is marked "12"



GPS Point: 025
Gate: 12
Owner: Link, Nampa Tractor Salvage

Free Delivery?: No
Account: 1003, 1004
Acres: 2.50 + 6.75 = 9.25

Description: Gate 12 (thought to be #11A in field notes)

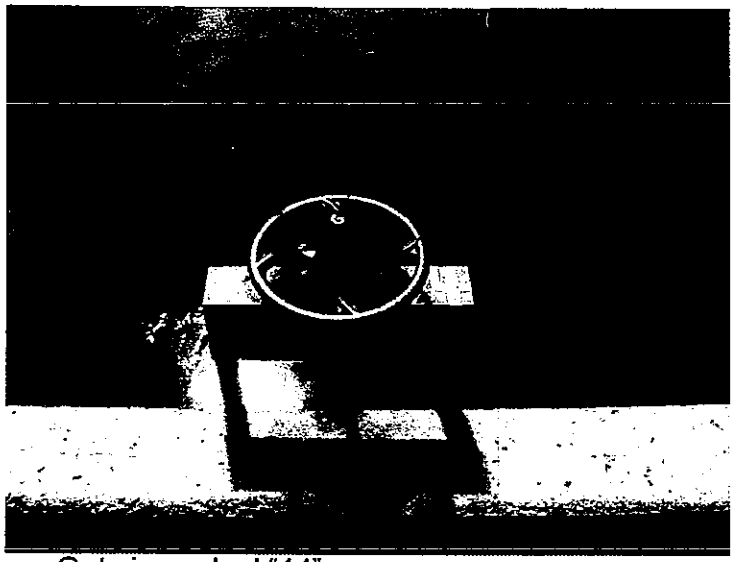


Gate is marked "13"

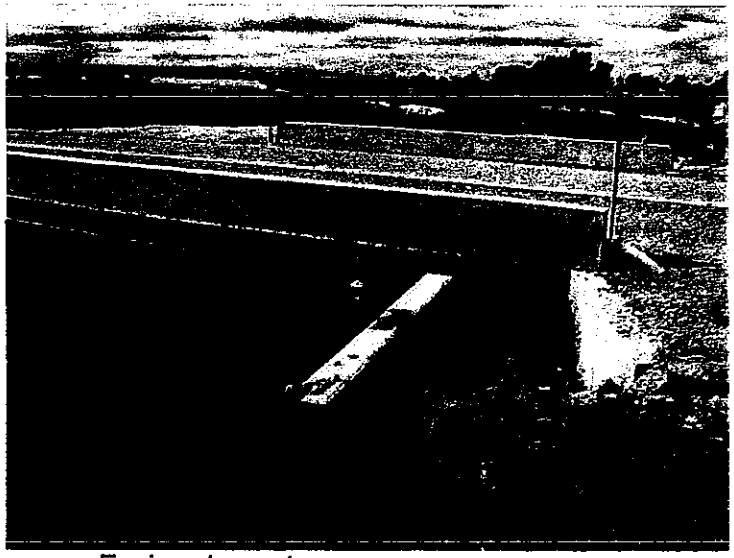
GPS Point: 026
Gate: 13
Owner: Yamamoto & Porter

Free Delivery?: No & Yes
Account: 902 & 9512
Acres: 1.7 + 22 = 23.7

Description: Gate 13 (thought to be #12 in field notes)

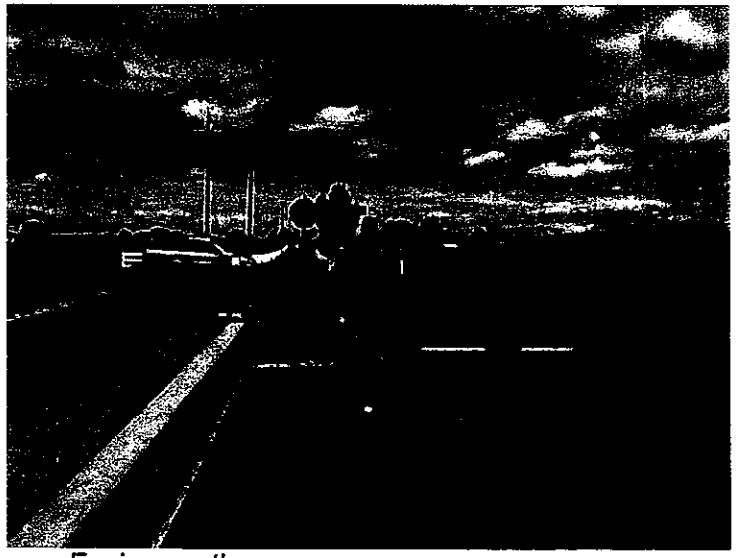


Gate is marked "14"



Facing downstream

Corner of Hwy 20-26 & Knot Ln

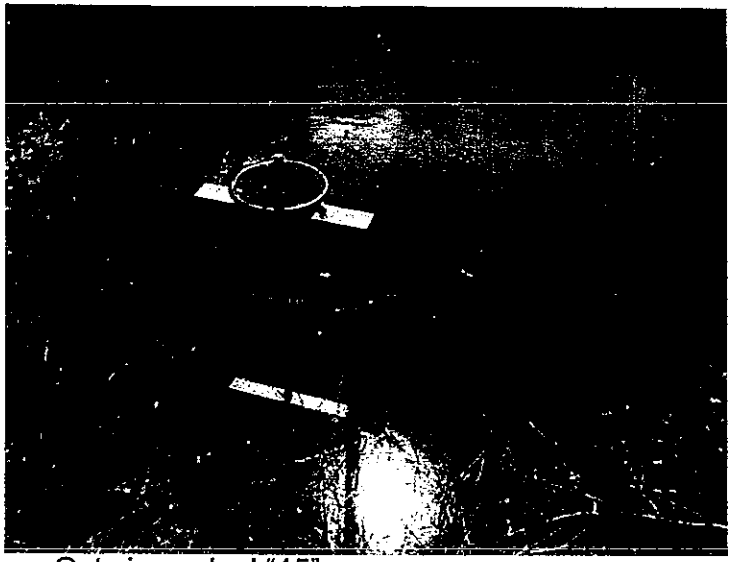


Facing north

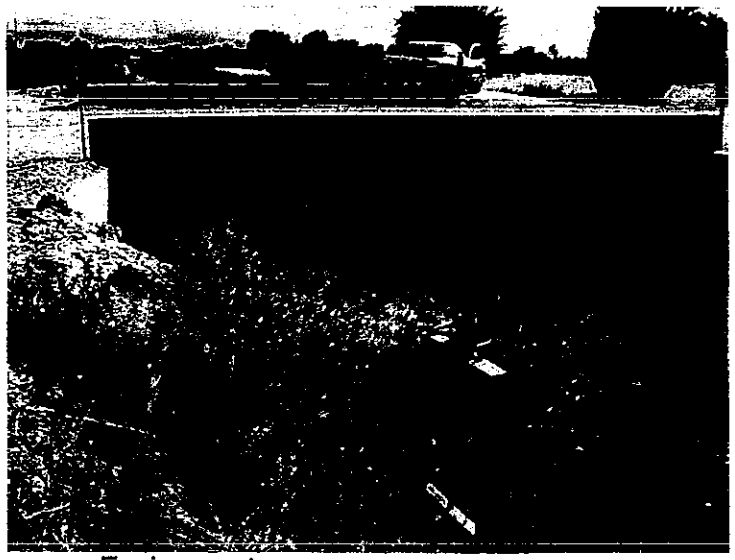
GPS Point: 027
Gate: 14
Owner: Uehlin

Free Delivery?: Yes
Account: 1393
Acres: 74.5

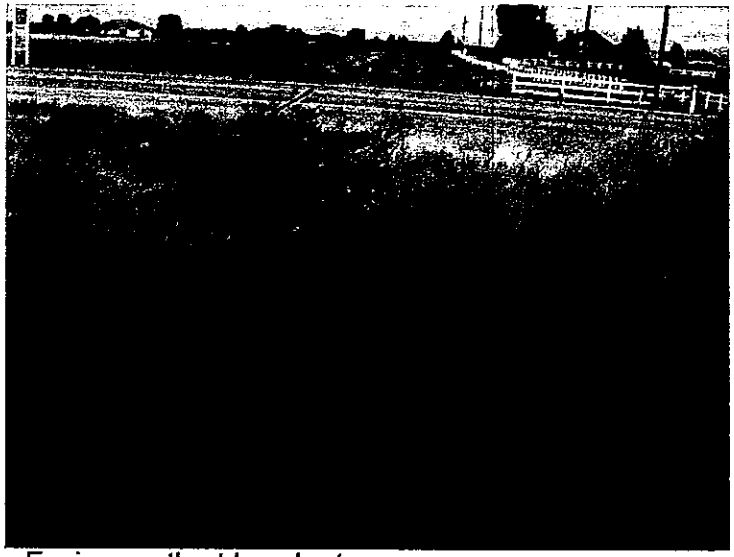
Description: Gate 14 (thought to be #13 in field notes)



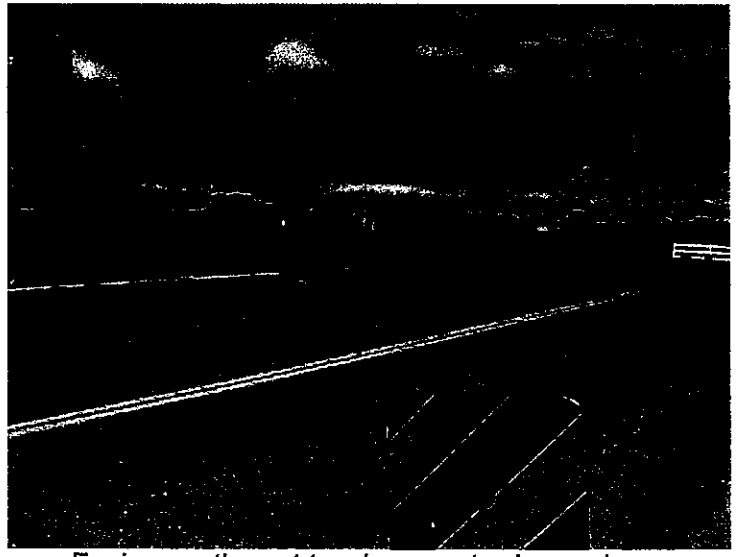
Gate is marked "15"



Facing upstream



Facing north at headgate



Facing northwest to where water is used

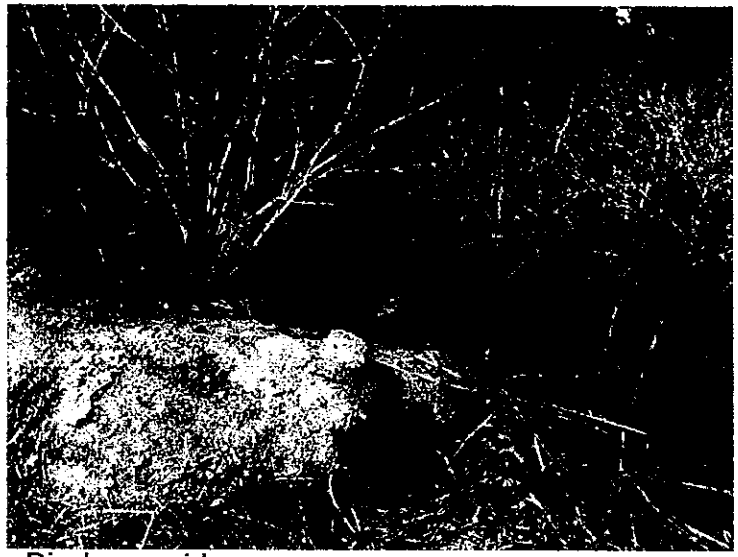
GPS Point: 028
Gate: 15
Owner:

Free Delivery?:
Account:
Acres:

Description: Gate 15 (thought to be #14 in field notes)
15-inch

Gate is not marked

Facing upstream



Discharge side

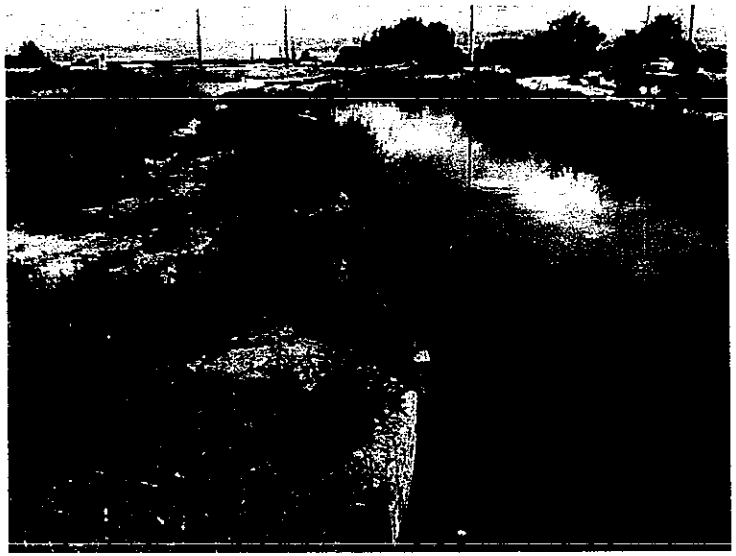
Facing northwest to where water is used

GPS Point: 029
Gate: 16
Owner:

Free Delivery?:
Account:
Acres:

Description: Gate 16 (thought to be #15 in field notes)
12-inch

Gate is marked "17"



Facing upstream

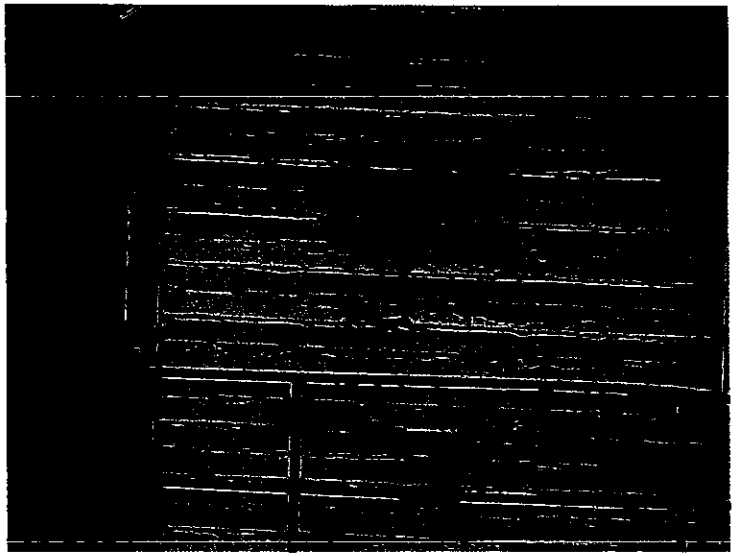
Discharge side. Gates 16 (just upstream) and 17 deliver to same "Franklin" Ditch.

GPS Point: 030
Gate: 17
Owner:

Free Delivery?:
Account:
Acres:

Description: Gate 17 (thought to be #15 in field notes)
12-inch

Grove Pump



GPS Point: 031
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: Grove Pump

Gate 16

GPS Point: 032
Gate: 16
Owner:

Free Delivery?: Partial
Account:
Acres:

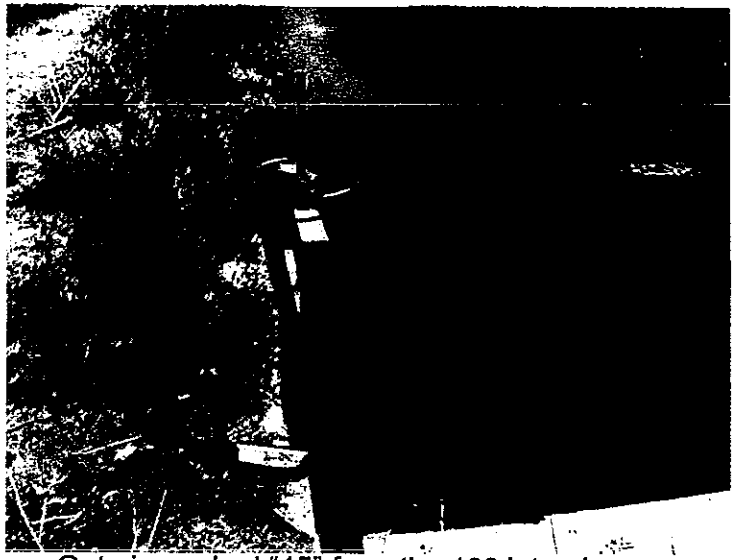
Description: Gate 16 from field notes. 12- to 15-inch gate size.

Headgate to Weymouth "100" Lateral

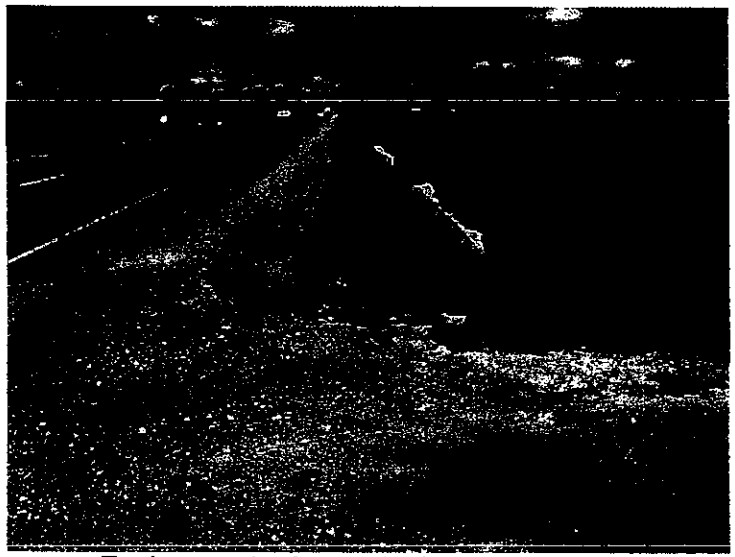
GPS Point: 033
Gate: Weymouth 100 Lateral
Owner: Pioneer I.D.

Free Delivery?: Some
Account:
Acres:

Description: 100 lateral



Gate is marked "15" from the 100 lateral



Facing north along Middleton Rd

GPS Point: 034
Gate: 14 or 15 from 100 Lateral
Owner:

Free Delivery?:
Account:
Acres:

Description: Gate 14 or 15 (15 barely visible on headgate)
8-inch

Small lateral east of Mason Creek

Facing downstream along Mason Creek

Ditch sources from Mason Creek from a headgate approximately 0.15 miles upstream from road. Point of diversion is represented by these water rights:

63-2430: C Harshman, licensed, 4/24/1930 priority date, 0.46 cfs for 23 acres. This licensed right is not claimed, but the place of use is within that claimed by Mason Creek Ditch Co.

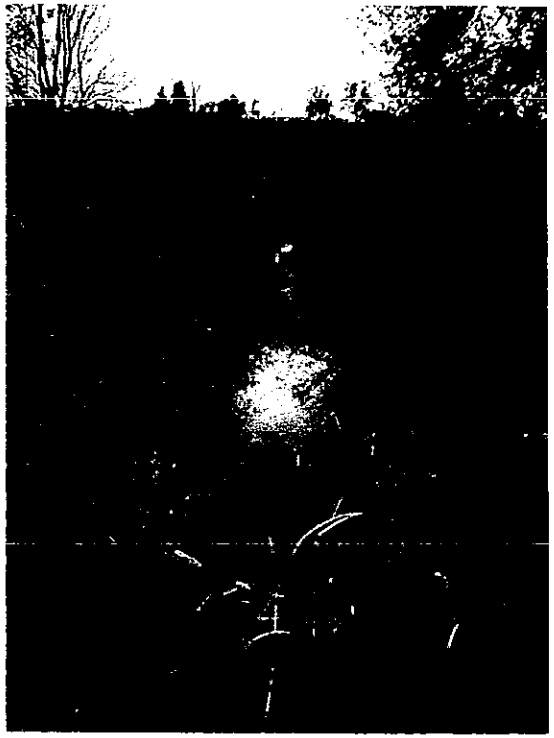
63-32580: Mason Creek Ditch Co, 17 cfs under two diversion points (the other being the ditch identified as "Noble Drain" about 1/10th mile below this photo point).

GPS Point: 035
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description:

Facing downstream.

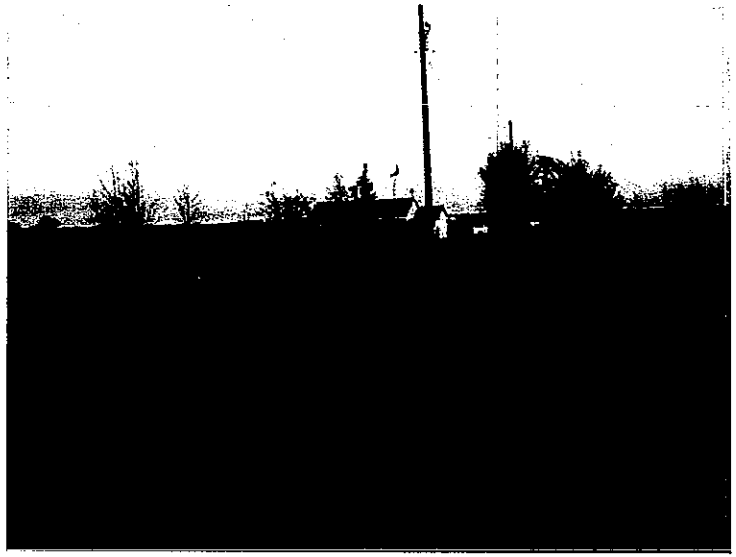


Facing upstream from road crossing.

GPS Point: 036
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: Solomon Drain at Marble Front Rd.



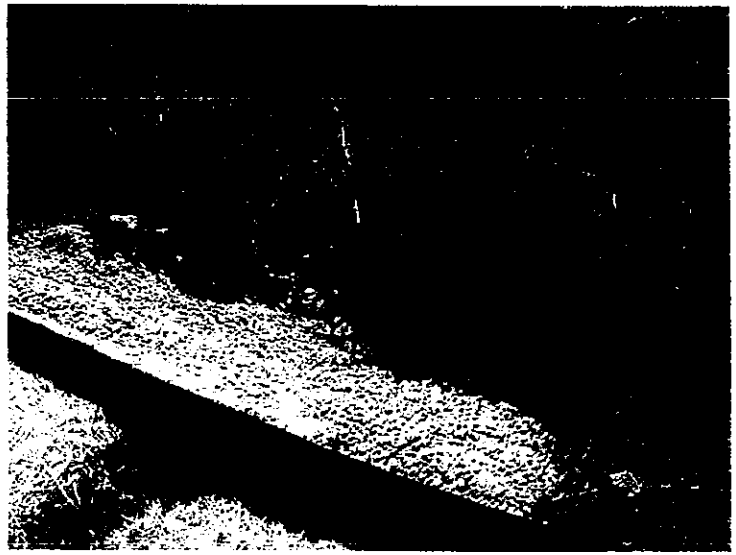
Access to turnouts require access past this home.

GPS Point: 037
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: To Payner. Turnouts past home not assessed

Sewer lift station area



Discharge location

GPS Point: 037a (digitzed)
Gate:
Owner:

Free Delivery?:
Account:
Acres:

Description: Sewer Lift Station Area

Upstream – lateral on right, waste way on left

Downstream – concrete lateral, siphon tubes

GPS Point: 038
Gate: n/a
Owner:

Free Delivery?:
Account:
Acres:

Description: Canyon Hill Lateral at Lincoln St.

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EXHIBIT 1
NAME: IDWR
DATE: 09.17.10
QnA Court Reporting, LLC

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Revised 02/16/00

CLAIM INVESTIGATION HANDBOOK

CHAPTER 1

INTRODUCTION

The Idaho Department of Water Resources plays a key role in the Snake River Basin Adjudication. IDWR receives all claims for state law based water rights and investigates them before they are considered by the SRBA District Court. IDWR investigates them to determine how it believes each water right should be described, and then submits its recommendations to the SRBA District Court in the form of a Director's Report. Experience in the Test Basins shows that over 90% of the time IDWR's recommendation to the SRBA District Court is accepted and decreed without objection. Even when objections are filed conversations with IDWR often result in agreements between the claimant and IDWR regarding how the water right should be described. In other words, in most cases the water rights in the SRBA will be decreed in the way that IDWR recommends.

This fact illustrates that IDWR bears a major responsibility to ensure that the water rights decreed in the SRBA accurately describe the water uses that the rights authorize and protect. This revised Claim Investigation Handbook has been developed to assist you in investigating the water right claims in the SRBA. Although it is not possible to provide you with a "cookbook" that describes how every individual claim should be recommended, the guidelines in this manual are designed to assist you in exercising and developing your good judgment regarding water right recommendations. It also explains to you the process that will occur from the time you are assigned a claim until that claim is decreed as a water right.

Examinations of claims and preparation of recommendations is complex work. On one hand there is a temptation to be extremely thorough in this process. On the other, the public cannot afford to pay for a "Cadillac" inspection of every water right. We are seeking a "Chevrolet" inspection, maximizing the use of technology to enhance efficiency and accuracy, while developing a speedy and cost-effective product. We are always open to new ways of doing business to achieve this end.

Remember, this Handbook cannot answer every question. Use your common sense; talk with your co-workers; talk with your supervisor and consult with your regional Deputy Attorney General when you deal with a situation not quite answered by this Handbook. In the end, the State is counting on your diligence, hard work and good judgment to complete the SRBA fairly and efficiently.

Copies of this manual may be provided to the public when specifically requested, subject to payment of mailing and/or copying charges. "Subscriptions" for updates will not be available.

THIS CLAIM INVESTIGATION HANDBOOK REMAINS SUBJECT TO REVISION WITHOUT NOTICE TO ANYONE OUTSIDE OF IDWR.

II.
CLAIMS INVESTIGATION AND RESOLUTION PROCEDURE

This Handbook applies primarily to the investigation, reporting and decreeing of irrigation and other water rights. Most of the small domestic and stockwater claims were reported by early 1999. The following flow chart lays out the procedure for the processing of these claims from the time of initial investigation until the water right is decreed.

As you look at the flow chart be aware that investigation/error correction is in IDWR's hands. IDWR determines how it will investigate water rights and conduct error correction. Any deviations from the investigation/error correction flow chart must be approved by the Adjudication Bureau Chief.

Following the submission of the Director's Report to the SRBA District Court, processing of claims is within the Court's jurisdiction and conducted pursuant to Administrative Order No. 1. The SRBA District Court and IDWR cooperated in defining IDWR's involvement in subcases following the objection procedure. However, those procedures were established by the Court, and IDWR cannot deviate from them if it wishes to provide meaningful information to the Special Masters during subcase processing. If you have questions regarding the processing of subcases, contact legal staff with your questions.

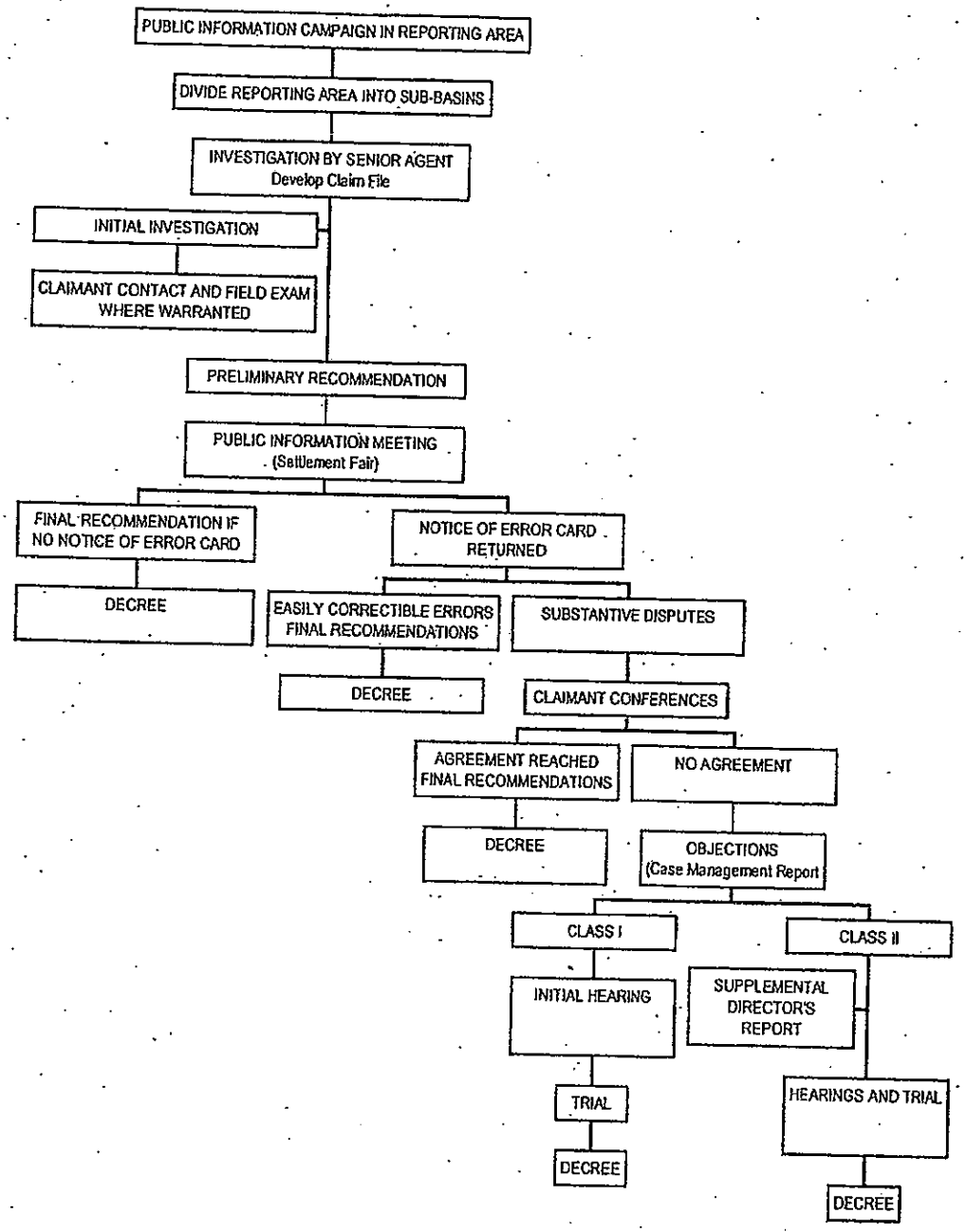
Before IDWR's investigation in a basin begins, contractors will provide GIS shape files and layouts for claims within that basin.

Additionally, a public information campaign may be conducted to inform the citizens of that basin. The State Office will inform the Regional Offices if such a campaign commences in their region.

Claims will be distributed by the regional supervisor to the agents within the region in discrete groups, based upon distinct hydrologic sub-basins. The division of basins into sub-basins is crucial. It allows for the staging of work efforts by the agents both during the investigation/error correction process and during the court process. Regional supervisors will direct comparing the electronic claim inventory with the paper file to ensure that all claims are assigned to an agent.

The agent will want to organize the claims within the sub-basin in a fashion that highlights the inter-relationships between the rights, sources, and ownerships. For instance, the first rights to be investigated could be at the top of the drainage and then the rights moving downstream. The agent must compile a GIS shapefile for all irrigation water rights in the sub-basin. Groupings

SHAPE FILES AND LAYOUTS CREATED BY CONTRACTOR



should allow for a reasonable grasp of the entire group, and reasonable time for field examinations within the group.

After the agent organizes the group of rights for investigation, the steps for investigation follow:

A. INITIAL IN-OFFICE INVESTIGATION.

1. Reviewing Claim--Electronic Record and Claim Investigation File.

For each claim, an electronic record was created with an "A" prefix. The "A" record should be proofed to make sure that it is the same as the written claim and properly coded, including all amended claims.

A duplicate record with an "R" prefix will then be computer generated for each claim. When the manual indicates that the appropriate action is to change the claim, it is the "R" record that is to be changed. The "R" records for a basin will generally not be available to the public until the proposed recommendations for a basin are distributed. The "R" prefixes will be stripped from the "R" records when the director's report is filed with the court.

Under this procedure, the "A" record will continue to reflect the right as claimed, and data-entry during the review stage will be limited to those situations where the claim is going to be recommended differently than it was claimed, or where an amended claim or notice of change in address/ownership is filed after the "R" record is created.

Every claim also should have a "claim investigation file". This file should contain all pertinent information regarding a claim. Care should be taken to ensure that all Notices of Completed Administrative Proceeding (NCAP's), changes in ownership and all other documents relating to a claim are filed in the claim investigation file. When the partial decree is issued for the water right a copy will be placed in this file and it will be maintained in the vault in the state office in Boise. The claim investigation file becomes the basis of IDWR's permanent record regarding that water right.

A claim verification report (CVR) should be included in each claim investigation file. The "quick-look" page of the CVR will be used to indicate the extent of the review that needs to be done and the status of that review. The claimant contact checklist may be attached to indicate the type of claimant contact to be made.

The claim file for each claim should indicate the basis for the recommendation - NOT just the basis for recommendations that are different than the claim. This may be done in the manner that is convenient for the water agent, but should be appropriate to the degree of complexity. It might, for example, be a remark on the CVR or a separate, more detailed, memo to the file. Comments in the electronic record are recommended and should reference relevant information. In

all situations where the recommendation differs from the claim, a brief narrative summary should be given explaining the reason for the difference.

2. GIS Evaluation

The first step of your investigation ordinarily will be to either digitize the water rights or review the digitized water rights provided by the contractor for your sub-basin. This digitizing should be conducted pursuant to IDWR standards. GIS Edits & GIS Guidelines

3. Second Round Service.

Once all claims have been digitized for a group or sub-basin, those irrigated acres where a claim has not been filed should be identified and second round service conducted if necessary.

During investigation of the claims, if IDWR discovers an unclaimed water use (other than small D&S), IDWR is required to serve a commencement notice by certified mail on all persons with a record interest in the property on which water appears to be used. Service is not required to be made to such persons who have already filed a claim in the adjudication, even if for a different use. This is known as second round service, which is described in more detail by an order issued by the district court. Click here to see the plan.

The state office will prepare a list of the parcels and persons previously marked for second round service in a basin. The list should be useful for resolving questions as to whether service has already been made to a particular person or for a particular parcel. Completion of second round service will continue to be primarily a state office effort, supported by regional office input.

4. Review of IDWR records.

The agent needs to review IDWR's records regarding a water use. These records will often assist the agent in determining the water user's intent when the water use commenced, the historical use of the water, how the water use has been transferred and changed, and such basic items as priority date, point of diversion, place of use and so on. Copies of the records, or precise references to them should be maintained in the claim investigation file.

The following is a basic list of records that IDWR may have regarding a water right and the statutory citation for how the record is developed. All agents should be familiar with these records, where and how they are maintained and the information that is found within them.

Posted Notices	Idaho Laws 1881, p. 267, 1899, p. 380
Applications to Lease Water	Idaho Code § 42-108B
Approved Applications to Lease Water	Idaho Code § 42-108B
Applications to Appropriate Water	Idaho Code § 42-202
Water Right Permits	Idaho Code § 42-204

Reports of Beneficial Use Investigation	Idaho Code § 42-217
Water Right Licenses	Idaho Code § 42-219
Applications to Change Water Right	Idaho Code § 42-222
Approved Water Right Changes(Transfers)	Idaho Code § 42-222
Extensions of Time Extending Time for Forfeiture	Idaho Code § 42-222/42-223
Emergency Transfers During Drought Conditions	Idaho Code § 42-222A
Well Drilling Permits	Idaho Code § 42-235
Well Drillers Reports	Idaho Code § 42-238
Consent Orders	Idaho Code § 42-238b(3)/351(3)
Water Right Claims	Idaho Code § 42-243
Permit Cancellations	Idaho Code § 42-310
Orders Revoking Licenses	Idaho Code § 42-350
BLM Stockwatering Permits, Licenses, Certificates	Idaho Code § 42-501
Reports of Watermasters	Idaho Code § 42-606
Reports of Water Diversions	Idaho Code § 42-701(5)
Reports of District Hydrographers	Idaho Code § 42-708
Water Measurement Reports	Idaho Code § 42-706/708
Water Right Decrees	Idaho Code § 42-1403/1413
Approved Minimum Stream Flows	Idaho Code § 42-1503
Dam Plans, Drawings and Specifications	Idaho Code § 42-1712
Supplementary Dam Drawings or Descriptive Matters	Idaho Code § 42-1716
Carey Act Proposals	Idaho Code § 42-2002/2003
Carey Act Contracts	Idaho Code § 42-2009
Applications to Enter Carey Act Lands	Idaho Code § 42-2014
Certificates of Location of Entry on Carey Act Lands	Idaho Code § 42-2014
Proofs of Reclamation and Settlement of Carey Act Lands	Idaho Code § 42-2019
Carey Act Land Patents	Idaho Code § 42-2022
Carey Act Contractors Annual Reports	Idaho Code § 42-2037
Transfers of Water Right in Carey Act Projects	Idaho Code § 42-2504
Petitions to Establish Flood Control Districts	Idaho Code § 42-3105
Reports of Aquifer Recharge Districts	Idaho Code § 42-4212

When you have completed the review of IDWR documents, the GIS information and other photography in IDWR's possession you should have an initial impression of whether the right claimed is consistent with IDWR's in-office records. If IDWR's information is consistent with the claim, then the agent may prepare the preliminary recommendation without further investigation or claimant contact. If the IDWR information is incomplete or does not match the claim, the next step in the investigation is the initial claimant contact and field examination.

B. INITIAL CLAIMANT CONTACT AND FIELD EXAMINATION.

1. Claimant Contact.

During the field investigation process; there needs to be some claimant contact in all cases where the in-office review makes it look likely that IDWR's recommendation will significantly change or reduce any element of the claim. The agent should develop a schedule of field exams for rights within the sub-basin needing further investigation. The schedule should allow the agent to concentrate the field work to minimize the number of times the agent is required to visit an area. The schedule should be developed in cooperation with the claimants to be visited. The agent may use discretion in the means of contacting the claimant, but the following information should be conveyed:

- explain the investigation process;
- identify the agent conducting the investigation;
- set an appointment time for the field exam;
- explain that if the claimant cannot be at this appointment, he/she should call to reschedule the exam within a reasonable amount of time; and
- explain that the claimant should gather all evidence in his/her possession regarding their water use to show the agent during the field exam.

When arranging for the field exam, conducting the exam, and putting the final recommendation together you will likely speak with the claimant often. A written or taped record MUST be made and included in the file, which states the name of the person with whom the water agent spoke, the name of the agent, the date of the conversation, notes of the relevant portions of the conversation, and notes of any other relevant information the agent has about the issue.

2. Field Examination.

The agent should try in as many cases as possible to do the field exam with the claimant present to the full extent the claimant wants to participate. Whenever possible the field exam should be done per an appointment the agent has made with the claimant. The following procedures should be followed during the exam:

(a.) The agent should always take a copy of the GIS map to the field exam. (Two copies may be preferable in cases where it appears likely that the claimant will be asked to mark locations of POD, POU, etc. on the map. The agent should also have a copy for the agent's own use, since a major purpose of the field exam will be to determine on the ground the truth and accuracy of the GIS map itself.) If available, the agent should also take a copy of the ASCS map covering that POU wherever it appears that the claimant may be able to orient himself to the map better than to the GIS map file.

(b.) The agent should communicate to the claimant during the field exam what the agent is observing/ what problems the agent is seeing at that time. The agent should also note comments made or information provided by the claimant--especially numbers repeated by the claimant (such as acres or inches), information on previous/historical use, crop rotation; previous owners, or conflicts with neighbors. The agent should communicate with the water user regarding the appearance or existence of previous diversion systems that may have served the property.

(c.) The agent should have the claimant draw or mark on the GIS map (or the ASCS map if appropriate) the particulars of the water right (e.g. point of diversion, location of ditches, and especially the boundaries/location of the acres irrigated). If the claimant cannot draw the particulars on the map the agent should do so and ask the claimant if he/she agrees. This copy of the map should be clearly identified for the claim file as the claimant's representation of the particulars of the water right. The agent subsequently will prepare the agent's own map, which also should be clearly identified in the claim file.

(d.) The agent should try to reach general consensus with the claimant on the big points during the field exam, but the agent must base recommendations on findings and in some instances agreement may not be possible.

(e.) The agent should take care to photograph land which the claimant asserts is being used or irrigated, but as to which the agent has doubts--especially areas which the claimant asserts are irrigated but which do not appear to the agent to have been irrigated. Notes should be prepared documenting the time, location, orientation, photographer, other persons present, and content of photographs.

(f.) The agent should ask to examine any documentary evidence the claimant might have regarding any element of the water right (e.g. date of priority of a beneficial use right). The agent should make notes (see section (h.) below) as to what these documents are and what they purport to show. The agent should ask the claimant to send copies of whatever documents the agent believes are necessary for retention in the claim file to support the recommendation of any particular element of the right. If--based upon the field exam and the evidence the agent has seen up to that point--the agent believes there is at least an initial disagreement between the claimant and the agent as to any element of the water right, the agent should specify to the claimant either orally or in writing what that initial disagreement is and specify what additional information the claimant might provide the agent in order for the agent to be able to recommend that element as the claimant wants it.

(g.) The agent should leave a business card or field exam card at the conclusion of the exam, and should ask the claimant to call if the claimant thinks

of any additional information about any aspect of the exam or the water right that the claimant thinks the agent should know about. The agent should emphasize and encourage further communication from the claimant.

(h.) Immediately following the field exam the agent should make oral notes of the conversation and his/her observations on a hand-held tape recorder. That recording should then be placed and noted in the claim file. The hand-held tape recorder may not be used to record the agent's conversation with the claimant, unless the claimant knows that the recorder is being used and the recording is made with their full permission. This should be done in rare circumstances, but may be useful to memorialize the observations of an elderly or sickly witness, or one who may leave the jurisdiction.

If the accuracy of the GIS map can be determined during a "drive by" field examination--where the agent would not otherwise meet with the claimant and walk the property--this type of exam should be done if the parcel to be viewed is near other parcels that are to be investigated and would not require a special or time-consuming trip. The "ground-truthing" of the GIS map should be noted on the map by date and time, and the agent's name.

C. PREPARATION OF PRELIMINARY RECOMMENDATION

Following the field exam and the review of the claimant's evidence the agent should be in a position to make IDWR's preliminary recommendation. If the claimant's information has not been provided, the preliminary recommendation should be made as if that information does not exist. The claimant will have another opportunity during the notice of error process to provide the information.

Generally, a right should not be preliminarily recommended substantially "in excess" of the right claimed. This includes a priority earlier than the priority claimed, amounts in excess of the amount claimed, purposes of use in addition to purposes of use claimed, or a total number of irrigated acres greater than the number claimed. An amended claim (or additional claim) is required before the excess may be recommended. An amended claim is generally not required to recommend a different place of use, a different point of diversion, additional points of diversion, or a longer season of use for irrigation.

The agent should generally assume that the claimant claimed everything the claimant wanted to claim. The agent may contact the claimant to inquire whether this assumption is correct or whether they wish to claim the remainder. This contact generally should not be made unless the water right is clearly underclaimed. "Clearly underclaimed" means that there is a significant difference between the claim and a general adjudication decree, license, or the field exam for a beneficial use claim. What is a significant difference requires an exercise of judgment on the part of the agent. For example, a difference of an acre or two on a forty acre claim might not be significant, whereas a difference of an acre or two on a claim to a few acres might be.

1. Proof Of Facts.

In many instances the question of what is to be recommended depends on whether a fact has been sufficiently proven. Absolute proof of every essential fact is never required for making a recommendation. It is impossible to describe to you what evidence is "enough" to prove a fact. The amount of proof that is required to make a recommendation of a water right depends upon your good judgment as well as common sense, with an eye towards the legal burden of proof. The question you must answer in your own mind is whether you feel reasonably certain that your opinion regarding how a water right should be recommended is based upon reasonable facts, assumptions and analyses.

The claimant seeking to have a water right confirmed bears the burden of proof to establish every element of his or her water right. You should feel free to ask the claimant what information they have or could submit at trial that supports their water right. Consider what the Court would do if presented with a certain piece of evidence or testimony. Remember that because this is a civil case the standard of proof the Court will apply is whether a certain element is more likely than not correct.

A good example is proof of priority of beneficial use claims. The claimant submits some information supporting the priority date claimed. Absent contradictory information, the claimant's information would likely be accepted by the Court as meeting the claimant's burden of proof. In this situation the claimed priority date could be recommended. If IDWR has other information which contradicts the claimant's information, then the claimant may be asked to clear up the confusion, if they can, and then all of the relevant information should be "weighed" to determine if the claimed priority is correct.

In determining the facts for purposes of recommending claims, the water agents will have to make some close calls. Make a reasonable attempt to gather the relevant evidence; exercise good judgment in evaluating that evidence; and document the evidence for the file in case it is needed in court later. All the available information should be documented for the file, not just the information supporting the recommendation; for the file to justify the recommendation it must also show the contradictory information that was considered in making the recommendation.

Documentation of information upon which the facts are determined is very important. The more complicated the claim, or the more likely the claim is to be contested, the more important the documentation is. "Documentation" does not necessarily mean that the water agent has to find written evidence before a fact can be determined; it does mean that if a determination is based on information that is not in writing, the agent should prepare written or taped notes for the file.

It is important to remember that once a recommendation is made it is not locked in stone. The claimants will have an opportunity to file notices of error with IDWR to IDWR's proposed recommendation, and will have the opportunity to file objections with the district court to the director's report. More information may become available as part of these processes.

2. Proof of Ownership

IDWR will generally not require proof that the claimant is the owner of the water right claimed or that the right was not initiated in trespass for purposes of preparing the recommendation. Ownership issues should be investigated, however, in the following circumstances:

(a.) Duplicative claims - different claimants file claims to the same water right or the same portion of a water right (See page 2 of Chapter 12);

(b.) There is reason to believe, from information already available to IDWR, that there is an ownership or trespass problem.

3. Disallowal Recommendations.

A claim recommended for disallowal should have a status of "I". The claim should include a GENeral remark indicating the basis for disallowal. Adjudication Memo #32 lists standard remarks for basis for disallowal (the "P" prefix remarks). If none of the standard remarks seem appropriate, then the water agent should contact legal staff.

The recommendation should also include a standard condition that offers a brief explanation of the basis for disallowal and additional explanation should be provided in the comment field. Adjudication Memo #32 lists the conditions for the standard bases for disallowal (the "P" prefix conditions, which are numbered the same as the "P" prefix remarks to which they correspond) and see Chapter 11 for disallowals based upon forfeiture and abandonment. [The disallowal conditions will print only in the proposed recommendations, and not in the report (see Adjudication Memo #32 as to the proposed recommendation/notice of error procedure). It is not necessary to delete any other conditions in the claim record, because the computer will ignore other remarks in a claim record with an "I".

4. Applications For Transfer.

Generally, the agent should consider an approved transfer in the same fashion as a water right license. Conditions of approval should be carried forward in the recommendation if they modify an element of the right or are necessary for the administration of the right. However, because transfers may be ongoing, care must be taken to be sure that the transfer process is coordinated with the recommendation process. Questions should be directed to legal counsel.

(a.) Application approved after claim filed but before recommendation is final.

The adjudication statute requires the claimant to amend a claim consistent with an approved transfer. An approved transfer will be deemed to amend the claim without the claimant having to file an amended claim. Allocations staff will send copies of the approved transfer to the region, and regional adjudication staff should include it in the claim file and data-enter the changes in the "A" record (and the "R" record, if one has been created).

(b.) Application pending at time recommendation prepared.

If an application for transfer has been filed for a change in use that was made prior to commencement of the adjudication, then it may be possible to recommend the change as an accomplished transfer, in which case the administrative transfer proceeding is unnecessary. If the change is to be recommended in the report, then allocations staff should be informed of the recommendation.

If the transfer applied for may not be recommended as an accomplished transfer, then the right should not be recommended with the changes proposed in the transfer application until the transfer has been approved and the order approving the transfer has become final.

5. **Permits For Which Proof of Beneficial Use Was Filed Prior to Commencement.**

There are some permits on file with IDWR for which a proof of beneficial use was filed prior to commencement but for which a license will not have been issued at the time the permit is investigated for purposes of preparing the director's report. Water allocations staff will be coordinating with adjudication staff to ensure that licenses are issued for these rights prior to filing the director's report to the extent possible. Once the license is issued, then the claim should be recommended as based on a license, and an enlargement or accomplished transfer should be reviewed in generally the same manner as any other enlargement or accomplished transfer of a licensed right.

There is, however, one important caveat. For various reasons, there has in some cases been a substantial period of time between the filing of the proof of beneficial use, completion of the licensing field exam, and the issuance of the license. An enlargement or accomplished transfer must have occurred prior to commencement of the adjudication to be claimed in the adjudication, but cannot be claimed based on a permit. The problem that arises from the lapse of time is that a claimant could be prevented from claiming an expansion or change in use that occurred prior to commencement because the water use was still based on a permit at that time.

This problem will be resolved, for purposes of the enlargement and accomplished transfer analysis, by treating the right as if the license were issued when the proof of beneficial use was submitted. The result of this policy is that 1) an enlargement should not be recommended with a priority date earlier than the date the proof of beneficial use was submitted, 2) the date of change for

purposes of the injury analysis will be deemed to be no earlier than the date the proof of beneficial use was submitted, and 3) an enlargement and accomplished transfer should not be recommended for a right for which the proof of beneficial use was submitted after commencement of the adjudication.

There is another situation where coordination of the efforts of adjudications and allocations staff will be very important. In some cases, the extent to which beneficial use has been made of a permit pending action by the allocations staff is dependent on the nature and extent of other water rights, the use of which is combined with the permitted right. Where the claim to be investigated is pending action in the water allocations section, or overlaps with another right pending action in the water allocations section, adjudications staff should coordinate with allocations staff, in a timely manner that allows both sections to meet their schedules.

6. Enlargement claims.

Before any enlargement claims may be recommended pursuant to Idaho Code § 42-1426 they must be published. Prior to completing the preliminary recommendations for a sub-basin the agent should identify all enlargement claims. Type II enlargements will be easy to identify. Type I enlargements are more problematic.

Under Idaho Code § 42-1416(1) holders of previously adjudicated water rights were presumed to have validly applied all of the water being used at the time of the SRBA with no change in priority. This allowed holders of adjudicated water rights to claim all of their water use under their previously adjudicated right under one claim, even if there was an enlargement in use. These claimants claimed, and in the test basins were recommended, one water right with one priority date. **These are Type I enlargements.**

Under Idaho Code § 42-1416(2) holders of unadjudicated water rights who expanded their use in violation of the mandatory permit requirements were presumed to have created an additional water right with a priority date as of the completion of the expansion. These claimants claimed, and in the test basins were recommended, two water rights with differing priority dates. **These are Type II enlargements.**

During the initial investigation and claimant contact the agent should solicit any additional claims for Type I enlargements that claimants wish to file. See [LINK TO the Memo of October 27, 1997] Enlargement Memo, that is designed to assist you in identifying these situations. After the filing of any additional claims the agent should arrange for publication of all enlargement claims at the same time the preliminary recommendations are sent to the claimants. This starts the 120 day period for the filing of petitions to assert injury. During this time period the notice of error process will be conducted.

D. NOTICE OF ERROR PROCESS

1. Overall Approach.

1. Goals of Notice of Error Process: The Notice of Error (NOE) process is to be implemented to achieve the following goals:

   (a). To ensure that each water right recommendation in future director's reports is as accurate as possible;

   (b). To resolve all disagreements between IDWR and the claimant--that possibly can be resolved--before the recommendation of the claimant's water right is included in the director's report, so that most objections filed to recommended water rights are third party objections;

   (c). To identify as early as possible those disagreements between IDWR and the claimant that cannot be resolved through negotiation or alternative dispute resolution prior to the filing of the director's report, to prioritize those issues by degree of complexity per IDWR's case management system, and to direct them onto the appropriate track for resolution by the SRBA Court.

2. Notice of Error Procedures.

Once the agents have investigated all claims in a basin the agents prepare the preliminary recommendations. Each claimant within the basin will then be sent the preliminary recommendations of each of that claimant's claims from the State Office. The NOE mailing will consist of:

(i) An introductory letter from the Director
(ii) an introductory letter from the SRBA District Court urging people to participate;
(iii) one page of instructions and explanatory material;
(iv) the preliminary recommendation with the GIS map, and
(v) the NOE form.
(vi) a return envelope for the NOE.

The NOE forms will be due to the regional office within 30 days of the NOE mailing.

1. The introductory information will set a time for a public meeting which will be conducted as a "settlement fair." The public meeting will be held in the evening at a central location in the reporting area. At that meeting IDWR and Attorney General's Office personnel will be available to answer questions and settle disputes. Claimants will also have the opportunity to set an appointment to discuss their rights. NOE form will be collected at this meeting. If claimants do not attend the public meeting, they will be able to mail their NOE forms to IDWR.

2. Sorting of NOE Return Forms: The NOE forms will be sent back directly to the regional offices. The agent who prepared the preliminary recommendations will receive the NOE forms for those recommendations for placement in the claim file. At that point the agent will sort all water right recommendations into one of three categories:

(a.) Recommendations for which no NOE form is returned will be considered to be completed and that recommendation is ready to be sent to the state office for inclusion in the director's report. Presumably (hopefully) no objection will be received and this right will be decreed as recommended unless a third party objection is received.

(b.) Recommendations for which a NOE form is returned indicating minor concerns such as changes of address, clerical errors, and other changes that the agent feels can be corrected. The agent should make the changes and document the reasons in the claim file. Time permitting, the amended preliminary recommendation should be sent to the claimant with a form letter indicating that the requested change had been made as shown on the revised preliminary recommendation. These recommendations will then be ready to be sent to the state office for inclusion in the director's report. Presumably (hopefully) no objection will be received and this right will be decreed as recommended unless a third party objection is received.

(c.) Recommendations for which a NOE letter is returned which indicate that a meeting should be held with the claimant to review the basis for the recommendation and the basis of the claimant's concerns. Claimant conferences should be set up for these claimants.

3. Claimant Conferences: For NOEs requiring more than form letter response, the agent, legal counsel, and, if necessary, a State Office technical staff person should meet to discuss the NOEs. Based upon this review they should cooperatively develop a schedule of claimant conferences for all NOE claimants. When a workable schedule has been developed, contact should be made with the claimants to set up a conference.

The claimant contact should:

- acknowledge IDWR's receipt of their NOE card;
- set an appointment time for the claimant conference;
- explain that if the claimant cannot be at this appointment, he/she should call to reschedule the appointment within a reasonable time; and
- explain that the claimant should bring all evidence in his/her possession regarding their NOE to discuss at the conference.

IDWR should bring all information upon which it relied in preparing the recommendation to the NOE conference. IDWR will be represented by the investigating agent and legal counsel

with authority to enter into a settlement agreement on the spot. The conference will be primarily an information sharing meeting. The agent should explain--and show to the claimant--all information the agent relied upon in making the proposed recommendation. The claimant in turn should show the agent all information in the claimant's possession that supports the claimant's position. The agent should make for the claim file copies of all documents provided by the claimant. If possible, agreement should be reached as to each element of the water right to be recommended in the director's report. The agent should draft all changes to the proposed recommendation at the conference (e.g. by writing the changes on the face of a copy of the proposed recommendation.) The agent and the claimant should then sign a brief written agreement that this is how the water right will be recommended in the director's report. These recommendations will then be ready to be sent to the state office for inclusion in the director's report after the agent has completed any necessary data entry. Presumably (hopefully) no objection will be received and this right will be decreed as recommended unless a third party objection is received.

The agent and legal counsel should review all claims for which an agreement on IDWR's recommendation was not reached in the claimant conference. This should be the only category of recommendation that might be objected to by the claimant. The nature of the dispute should be classified as Class I or Class II under Administrative Order No. 1. The claim investigation file should be reviewed to ensure that the necessary exhibits are contained in the file. The agent's next involvement with this matter, if any, will be in the context of a subcase proceeding.

E. SUBCASE PROCEEDINGS

If an objection is filed to a recommendation the final decision regarding that water right claim will be made by the SRBA district court. The level of involvement by the agent will depend on whether the case is a Class I or Class II case. The following is a quote from the Administrative Order No. 1 which describes the difference and IDWR's involvement in each type of case:

2. DEFINITIONS

* * *

y. Subcase - A water right which is the subject of any post-Director's Report pleading.

(1) Class One Subcase - Subcases where the difference between the Director's Report and the claim is less than 40 acres and/or the difference in quantity is less than 0.80 cfs and all claims where the objection relates only to owner identification, priority date, source or point of diversion.

(2) Class Two Subcase - Subcases not included in the definition of Class One Subcase.

NOTE: The purpose of separating subcases into two classifications is to expedite the SRBA and provide claimants a speedy and cost-effective method to litigate cases where the difference between the Director's Report and the claim is less significant, as in the Class One Subcases. This allows the court, the parties and IDWR to focus more time and resources on resolving the more significant issues associated with Class Two subcases.

10. PROCEDURE FOR WATER RIGHTS WHERE AN OBJECTION HAS BEEN FILED

a. When the first objection to a recommendation or abstract is filed, a subcase file shall be opened and separately docketed on IWATRS. The water right number becomes the subcase number. All subsequent filings for that water right, including objections and responses, will be docketed under that subcase.

b. Subcases will generally be referred to a Special Master by an Order of Reference.

c. Unless otherwise ordered by the Presiding Judge or a Special Master, each subcase shall proceed separately from other subcases or matters at issue in the SRBA.

d. No later than 30 days after the objection period has expired, IDWR shall file a case management report with the court dividing each reporting area into Class One and Class Two Subcases.

e. Scheduling

(1) Class One Subcases -

(a) At the end of the objection period, the court may hold an Initial Hearing for each subcase. At the Initial Hearing, each claimant and/or objector shall be given an opportunity to meet with IDWR in an attempt to reconcile the difference between the Director's Report, the claim and the objection(s) for each subcase. If the objection(s) cannot be reconciled, the court shall set the matter for trial. The claimant and objecting party, if any, must be present at the Initial Hearing.

(b). The trial should be held within 45 days of the Initial Hearing unless otherwise ordered by the Special Master.

(2) Class Two Subcases - At the end of the objection period, the court shall hold a Scheduling Conference under I.R.C.P. 16(b). These subcases shall proceed under the court's scheduling or pre-trial order.

(3) Discretion of the Presiding Judge or Special Master - On motion of any party to the subcase or as ordered by the Presiding Judge or Special Master, a subcase may be reclassified and proceed accordingly.

f. Amendment of Claims

(1) Class One Subcases - Absent leave of court, claims shall be amended at or before the Initial Hearing except for the name and address of the claimant which may be amended at any time.

(2) Class Two Subcases - Absent leave of court, claims shall be amended no later than 14 days after the Scheduling Conference except for the name and address of the claimant which may be amended at any time.

(3) IDWR investigation of amended claim - The court may request that IDWR prepare an Amended Director's Report for any amended claim, including claims amended at trial to conform to the evidence. The claimant may be ordered to pay all necessary costs associated with investigating and reporting the amended claim.

g. IDWR Involvement

(1) Class One Subcases - Except where a party calls a representative of IDWR as its own witness, the role of IDWR will be limited to presenting geographic information (GIS) in the form of an illustration depicting the place of use and point of diversion. IDWR may also provide any documents such as permits, licenses, decrees or transfers which may be relevant to a claim. A party calling IDWR as its own witness must notify IDWR, in writing, 7 days prior to trial.

(2) Class Two Subcases -

(a) Within 14 days following the Scheduling Conference, IDWR shall serve on each party an affidavit setting forth the factual basis of IDWR's recommendation on the disputed element(s). IDWR shall file the affidavit with the court. The court

may consider the affidavit for any pre-trial matter or in lieu of any direct testimony by the IDWR affiant at trial.

(b) IDWR must be notified, in writing, at or before the pre-trial conference, should any party choose to cross-examine the IDWR affiant or call a witness from IDWR at trial.

(3) Discretion of the Presiding Judge or Special Master - Nothing herein shall prevent the Presiding Judge or Special Master from calling a representative of IDWR as its own witness consistent with I.R.E. 706 or 614 for Class One or Class Two Subcases.

The SRBA attorneys will be establishing case files, especially in the Class II cases, before the objection period has closed. During that time you will be contacted to assist in the development of the necessary evidence to be filed by IDWR. In IDWR's case management report to the SRBA district court subcases will likely be grouped in the sub-basin format under which claims were assigned to you. This should assist you in scheduling discrete time periods when you will need to be in court. Your assigned counsel will keep you informed of the progress of your case.

F. THE OBJECTION SETTLEMENT PROCESS

When an objection has been filed to IDWR's recommendation, "settlement" negotiations often commence between the objectors, any parties filing a response and IDWR. IDWR's role in the negotiations is to ensure that any settlement that is reached reflects a reasonable description of the water right(s) at issue based upon the information brought to it by the parties. After reviewing a proposed settlement IDWR either concurs by signing a Standard Form 5, or recommends that the settlement not be adopted by the SRBA District Court. If IDWR does not concur in a settlement, the subcase will go to hearing.

The settlement process is a collaboration between IDWR staff and their legal counsel. The Regional Supervisor will identify who the responsible agent will be for subcases in that region. This should occur as legal staff is preparing the case management report for a basin. In the event that due to other assignments the regional agent responsible for the water right does not have sufficient time to actively support the objection resolution process, the Regional Supervisor for the agent should seek assistance from the State office for a proxy agent to conduct these duties. Generally, the legal counsel for a region will be the responsible attorney for subcases arising in that region.

The original claim file should be pulled and placed with the responsible agent. Documents in the claim file will be copied and provided to legal staff as they prepare the case management report. Copies of claim files should be provided to legal staff within two weeks of the close of the objection period. Upon settlement of the case, or following trial, and issuance of the partial decree, the original claim files should be forwarded to the State office for storage.

Counsel will take the lead in communicating with the parties or their attorneys in the settlement process. The agent responsible for that water right must work closely with counsel to be sure counsel is fully informed regarding the basis for IDWR's recommendation, and to set the factual framework within which IDWR would be willing to agree to a modification of its recommendation. The agent should not be "locked in" to a recommendation and should have an open mind regarding information provided in the settlement process. All Standard Form 5 agreements must be approved by the agent and approved as to form by their legal counsel.

Settlement negotiations can often begin immediately after the filing of the objection, but typically the negotiations commence after the filing of IDWR's case management report. The negotiations can be informally structured before any action by the SRBA District Court, can be driven by the setting of initial hearings or status conferences, or can be formally commenced by the scheduling of a court ordered settlement conference. Legal counsel will ensure that agents are kept informed and involved in all settlement negotiations. Staff must make time to ensure that the negotiation process moves quickly to resolution.

III.
BASIC IDAHO WATER LAW

A. Water Rights.

1. Basic Legal Regime.

The appropriation doctrine of water rights has prevailed in Idaho since before statehood. *Malad Valley Irrig. Co. v. Campbell*, 2 Idaho 411, 18 P. 52 (1888). The state constitution approved by Congress on July 3, 1890, endorses the appropriation system of water rights. IDAHO CONST. art. 15, § 3 (26 Stat. 215). The Idaho Supreme Court held at an early date that a prior appropriator has a superior right over a riparian water user who subsequently applies the waters to a beneficial use. *Drake v. Earhart*, 2 Idaho 750, 23 P. 541 (1890). The appropriation doctrine governs the use of both surface and ground water in Idaho. IDAHO CODE §§ 42-103 and 42-229.

A water right in Idaho is defined by the historic beneficial use of the water. This historic use is generally described by the following elements or descriptors: date of priority, amount, season of use, purpose of use, point of diversion, source and place of use. *Id.* § 42-1411; *Olsen v. Idaho Dep't of Water Resources*, 105 Idaho 98, 666 P.2d 188 (1983). A water right holder may use water up to the limits of that historic use so long as such use is both beneficial and has not been lost by transfer, forfeiture, abandonment, or adverse possession.

a. Beneficial Use.

An appropriation of water must be for a useful or beneficial purpose. IDAHO CODE § 42-104. There is no statutory limitation on what uses are beneficial. The state constitution recognizes

agriculture, mining, manufacturing, milling, power and domestic purposes as beneficial. IDAHO CONST. art. 15, § 3. The Idaho Supreme Court has held that the beneficial uses set out in the constitution are not exclusive. *State Dep't of Parks v. Idaho Dep't of Water Admin.*, 96 Idaho 440, 530 P.2d 924 (1974) (commonly referred to as the *Malad Canyon* decision). The court found recreation and scenic beauty to be beneficial uses of water under appropriate circumstances. *Id.*

The legislature in 1996 approved statutory changes recognizing as a beneficial use of water the acquisition and holding of water rights by a municipality to provide for future growth. 1996 IDAHO SESS. LAWS 967, codified at IDAHO CODE §§ 42-202, 42-202B, 42-217, 42-219, 42-222. The changes provide that a license may be issued to a municipal provider for an amount up to the capacity of the system constructed provided that the director of the Department of Water Resources determines that the amount is reasonably necessary to provide for the existing uses and reasonably anticipated future needs within the service area of the municipality. *Id.* § 42-219. The director is required to condition the license to prohibit any transfer of the place of use outside the service area, or to allow for a change in the nature of use for amounts held for reasonably anticipated future needs. The law defines "municipal providers" to include (1) cities, counties and state institutions; (2) corporations or associations holding a franchise to supply water for municipal purposes; and (3) corporations and associations supplying water through a regulated "public water supply" system. Id. § 42-202B.

b. "Public" Waters Subject to Appropriation.

Idaho Code §42-101 declares, "All the waters of the state, when flowing in their natural channels, including the water of all natural springs and lakes within the boundaries of the state are declared to be property of the state...." All natural springs and lakes are therefore public waters, subject to appropriation, subject to the laws that establish the procedures for making an appropriation, subject to the laws that govern the distribution of water, and subject to the laws that govern the adjudication of water rights.

A natural channel is "a stream of water flowing in a definite channel, having a bed and sides or banks." Hutchinson v. Watson Slough Ditch Co., 16 Idaho 484, 101 P/ 1059 (1909). The flow of water need not be constant, so an intermittent stream that has a flow only in springtime is still a natural channel. Id. The channel must have some element of permanence, but proof of ancient age is not required. Scott v. Watkins, 63 Idaho 506, 122 P.2d 220 (1942). A stream does not lose its character as a natural channel just because it flows through a marsh that lacks definite sides. Bachman v. Reynolds Irrigation District, 56 Idaho 507, 55 P.2d 1314 (1936). Nor does a stream lose its character as a natural channel just because part of the channel has been artificially created. Poole v. Olaveson, 82 Idaho 496, 356 P.2d 61 (1960).

Ground water has also been declared public property by statute. Idaho Code § 42-226. A permit must now be obtained to appropriate ground water. Idaho Code § 42-229. The Idaho Supreme Court held that the statute did not deprive the overlying landowners of their property without just compensation. State ex rel. Tappan v. Smith, 92 Idaho 451, 444 P.2d 4 1 2 (1968).

c. Water Not Subject to Appropriation.

Some uses of water do not need to be authorized by a water right and do not receive water right protection. These uses are rare and their existence has little or no practical impact on the SRBA. The statutory provisions regarding so-called "private waters" do not really describe water that is not subject to the water rights laws.

i. Diffused Surface Water

Use of diffused water does not require a water right. A landowner has the right to use diffused surface water occurring upon the landowner's property before it joins a natural stream, lake, or other public source. *King v. Chamberlain*, 20 Idaho 504, 118 P.2d (1099). Diffused, surface water is water on the surface of the land "from rains and melting snow, but is in no way fed from any natural stream or regular flow of water", before it enters a natural channel. *King*. Diffused surface water does not include percolating water from springs, or flood flows, because such waters are fed by a regular (albeit intermittent) flow of water. Whether a particular source is diffused surface water is a question of fact, and the answer may involve difficult issues as to the source of water, when it enters a natural channel, and whether it is a significant source of water to a public water source.

There may also be a question as to when there has been a "capture of diffused surface water". For example, terracing is a common practice of dryland farmers in eastern Idaho. The terracing enables the farmer to make better use of the rainfall. This is a "capture of diffused surface water". The damming of natural swales to collect surface water is a common practice in northern Idaho. This is a capture of diffused surface water if the water has not formed into a definite natural channel at the time of capture.

ii So-Called "Private Waters"

Idaho Code §§42-212 and 42-213 use the term "private waters" in their headings. The actual text of these sections does not, however, describe private water that is not subject to appropriation. Idaho Code §42-212 provides:

> Diversion of private waters. - The department of water resources is hereby prohibited from issuing or granting permits to divert or appropriate the waters of any lake not exceeding five (5) acres in surface area at high water mark, pond, pool or spring in this state, which is located or situated wholly or entirely upon the lands of a person or corporation, except to the person or corporation owning said land, or with his or its written permission, executed and acknowledged as required for the conveyance of real estate.

Idaho Code §42-213 provides:

> Diversion of private waters - Applicants must show right of way. - All applicants to the department of water resources or permits to divert or appropriate the waters of any lake, pond, pool, or spring shall state whether such lake, pond, pool or spring is wholly or entirely located upon the land of any person or corporation other than the applicant, and, in the event that it is, such application shall state that the applicant has the written permission from such owner, executed and acknowledged as required by the provisions of the preceding section to divert or appropriate such water.

The only unique attribute of water bodies that qualify as the "private" waters described in Idaho Code §§42-212 and 42-213 is that an applicant for a permit must have a written right of way from the owner of the land where the source is located, and that the application must state whether the application is for private water and whether the applicant has a written right of way. The waters described in those sections continue to be "public" waters subject to appropriation.

iii. Practical Considerations in the SRBA.

Whether or not water is subject to appropriation has no practical consequences for IDWR's activities in the SRBA. In claims taking the claimant must determine whether or not they need a water right for their water use. If they file a claim they are protecting their water right. If they do not file a claim they are gambling that their water use does not need a water right. If it later turns out that the water use does require a water right, the water user would be barred by the provisions of Idaho Code § 42-1420 from claiming a pre-SRBA water right. The assessment of the risk of not filing a claim must be made by the claimant, not the claims-taker, no matter how insistent the claimant's demands for advice.

The department does not investigate whether the claimant of an existing right to the use of water rights of way for the point of diversion or the rest of the water delivery system at the time the appropriation was established. The adjudication deals with existing rights, and where a party has an otherwise valid water right, the water user must have had rights of way for the water delivery system. Otherwise, the landowner would have denied the water user access and thereby prevented the completion of the appropriation. Where a party has an established use, the issue of the whether the water user has a right of way is appropriately litigated by the water user and the owner of the land who claims that the water user lacked the necessary rights of way. The landowner would presumably raise this issue by filing an objection to the director's report.

d. Instream Uses.

Water rights for instream uses are recognized in Idaho. The common understanding has been that such uses are recognized only when acquired by a state agency pursuant to statute. See IDAHO CODE §§ 67-4301 to -4312 (Department of Parks and Recreation) and *id.* §§ 42-1501 to -1505 (Water Resource Board). A recent decision by the SRBA District Court holds that a diversion is not necessary to create a water right. This potentially would allow for others to hold instream flow rights. This decision is being appealed to the Idaho Supreme Court. In addition, the

Idaho Supreme Court has held that the Department of Water Resources has a duty to consider the need for instream flows for fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, navigation, transportation and water quality before approving an appropriative water right. *Shokal v. Dunn*, 109 Idaho 330, 707 P.2d 441 (1985).

e. Measure of the Right.

The rate of flow of a water right is measured in cubic feet per second (c.f.s.), and the volume of stored water is measured in acre-feet. IDAHO CODE §§ 42-102 and 42-202. One c.f.s. is equal to fifty miner's inches in Idaho. When water is used for irrigation, no license or court decree may allot more than one c.f.s. of water for each fifty acres of irrigated land unless it can be shown that a greater amount is necessary. *Id.* § 42-220. When flood or winterflow waters are stored for later irrigation use, no more than five acre-feet of water may be stored for each acre of land to be irrigated. *Id.* § 42-202.

The amount of water that may be diverted under a water right is limited to the historical beneficial use and further limited, at the time of use, to the amount necessary to satisfy the beneficial purpose served by the right. *See Glavin v. Salmon River Canal Co.*, 44 Idaho 583, 589, 258 P. 532, 534 (1927); *Coulson v. Aberdeen-Springfield Canal Co.*, 39 Idaho 320, 323-24, 227 P. 29, 30 (1924). No water user is entitled to make a wasteful use of water. *Twin Falls Land & Water Co. v. Twin Falls Canal Co.*, 7 F. Supp. 238, 251 (D. Idaho 1933). The Idaho Supreme Court has held that many factors enter into a determination of the appropriate duty of water for a particular use based upon considerations of beneficial and economical use. *See Uhrig v. Coffin*, 72 Idaho 271, 274, 240 P.2d 480 (1952). In addition, an appropriator is entitled to a reasonable allowance for loss in conveying the water from the point of diversion to the place of use. *Martiny v. Wells*, 91 Idaho 215, 219, 419 P.2d 470, 474 (1966); *Basinger v. Taylor*, 36 Idaho 591, 597, 211 P. 1085, 1086 (1922).

The Idaho Supreme Court recently ruled that the description of a water right may not be reduced from the historic beneficial use by considerations of current beneficial use, absent a finding of forfeiture, abandonment, adverse possession or other voluntary change such as a transfer. *In re SRBA*, 1997 WL 564393 (Idaho Sept. 11, 1997).

f. Adjudications.

Three types of proceedings exist for the court adjudication of water rights: private adjudications under IDAHO CODE § 42-1404; general adjudications under IDAHO CODE §§ 42-1405 to -1423; and summary supplemental adjudications under IDAHO CODE § 42-1424. A private adjudication determines those water rights necessary to resolve a local dispute. A general adjudication determines all rights to the use of water from a water system. A summary supplemental adjudication may determine rights developed subsequent to the entry of a decree in a private or general adjudication, or determine preexisting rights of a claimant not made a party to the earlier proceeding.

The Idaho Supreme Court recently issued a decision regarding the effect of a prior adjudication in the SRBA. *In re SRBA*, 1997 WL 564393 (Idaho Sept. 11, 1997). The Court indicated that a decree from a private adjudication "evidences" a water right, but is not conclusive. The water right claimant bears the burden to prove each element of the right, and IDWR may make independent findings regarding the right. Presumably this applies to supplemental adjudication decrees as well. On the other hand, the Idaho Supreme Court indicated that a general adjudication decree should be given conclusive effect in the SRBA. *See* Idaho Code § 42-1420.

2. Establishing a Water Right.

The state constitution provides that, "The right to divert and appropriate the unappropriated waters of any natural stream to beneficial use, shall never be denied . . . . " IDAHO CONST. art. 15, § 3. Under this constitutional sanction, IDAHO CODE § 42-103 has provided since statehood that "The right to the use of the waters of rivers, streams, lakes, springs, and of subterranean waters, may be acquired by appropriation." Historically, there are four basic methods by which a water right could be obtained in Idaho: constitutional method, posted notice, permit and enlargement.

a. Constitutional Method.

Surface or ground water rights established by means of diversion and application to beneficial use, prior to the statutory procedure having become mandatory, are called "beneficial or constitutional" use water rights in reference to art. 15, § 3 of the Idaho Constitution. The basic findings that must be made to determine that such a right has been established are: (1) an intent to appropriate water for a beneficial use; (2) diversion; and (3) application of the diverted water to the beneficial use for which it is appropriated. The SRBA District Court recently held that the requirement of diversion is not necessary to create a beneficial use right in Idaho. This decision is on appeal to the Idaho Supreme Court.

Claims for constitutional use rights, other than for domestic purposes, are required to have been filed with the state Department of Water Resources by June 30, 1988. IDAHO CODE § 42-243 (statutory claims). Rights not claimed by that date are deemed lost, unless the right is claimed in a general water rights adjudication proceeding commenced prior to June 30, 1988. Id. § 42-245. Generally, a statutory claim should be evaluated the same as any other affidavit by a claimant. However, the statutory claim speaks ONLY as to the date as of which the claim was filed. It is NOT evidence in support of a priority prior to the date the statutory claim was filed.

b. Posted Notice.

The posted notice method of appropriating water was first enacted in 1881. Idaho Laws 1881, p. 267. This method provided that if the appropriator posted notice of his intent to appropriate water at the point of diversion and recorded that notice in the same fashion as for mining claims in the county where the diversion is located, then if the water use was commenced within a reasonable time the priority date of the right was the date of posting. The primary difference between this and the constitutional method is that there is clear evidence of the appropriator's intent and the priority date of posted notice rights relates back to the date notice was posted. *Sandpoint Water & Light Co. v. Panhandle Development Co.*, 11 Idaho 405 (1905). A posted notice appropriator has a reasonable time within which to apply the diverted water to the intended beneficial use

c. Permit.

The third method of obtaining a water right is the familiar permit method administered by IDWR. First enacted in 1903, the statutes governing the appropriation of water are contained in Title 42, Chapters 1, 2 and 3, Idaho Code. For much of its history the permit system was not mandatory, it simply provided a means to provide an earlier priority date for a water right than the constitutional method. The doctrine of relation allows the priority date of a water right based upon a permit to "relate" back to the date of permit application. To gain the benefit of the doctrine of relation, the requirements of the permit statutes and conditions of IDWR's permits must be strictly followed. *Big Wood Canal Co. v. Chapman*, 45 Idaho 380 (1927).

Compliance with the statutory procedure is now mandatory for establishing an appropriative right to both ground and surface water in Idaho. IDAHO CODE §§ 42-103 and 42-229. Effective March 25, 1963, the Idaho Legislature made the statutory procedure mandatory for the appropriation of ground water. Id. § 42-229. An exception exists for wells diverting water for domestic purposes. Id. § 42-227. The Idaho Supreme Court upheld this mandatory permit procedure in *State ex rel. Tappan v. Smith*, 92 Idaho 451, 444 P.2d 412 (1968). The court held the mandatory permit statute does not violate art. '15, § 3 of the Idaho Constitution, as extended to subterranean waters by IDAHO CODE § 42-103, because the permit statute does not deny the right of appropriation but merely regulates the method and means by which one might perfect a right to the use of ground water.

The statutory permit procedure for the appropriation of surface water became mandatory on May 19, 1971. IDAHO CODE § 42-103. An exception exists for instream livestock watering. Id. § 42-113. Prior to 1971 a surface water right could be obtained in Idaho by diverting unappropriated water and applying it to a beneficial use. *See Nielson v. Parker*, 19 Idaho 727, 115 P. 488 (1911); *Silkey v. Tiegs*, 51 Idaho 344, 5 P.2d 1049 (1931). The Idaho Supreme court has not yet considered a constitutional challenge to the statute but there is no reason to expect that the court would not uphold the mandatory permit procedure for appropriating surface water.

The Idaho Supreme Court has held that the constitution does not make a physical diversion mandatory, but it has construed Idaho's general water appropriation statutes to require a physical diversion. *State Dep't of Parks v. Idaho Dep't of Water Admin.*, 96 Idaho 440, 530 P.2d 924 (1974). An exception exists where the legislature has authorized a state agency to appropriate instream

flow water rights. See IDAHO CODE §§ 67-4301 to -4312 and §§ 42-1501 to -1505. As previously noted, the SRBA District Court recently held that there is no diversion requirement to obtain a water right in Idaho. Because this differs from the historic understanding of how water rights may be obtained there are few, if any, water licenses issued for instream uses in Idaho other than to the Water Resource Board

The Director of the Idaho Department of Water Resources, Statehouse, Boise, Idaho 83720, is responsible for issuing state water right permits. IDAHO CODE §§ 42-202 and 42-1701. An "application for permit" for a proposed water use must be submitted on a department form requiring the applicant's name and address; a description of the water supply, the nature and period of use, the point of diversion, and the time for project completion; and a map of the project. *Id.* § 42-202. A fee is charged which varies with the amount of water sought to be appropriated. *Id.* § 42-221

The department publishes notice of an application for permit in one or more newspapers. Any protest to the application must state the objections to the proposed appropriation. *Id.* § 42-203A. The statute requires a hearing to be held on the protest under the provisions of the state administrative procedure act. Chap. 52, Title 67, Idaho Code. If no protest is filed the department may take action on the application for permit without holding a hearing. *Id.* § 42-203A. If the applicant is aggrieved by the department decision, a hearing may be requested before the agency pursuant to IDAHO CODE § 42-1701A(3).

The statutory criteria for approving an application for permit are: (a) that the use will not reduce the quantity of water under existing water rights; (b) that the water supply is sufficient for the proposed use; (c) that the application is made in good faith and not for purposes of speculation and delay; (d) that the applicant has sufficient financial resources to complete the project; (e) that the project will not conflict with the local public interest; and (f) that the proposed use is not contrary to the conservation of water resources within the state. *Id.* § 42-203A. The director may approve an application in whole, in part or upon conditions, or reject the application. *Id.* The holder of a permit is given up to five years to complete the project a submit proof of beneficial use. *Id.* § 42-204. one five-year extension of time to place the water to beneficial use may be granted upon a showing of due diligence. *Id.* Additional time may be allowed for delay caused by litigation or the obtaining of necessary federal approvals. *Id.*

Judicial review of the agency decision before the district court is limited to a review on the record created before the department. *Id.* §§ 42-203A, 42-1701A and Chap. 52, Title 67, Appellate procedure before the district court is governed by IDAHO CODE §§ 67-5270 through 67-5279 and Rule 83 of the IDAHO RULES OF CIVIL PROCEDURE. Further appeal from the district court to the Idaho Supreme Court is governed by the IDAHO APPELLATE RULES.

After proof of beneficial use is submitted, the department will cause the use of water under the permit to be examined. *Id.* § 42-217. If the results of the examination are satisfactory; the department will issue a license for the right. *Id.* § 42-219. A water right license is binding upon the state and is prima facie evidence of the water right. *Id.* § 42-220.

d. Enlargement.

In 1994, the Idaho Legislature enacted the so-called "amnesty statutes." One of these statutes authorizes recognition of claims to the use of water in the Snake River Basin Adjudication in circumstances where an underlying water right was "enlarged," without complying with the mandatory statutory requirements for establishing a new water right. IDAHO CODE §§ 42-1426. The validity of this statute was upheld by the Idaho Supreme Court in *In re SRBA: Fremont-Madison Irrig. Dist. v. Idaho Ground Water Appropriators, Inc.*, 129 Idaho 454, 926 P.2d 1301 (1996). The court held the statute was constitutional as written. The court determined that the statute permits only those enlargements which do not increase the rate of diversion, do not injure other water rights existing on the date of enlargement, and which fully mitigate any potential injury to junior water rights existing as of the date of enactment of the amnesty statutes. *Id.* at 926 P.2d 1307. IDWR has construed this language to mean that all enlargement rights should be subordinated to rights existing prior to the 1994 passage of Idaho Code § 42-1426 in order to preserve the priority position of those already existing rights.

3. Changing or Losing a Water Right

A water right's historic description can be changed in several ways. The most simple is by the sale or conveyance of the water right to a new owner. Other, more substantive changes, include transfers and changes in use, loss through forfeiture or abandonment, and accomplished transfer.

a. Sale or Conveyance.

Title to previously established state water rights may be acquired in a manner similar to that for acquiring title to land. *See* IDAHO CODE § 55-101. This may include acquisition by lease or purchase, or in appropriate circumstances by eminent domain. IDAHO CONST. art. 15, § 3; *Basinger v. Taylor*, 30 Idaho 289, 164 P. 522 (1917). Water rights in Idaho are appurtenant to the land on which used and pass with a conveyance of the land unless specifically reserved in the deed or unless it can be shown clearly that the parties did not intend the water rights to be conveyed. See IDAHO CODE SS 42-220 and 42-1402; *Hunt v. Bremer*, 47 Idaho 490, 493, 276 P. 964 (1929); *Russell v. Irish*, 20 Idaho 194, 118 P. 501 (1911). However, title to a water right is separate from the underlying land and a water right may be developed by a person not owning the underlying land. *Sarret v. Hunter* 32 Idaho 536 (1919) This ability is limited by the rule that a water right cannot be developed in trespass. *Rabido v. Furey*, 33 Idaho 56 (1920).

b. Administrative Change.

The holder of a water right who desires to change the point of diversion, place of use, period of use, or nature of use of the right must first receive the approval of the Department of Water Resources. IDAHO CODE § 42-222. The application must be on forms furnished by the department. After providing notice and opportunity for protest and hearing, the department may approve the transfer in whole, or in part, or upon conditions, provided the following criteria are

satisfied: (1) no other water rights are injured by the change; (2) the change does not enlarge the use of the original right; (3) the change is consistent with the conservation of water resources within the state; and (4) the change is in the local public interest. *Id.* A change in nature of use from agriculture may be allowed as long as the change does not significantly affect the agricultural base of the local area. *Id.* An expedited procedure is provided for the approval of emergency transfers during drought conditions. *Id.* § 42-222A.

c. Accomplished Transfer.

The second "amnesty statute" enacted in 1994 authorizes recognition of claims to the use of water in the Snake River Basin Adjudication in circumstances where an underlying water right was transferred without complying with the mandatory statutory requirements for changing an existing water right. IDAHO CODE §§ 42-1425. The validity of this statutes was upheld by the Idaho Supreme Court in *In re SRBA: Fremont-Madison Irrig. Dist. v. Idaho Ground Water Appropriators, Inc.*, 129 Idaho 454, 926 P.2d 1301 (1996). The court held the statute was constitutional as written. The court determined that the provision that provides for the prevention of injury to other water right holders and prohibited enlargements allowed for approval of accomplished transfers.

d. Forfeiture, Abandonment and Adverse Possession.

State water rights are generally considered to remain valid for as long as they are beneficially used for an approved purpose. Rights for power purposes licensed after July 1, 1985, are required to be limited to a term of years set by the Department of Water Resources. *Id.* § 42-203B.

All or part of a water right may be lost by statutory forfeiture through a failure for five consecutive years to apply the water to the beneficial use for which appropriated. *Id.* § 42-222(2). An extension of time for an additional five-year period to avoid forfeiture may be requested. *Id.* Water rights appurtenant to land while in a federal cropland set-aside program are not subject to forfeiture. *Id.* Similarly, rights while placed in the state water supply bank are not subject to forfeiture. *Id.* § 42-1764.

The Legislature in 1996 amended Idaho's forfeiture statute to provide that a water right shall not be lost by a failure to divert and apply the water to beneficial use if the water is not needed to maintain full beneficial use under the right because of land application of waste for disposal purposes, including but not limited to discharge from dairy lagoons, used in combination with or substituted for water diverted under the water right. IDAHO CODE § 42-222(2).

The Idaho Supreme Court has frequently addressed the loss of water rights through statutory forfeiture, common-law abandonment, and prescription through adverse use. *See Jenkins v. State, Dep't of Water Resources*, 103 Idaho 384, 647 P.2d 1256 (1982); *Gilbert v. Smith*, 97 Idaho 735, 552 P.2d 1220 (1976). These cases clarify that abandonment, in contrast to statutory forfeiture, is a question of intention and must be evidenced by a clear and decisive act. The cases also confirm

that water rights lost through abandonment or forfeiture revert to the state and are again subject to appropriation from the state.

Forfeiture and abandonment may be prevented by resumption of use. The key to whether resumption prevents forfeiture or abandonment is whether there is injury to other water users by such injury. Injury can include loss of priority, so if there exist other water users on the water source where the resumption occurs there may either be a loss of priority or an invalid resumption.

Prescriptive title to a water right may be acquired by adverse use for five years if the adverse use is open, hostile, exclusive, continuous and under claim of right. *Gilbert v. Smith*, 97 Idaho 735, 552 P.2d 1220 (1976).

IV.
WATER LAW RESEARCH

The following sources are available to persons researching Idaho water law issues:

Idaho Code, Vol. 1 - Idaho Constitution (1980), and Vol. 8 - Water Rights (1990), published by The Michie Company, P.O. Box 7587, Charlottesville, Virginia 22906.

Idaho Department of Water Resources, IDAHO WATER LAW HANDBOOK (1988) (includes Dep't rules and regulations and water rights adjudication handbook).

W. HUTCHINS, WATER RIGHTS LAWS IN THE NINETEEN WESTERN STATES (1971) (Idaho Summary Vol. III, pages 261-286).

Barber, *Statutory Water Rights Permits: A Necessary Problem in Real Property Conveyancing*, 9 IDAHO L. REV. 1 (1972).

Blumm, *Saving Idaho's Salmon: A History of Failure and a Dubious Future*, 28 IDAHO L. REV. 667 (1991-92).

Burnett, *Surface Water and Nuisance Law: A Proposed Synthesis*, 20 IDAHO L. REV. 183 (1984).

Fereday & Creamer, *Swan Falls in 3-D: A New Look at the Historical, Legal and Practical Dimensions of Idaho's Biggest Water Rights Controversy*, 28 IDAHO L. REV. 575 (1991-92).

Frost, *Protecting and Enhancing Wild and Scenic Rivers in the West*, 29 IDAHO L. REV. 313 (1992-93).

Grant, *Registration of Constitutional Method Water Rights*, 17 IDAHO L. REV. 7 (1980).

Grant, *The Idaho Water Plan: Two Threshold Constitutional Problems and Suggested Solutions*, 15 IDAHO L. REV. 443 (1979).

Harwood, *Forfeiture of Rights to Federal Reclamation Project Waters: A Threat to the Bureau of Reclamation*, 29 IDAHO L. REV. 153 (1992-93).

Hutchins, *The Idaho Law of Water Rights*, 5 IDAHO L. REV. 1 (1968) (129 pages - comprehensive).

Krogh, *Water Right Adjudications in the Western States: Procedures, Constitutionality, Problems & Solutions*, 30 LAND AND WATER L. REV. 9 (1995).

Krogh-Hampe, *1986 Idaho Water Rights Adjudication Statute*, 23 IDAHO L. REV. 1 (1986).

Parker, *Fishing From the Bank: Public Recreational Rights Along Idaho's Rivers and Lakes*, 21 IDAHO L. REV. 275 (1985).

Rassier, *Idaho Adjudication Presumption Statutes*, 28 IDAHO L. REV. 509 (1991-92).

Reed, *Should Rivers Have Running? Toward Extension of the Reserved Rights Doctrine to Include Minimum Stream Flows*, 12 IDAHO L. REV. 153 (1976).

Reed, *Use It and Lose It-Surface Water Rights in Idaho*, 15 IDAHO L. REV. 569 (1979) (public trust doctrine).

Rice, *Beyond Reserved Rights: Water Resource Protection For the Public Lands*, 28 IDAHO L. REV. 715 (1991-92).

Note, *Brizendine v. Nampa Meridian Irrigation District: Tort Liability of Irrigation Districts*, 13 IDAHO L. REV. 427 (1977).

Note, *Dayley v. City of Burley: A City's Legal Considerations in Drainage of Excess Surface Waters*, 12 IDAHO L. REV. 125 (1976).

Note, *The Effect of Bonnie and Clyde Upon the Acquisition of Water Rights in Idaho*, 6 IDAHO L. REV. 105 (1969) (mandatory permit statute).

Note, *The Idaho System for the Distribution of Water Among Its Appropriators: An Examination-and Assessment*, 9 IDAHO L. REV. 187 (1972).

Note, *In-Stream Appropriation for Recreation and Scenic Beauty: Idaho Department of Parks v. Idaho Department of Water Administration*, 12 IDAHO L. REV. 263 (1976).

Note, *The Winters Doctrine on Reserved Water Rights in Idaho: Avondale Irrigation District v. North Idaho Properties, Inc.*, 15 IDAHO L. REV. 591 (1979).

CHAPTER 2

NAME & ADDRESS

Idaho Code § 42-1411(2)(a) requires IDWR to determine the name and address of the claimant in its recommendation. Generally, the claimant and the owner of a water right are the same. See Chapter 12 on duplicative claims for advice when there are two claimants for the same water right.

A. ADDRESS AND OWNERSHIP RECOMMENDATION

The agent should recommend the water right to the person or entity and address shown on the claim, or the most recent, proper, notice of change in address or ownership received by IDWR. If there is reason to believe that there has been a change in address or ownership, and proper notice of the change in address or change in ownership has not been received, then the claimant should be contacted to obtain proper documentation of the change. If such documentation is not received, notices will be sent to the claimant or to the name/address shown on the most recent notice of change in address or ownership.

A complete address must be recommended for each right. See Adjudication Memo #18 for more information as to changes in ownership and address.

B. PHONE NUMBER

If available, a phone number should be inserted in the electronic and written file for each right.

C. ATTORNEY

The name of the attorney, if any, representing a claimant should be reflected in the electronic and written file. See Adjudication Memo #22 as to changes in attorney.

CHAPTER 3

PRIORITY DATE

I. INTRODUCTION

A water right's priority date is dependent upon the legal method by which the water right was established. When examining a water right's priority date agents must keep in the front of their mind the significant dates in Idaho water law. Click here for a link to a memorandum setting forth those dates. There are five different methods of obtaining a water right, each with a different method of determining the priority date:

- Beneficial Use Method.
- Posted Notice Method.
- Permit Method.
- 42-1426 Enlargement Method.
- 42-1416B Expansion Method.

II. BENEFICIAL USE WATER RIGHTS.

A. Priority date.

The priority date for a beneficial use water right is the date when water is first appropriated by application to beneficial use. This doctrine can cause problems when a water user has gradually developed the water use over time. There could be multiple water rights for one overall water use. When a water user is claiming gradual development of the water use the agent should likely consult legal counsel to discuss the appropriate priority date(s) to recommend.

B. Evidence of priority

The claim file must document the evidence upon which the agent recommended a beneficial use water right priority date. If that recommendation was based upon an oral conversation with an "old timer" or a claimant relaying their parents' stories, that should be documented in the file with notes or a recording. Obtaining affidavits from "old timers" is also helpful to preserve their testimony. A statutory claim filed under Idaho Code § 42-243 is not evidence of priority. A public information brochure describing the types of information that a claimant may submit to IDWR to show a priority date has been prepared and distributed to the regions. The brochure with an appropriate cover letter should be mailed to all beneficial use claimants in a sub-basin at the beginning of the investigation stage for the sub-basin.

All claimants of irrigation and other rights based on beneficial use must submit information supporting the claimed priority date. It is up to the agent to use common sense to evaluate the credibility of the information, to weigh conflicting information, and to

determine, in light of any contradictory information, whether the claimant's information supports the priority date, and if not, to determine what date it does support. If there is insufficient information to support a priority date that is not in violation of the mandatory permit statute, then the claim should be recommended for disallowal, and should include the following GENeral remark: "NO LAWFUL APPROPRIATION SHOWN." (P01 and condition P01)

A beneficial use priority should not be recommended that is outside the season of use for the purposes of use to be recommended. For example, a priority date of December 31 should not be recommended for a right recommended solely for irrigation purposes. If a claimant provides information that only supports the year in which water was put to beneficial use for irrigation but not a date, the agent should recommend (the last day of the year)(the last day of the irrigation season)(the first day of the irrigation season for the next year)(?)

C. **Effect of Mandatory Permit Statute.**

Where the year of the priority claimed is 1963 and later for ground water or 1971 and later for surface water, there must be some evidence that would tend to show that the appropriation was completed prior to the effective date of the mandatory permit statute, or was commenced prior to the effective date of the mandatory permit statute and completed within a reasonable time thereafter. (The effective dates of the mandatory permit statute were March 25, 1963 for ground water, and May 20, 1971 for surface water) A beneficial use right with a priority after the effective date of the mandatory permit statute may still be valid if the claimant can show that the appropriation was commenced prior to the effective date of the statute and completed with reasonable diligence. See Adjudication Memo #23 for more information as to the effect of the mandatory permit statutes.

Historically, it was not uncommon for a person with a beneficial use right to seek documentation of the right by filing an application for permit. Under the statute, the only priority date that could be licensed was the date of filing the application, even though the right was in fact established earlier.

Where an earlier priority date is claimed for a right for which a license has been issued, then the claim should be reviewed as a claim based on beneficial use, and if recommended with a beneficial use priority, then the basis of the claim should be changed to beneficial use. A new number should be assigned to the beneficial use water right to avoid confusion with the license. However, the evidence submitted by the claimant in support of a claim based on beneficial use should be weighed in light of any evidence in the water right record.

If the claimant's evidence is sufficient to recommend only a portion of the licensed amount with an earlier priority date, then the claim may be recommended as two water rights, one with the earlier priority for the portion of the claim for which the required evidence was submitted, and one with the licensed priority for the remainder.

III. POSTED NOTICE WATER RIGHTS

A. Priority Date.

From February 10, 1881 thru March 11, 1903, Idaho had a "posted notice" statute, which described one means to perfect a water right. As a first step an appropriator was required to post a notice describing the intended appropriation at the proposed point of diversion. The notice then had to be recorded and diversion works were required to be completed and water applied to a beneficial use with due diligence. If the requirements of the statute were satisfied, then the priority date of the water right "related back" to the date of posting. The agent should consult with their legal counsel to determine the exact requirements in effect at the time in question.

B. Evidence of Priority Date.

A posted notice is evidence of the intent to appropriate water, but it is not evidence of application of water to beneficial use nor due diligence in completing the appropriation. Some evidence of completion of the appropriation within a reasonable time after the date of posting must be found by the agent before a claim may be recommended based on a posted notice. Completion within five years is reasonable; the reasonableness of longer periods will depend on the circumstances.

The claimant should be notified that the claimant should submit evidence of the date of first use in the same fashion as beneficial use right claimants. If the claimant submits evidence of completion of the appropriation within a reasonable time following the date of posting, then the date of posting should be recommended as the priority date.

If the date of first use is not within a reasonable amount of time from the date of posting the right might be recommended as a beneficial use right.

1. Sufficiency of posted notice.

The agent should review the posted notice with legal counsel to be sure it met the statutory requirements. The posted notice must contain the following:

a. Name of appropriator
b. Source
c. Amount of water
d. Location of point of diversion
e. Purposes of use
f. Location of place of use
g. Description of means of diversion
h. For notices posted or recorded between March 7, 1895 and February 24, 1899, the length of time necessary to complete the appropriation, which may not be more than five years.

i. Date of recording between February 10, 1881 and March 10, 1903, and within the following time limits from the date of posting:

Prior to June 1, 1887 - 15 days
June 1, 1887 to February 19, 1895 - 10 days
February 20, 1895 to March 10, 1903 - 15 days

The date of recording is the date the notice was recorded with the office of the county recorder for the county in which the land was located at the time the notice was recorded (there have been some changes in county boundaries since the posted notice statutes). A copy of the posted notice from the county recorder's office will have an endorsement by the county recorder that shows the date of recording.

If the posted notice does not meet these minimum requirements, then the basis of the claim should be changed to beneficial use and the claim should be reviewed the same as a claim based on beneficial use.

2. Does the posted notice include the right claimed?

The water right claim based upon the posted notice statute should accurately reflect the information shown on the notice. If not, the agent must examine the right carefully to determine if it is, in fact, the use intended under the posted notice statute. Keep in mind that the original right might have been transferred. If the claimed use cannot be reconciled with the posted notice, examine the claim to determine if it is for a beneficial use right.

If the claimed right is partially included in the posted notice, or may partially be considered a change in use of the appropriation described in the posted notice, then the claim may need to be separated into two claims, one based on posted notice and a second based on beneficial use.

IV. LICENSED WATER RIGHTS

A. Priority Date.

The priority date for a water right based upon the permit/license method is generally the date the application for permit was filed with IDWR. Idaho Code § 42-219.

B. Evidence of Priority.

The priority date of a licensed water right should appear on the face of the license or permit.

V. 42-1416 ENLARGEMENT WATER RIGHTS

A. Priority Date.

The priority date of a water right claimed as an enlargement under Idaho Code § 42-1416 is the date of the completion of that enlargement. The date of completion must be on or before November 19, 1987. In order to prevent injury to junior water users IDWR has also determined that all 42-1416 enlargements should also be recommended with the following subordination remark:

> This water right is subordinate to all water rights with a priority date earlier than April 12, 1994, that are not decreed as enlargements pursuant to Section 42-1416, Idaho Code. As between water rights decreed as enlargements pursuant to 42-1416, Idaho Code, the earlier priority right is the superior right.

B. Evidence of Priority.

A person claiming an enlargement right should be requested to provide evidence of the date of the completion of the enlargement in the same fashion as for beneficial use rights.

VI. 42-1416B EXPANSION WATER RIGHTS

A. Priority Date.

The priority date for a water right recommended under Idaho Code § 42-1416B is June 30, 1985.

B. Evidence of Priority.

No evidence of priority date is necessary for a water right claimed under Idaho Code § 42-1416B. So long as the water right can be recommended under this statute, the statutory priority date should be used.

VII. ACTIONS AFFECTING AVAILABLE PRIORITY

A. Decrees

The available priority dates for water rights claimed in an area that has been adjudicated may be limited. If a water right was required to be claimed in an adjudication, and was not, the claimant may be barred from claiming a water right with a priority date preceding the date of the adjudication decree. The issue of whether, or not, a water right was required to be claimed in an adjudication is complex, and agents should consult with their legal counsel when faced with this question. See Adjudication Memo #14 for the decree dates of some recent adjudications.

Generally, IDWR will place the burden on the claimant to show the claimant is not "bound" by an adjudication, either by showing that the owner at the time of the more recent adjudication was not a party to the more recent adjudication (some water right adjudications

are binding only on named parties, not on all claimants from the source), by showing that particular water right claims were not required to be filed, or by showing that the source claimed was not included in the water system adjudicated. If the claimant does not meet this burden of proof, then IDWR will recommend either that the claim is barred or that the priority date must be advanced to after the adjudication.

Some water rights have been adjudicated more than once. Claims for these rights should be referred for further review by legal staff.

B. Claimed priority date later than available priority date.

Some claimants claim a priority date later than the date which appears to be available to them under a decree, license or other evidence. In this situation the claimant should be contacted to allow the claimant the opportunity to file an amended claim asserting the earlier priority date, otherwise the earlier priority is waived. A priority earlier than the claimed priority may not be recommended.

C. Subordination.

The priority date of a water right may be "subordinated" to water rights that would, in the normal course, have a later priority date. A water right is subordinated when those water rights with a later priority date are moved ahead of the subordinated water right in priority. Subordination can result from voluntary agreement by the water right owner, by operation of legal principles such as laches and estoppel, and through conditions placed on a water right license by IDWR. Water rights that have been should be recommended with a subordination remark placed under the ostensible priority date. Agents should not impose a subordination remark in the absence of clear evidence of subordination.

CHAPTER 4

SOURCE

I. EVALUATION OF CLAIMED SOURCE

A water right's source is first determined at the time of establishment of the right, and then as it may have been transferred. Although determining the source is not particularly dependent upon the legal method by which the water right was established, the evidence available to the agent differs based upon the legal method. This chapter is concerned primarily with claimed sources where there is little evidence regarding historic use of the source, such as with beneficial use rights, and accomplished transfers that have not been approved by IDWR. However, there are a few other general issues described in Section II below of which the agent should be aware.

There are five different methods of obtaining a water right, each with different amounts of evidence regarding the source of water used by the appropriator:

- Beneficial Use Method.
- Posted Notice Method.
- Permit Method.
- 42-1426 Enlargement Method.
- 42-1416B Expansion Method.

A. BENEFICIAL USE WATER RIGHTS

The source of water for a beneficial use water right is the source used when water is first appropriated by application to beneficial use. However, with the passage of the accomplished transfer statute, Idaho Code § 42-1425, the source to be recommended for most beneficial use rights is the source used by the water user as of the commencement of the adjudication on November 19, 1987. The agent's investigation of the source claimed should consist of an evaluation of whether the source claimed under a beneficial use claim is that source of water being used on the commencement date. A field exam will be necessary to fully evaluate this element.

The accomplished transfer statute was a legislative attempt to protect the pattern of water use as of the date of commencement of the SRBA, including source. Therefore, IDWR generally will recommend a beneficial use water right with the source as it existed as of commencement. IDWR will allow the objection process provided in Idaho Code § 42-1425(2)(a) to raise issues of injury and will not do so in its investigation.

The exception to this general rule is that if the agent is aware of an accomplished transfer changing the source of a beneficial use water right, the agent should refer the question of whether or not such a change will be recommended to the State Office for evaluation. An example of this would be where a ground water source is claimed with a

priority date that suggests the right was established using a surface water source. This circumstance should be rare.

B. CLAIM BASED ON DECREE, POSTED NOTICE OR LICENSE

If the claimed source is the same as the source shown on the decree, posted notice or license (as amended by any approved transfers), then no further review of this item generally is required. If the agent's GIS review reveals that the claimed source is inaccurate, the agent may wish to contact the claimant to verify the source information.

If the claimed source is not the same as the source shown on the decree, posted notice or license (as amended by any approved transfers), then the agent should refer the change to the State Office for evaluation.

C. CLAIM BASED ON PERMIT

1. Permits for which a proof due notice was filed prior to commencement

If the claim is based on a permit for which a proof due notice was submitted prior to commencement, then contact water allocations staff in the state office before proceeding with review of this claim. See Introduction for a general discussion of claims in this category.

2. Source claimed different than source on permit

If the claim is to be recommended with a basis of permit, and the source claimed is different than the source shown on the permit (as amended by any approved amendments to the permit), then the source shown on the permit (as amended by any approved amendments to the permit) should be recommended.

A change in source may not be recommended for a claim based on a permit, because the accomplished transfer statute does not apply to permits. The only way to change the source on a permit is to file an application to amend the permit with IDWR.

D. CLAIM BASED ON 42-1426 ENLARGEMENT OR 42-1416B EXPANSION

The source of a claim based on the enlargement statute or a critical GW expansion may not be different than the source of the original right. The evaluation of the enlargement or expansion claim should parallel the analysis used for the base right.

E. RECOGNITION OF ACCOMPLISHED TRANSFER STATUTE.

If IDWR approves an accomplished change in source, then the recommendation should include the following condition: "RIGHT INCLUDES ACCOMPLISHED CHANGE IN SOURCE PURSUANT TO IDAHO CODE 42-1425." (C02)

II. CONSIDERATIONS WHEN IDENTIFYING SOURCE

1. Common names

Use the name for a source shown on the USGS maps. If no name is shown on the map use a local name, if any, or simply a description of the water body. Where the source has a local name that is different from the name shown on USGS maps, then the claim should include the following remark: "SOURCE IS ALSO KNOWN AS _____." (B01)

2. Multiple sources

If the water use has multiple sources, is used in a single delivery system, and a single priority date, the use may be recommended as a single water right. If the water use has more than one source, with a separate systems for each source, and a single priority date, and the claim can readily be split so that each claim shows only one source, then the claim should be split (with alpha suffixes assigned to the claim numbers). If the claim is split, then appropriate remarks should be included where necessary to limit combined use of the rights to the total of the original right See Adjudication Memo #12 as to review of a claim with multiple sources.

3. Wastewater

When investigating claims to wastewater the agent should attempt to identify: (1) the original source of the wastewater, (2) the original appropriator of the water, and (3) the tributary destination of the wastewater. This information should be documented in the claim file. The recommendation should show the source as "wastewater" and the tributary destination. The GO1 and 2 remarks are being re-evaluated, and in the future the original source of the wastewater may also be identified.

4. Developed/salvaged water

Developed water (or foreign water) is water added to the water system that was not previously part of the water system. A right to developed water has a priority independent of the water system to which the water was added (although the right should have a priority relative to the water system from which the water came). Salvaged water is water that was originally part of the water system, then was lost from the system (not through diversion), and is added back in. Salvaged water also has a priority independent of the water system. Conserved water, or water saved through conservation practices (after diversion), is not salvaged water.

Any claim that asserts the water is developed or salvaged should be referred for further review by the bureau chief.

5. Exchanges

The agent should consult with legal counsel if examining a water right claim involving an exchange of water. See Idaho Code §§ 42-105 and 42-240 for more information about recommendation of claims involving an exchange of water from one source for water from another source .

CHAPTER 5

POINT OF DIVERSION

I. EVALUATION OF CLAIMED POINT OF DIVERSION

A water right's point of diversion is first determined at the time of establishment of the right, and then as it may have been transferred. Although determining the point of diversion is not particularly dependent upon the legal method by which the water right was established, the evidence available to the agent differs based upon the legal method. This chapter is concerned primarily with claimed point of diversions where there is little evidence regarding historic use of the point of diversion, such as with beneficial use rights, and accomplished transfers that have not been approved by IDWR. However, there are a few other general issues described in Section II below of which the water agent should be aware.

There are five different methods of obtaining a water right, each with different amounts of evidence regarding the point of diversion of water used by the appropriator:

- Beneficial Use Method.
- Posted Notice Method.
- Permit Method.
- 42-1426 Enlargement Method.
- 42-1416B Expansion Method.

A. BENEFICIAL USE WATER RIGHTS

The point of diversion for a beneficial use water right is the point of diversion used when water is first appropriated by application to beneficial use. However, with the passage of the accomplished transfer statute, Idaho Code § 42-1425, the point of diversion to be recommended for most beneficial use rights is the point of diversion used by the water user as of the commencement of the adjudication on November 19, 1987. The agent's investigation of the point of diversion claimed should consist of an evaluation of whether the point of diversion claimed under a beneficial use claim is that point of diversion of water being used on the commencement date. The claimant should be contacted to determine the point of diversion used prior to commencement of the SRBA. A field exam will be necessary to fully evaluate this element.

The accomplished transfer statute was a legislative attempt to protect the pattern of water use as of the date of commencement of the SRBA, including point of diversion. Therefore, IDWR generally will recommend the point of diversion for beneficial use water rights as they exist as of commencement. IDWR will allow the objection process provided in Idaho Code § 42-1425(2)(a) to raise issues of injury and will not do so in its investigation.

Where the evidence supports a finding that the change occurred after commencement, then the original point of diversion should be recommended. (NAPP

photography may be useful in this regard.) In this situation the agent should notify the claimant that a transfer is required under Idaho Code § 42-222.

B. CLAIM BASED ON DECREE, POSTED NOTICE OR LICENSE

If the claimed point of diversion is the same as the point of diversion shown on a decree, posted notice or license (as amended by any approved transfers), then no further review of this item generally is required. If the agent's GIS review reveals that the claimed point of diversion is inaccurate, the agent may wish to contact the claimant to verify the point of diversion information.

If the claimed point of diversion is not the same as the point of diversion shown on the decree, posted notice or license (as amended by any approved transfers), then the agent should recommend the point of diversion in the same fashion as for beneficial use claims.

If the 1987 point of diversion is different than both the claimed point of diversion and the point of diversion shown on the decree or license (as amended by any approved transfers), recommend the 1987 point of diversion. An amended claim is not required.

The point of diversion is an essential element of a water right. The failure of a decree to include the point of diversion in the listing of rights is an ambiguity in the decree. In other words, when the decree determined the water right, it necessarily determined the point of diversion as of the same time as the rest of the elements of the water right; the decree just failed to describe it. The relevant question at this point is how to resolve the ambiguity. For purposes of preparing the director's report, it will be assumed that the current point of diversion is the decreed point of diversion, unless there is reason to believe that there has been a change in point of diversion. The point of diversion of a claim based on a decree that does not state the point of diversion should therefore be analyzed the same as the point of diversion of a claim based on beneficial use (but the basis of the claim should not be changed).

C. CLAIM BASED ON PERMIT

1. Permits for which a proof due notice was filed prior to commencement

If the claim is based on a permit for which a proof due notice was submitted prior to commencement, then contact water allocations staff in the state office before proceeding with review of this claim. See Introduction for a general discussion of claims in this category.

2. Point of diversion claimed different than point of diversion on permit

If the point of diversion claimed is different than the point of diversion shown on the permit (as amended by any approved amendments to the permit), then the point of diversion

shown on the permit (as amended by any approved amendments to the permit) should be recommended.

A change in point of diversion may not be recommended for a claim based on a permit, because the accomplished transfer statute does not apply to permits. The only way to change the point of diversion on a permit is to file an application to amend the permit with IDWR.

D. CLAIM BASED ON 42-1426 ENLARGEMENT OR 42-1416B EXPANSION

The point of diversion of a claim based on the enlargement statute or a critical GW expansion may not be different than the point of diversion of the original right. The evaluation of the enlargement or expansion claim should parallel the analysis used for the original right. GIS Guidelines

E. RECOGNITION OF ACCOMPLISHED TRANSFER STATUTE.

If IDWR approves an accomplished change in point of diversion, then the recommendation should include the following condition: "RIGHT INCLUDES ACCOMPLISHED CHANGE IN POINT OF DIVERSION PURSUANT TO IDAHO CODE 42-1425."

II. CONSIDERATIONS WHEN IDENTIFYING POINT OF DIVERSION

A. DIVERSION REQUIREMENT

Claims based on state law must have a physical diversion from the natural source, unless an appropriation without a diversion has been authorized by statute. Appropriations without diversions that have been authorized by statute include a) instream flows held by the Water Resource Board, and b) minimum lake level appropriations by the Water Resource Board and other state agencies (all of the claims in these categories should have a permit or license). Although stock watering rights are called "instream" uses, the diversion in these cases is the stock drinking the water. This is distinguishable from wildlife instream uses because wildlife do not drink from natural sources as an instrumentality of human enterprise and intent.

When water is stored or backed-up through the use of a dam structure, even if water is not removed in so many words from the natural stream channel, the location of the dam is the point of diversion.

B. REMARKS DESCRIBING POINT OF DIVERSION

Adjudication Memo #32 sets forth standard remarks to describe the following:

a. common name of ditch (F01),

b. multiple points of diversion in a single tract (F02),
c. point of diversion in center of four tracts (F03),
d. point of diversion on boundary between two tracts (F04),
e. other rights diverted through same point of diversion (F05, F06).

C. POINT OF DIVERSION FLAGS

Where stored water or water from another point of diversion is conveyed in a natural channel, then the point of injection should be included as a point of diversion with an "I" flag, and the point of rediversion should be included as a point of diversion with an "R" flag. See Adjudication Memo #32 for standard remarks identifying the point of diversion to which water is injected and rediverted. (G01, G02).

The beginning point and ending point of instream flow claims should be included as points of diversion with a "B" and an "E" flag.

D. DESCRIPTION OF POINT OF DIVERSION

Use the Geographic Coordinate Database (GCDB) locations to describe the location of the point of diversion. The agent should include government lot, homestead entry, mineral survey number, or government tract descriptions as appropriate. If the claimant has survey data that information needs to be considered when describing the location. See Adjudication Memo #30 as to when the point of diversion should be described by ten acre tract.

E. WHEN IS A CHANGE A CHANGE?

1. Changes within a tract.

An administrator's memorandum dated May 10, 1984 states that an application for transfer is necessary when the point of diversion is moved from one tract to another, or where an additional point of diversion is added, even if the additional point of diversion is in the same tract. A tract for these purposes is the quarter-quarter unless the license, permit, or decree established the quarter-quarter-quarter or other description. However, in adjudication a change in point of diversion condition code should be inserted in the recommendation when a new point of diversion within the same tract is substituted for the old point of diversion to provide notice to other claimants and allow them to assert injury by filing an objection.

2. Additional point of diversion.

An additional point of diversion established prior to commencement of the adjudication may be recommended as a result of an accomplished transfer of the point of diversion. Generally, a partial change in point of diversion results where the claimant established a new point of diversion for a portion of a water right previously appropriated.

In such cases, the partial change in point of diversion should be recommended the same as any other change in point of diversion.

3. New ground water wells.

For ground water right claims the agent must consider whether a new well is a change in point of diversion, or whether it is really a new appropriation from a separate source. The fact that both points of diversion are wells for the diversion of groundwater is not sufficient to make this determination, because the two wells could divert water from aquifers that are not tributary or are separately administered. See Chapter 4 as to changes in source. The agent should consult with legal counsel if this situation arises.

CHAPTER 6

PURPOSE OF USE, QUANTITY FOR EACH PURPOSE, AND TOTAL QUANTITY

I. INTRODUCTION

The purpose and quantity elements of a water right lie at the heart of the description of water use under a water right. The agent must be familiar with how to describe the various uses of water the investigation uncovers. Further, the method by which the water right was established determines to a large extent what evidence is relevant to the purpose of use and quantity to be recommended.

II. PURPOSES OF USE AND QUANTITY

Any use of water can be recommended for a water right so long as the use is for a beneficial purpose. The following subsections describe various beneficial uses, how they should be reported, and the quantity to recommend for each.

Adjudication Memo #32 sets forth standard remarks to describe the following:

a. right measured at point other than point of diversion (D01),
b. portion of right solely for conveyance loss (D02 - D04),
c. storage capacity (D05),
d. facility volume (D06).

The agent's recommendation on quantity must include the rate and volume of diversion for each use, and the total rate and volume of diversion. See Adjudication Memo #31 as to measurement of flow for ground water claims that require field exam; see Adjudication Memo #34 as to which rights require determination of diversion volume. See Application Processing Memo 14 as to determination of amount for rights that include storage purposes.

For a claimed quantity to be recommended, the full amount must be beneficially used and the amount must be reasonable. Otherwise the amount recommended will be limited to a reasonable amount. In determining whether the amount used is reasonable, the following factors should be taken into account: the nature of use, the purpose of use, transmission losses, quantities used for the same purpose by others in the area, and amount of return flows. The fact that water is returned to the stream does not automatically make the diversion unreasonable. A determination that the quantity diverted for a long-standing use is not reasonable is a decision that should be made only after consultation with legal staff and the bureau chief.

There may be instances in which the total quantity may appropriately be less than the sum of the amounts for each purpose, such as where all or part of the amount for one purpose may also be used for another purpose. (For example, if an appropriator diverts 10

cfs for irrigation, and runs that same 10 cfs through a small hydropower facility, the total rate of diversion would be 10 cfs, not 20.)

A. Irrigation.

"Irrigation" is the spreading of water on land to materially increase the productiveness of the land for raising crops. The particular crop to be raised does not need to be identified in the recommendation, but may be necessary to conduct a Hubble analysis. The number of acres irrigated needs to be identified in the recommendation.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for irrigation. Idaho Code § 42-220 provides that no more than an inch per acre may be decreed under a water right unless it is shown that a greater amount of water is necessary. The quantity, alone or as combined, to be recommended for most irrigation rights is an inch per acre. Claims to flows in excess of the statutory standard of an inch per acre have been referred to generally as "excessive flow" claims. Excessive flow claims can be of two types - a single water right for more than an inch per acre, or multiple rights that total more than an inch per acre.

The agent should complete the excess irrigation requirement worksheet to determine if more than an inch per acre is reasonably required. The agent should use the Hubble analysis to determine if the excess amount is necessary due to field requirements. If so the claim should include a remark identifying the per acre rate of diversion at the field headgate. It may be that the excess flow is required for conveyance loss, which is discussed in subsection Q of this section.

The quantity to be recommended should, in the first instance, be the quantity based upon the irrigation system used at the time the adjudication commenced. However, if the water user demonstrates that in the past a reasonable water system used more water to accomplish the same purpose, the agent should recommend a quantity consistent with the needs under the historic system. Use the Hubble analysis to calculate this quantity.

Adjudication Memo #32 sets forth standard remarks for claims to be recommended with excessive flows for irrigation (D02, D03, D04, D08).

The agent should not recommend less than an inch per acre unless (1) the claim is for less than an inch per acre, or (2) historic use has always been less than an inch per acre. When a claimant claims much less water than would appear to be reasonably necessary to irrigate the number of acres claimed the agent should make further inquiry to ensure that the water use is beneficial.

2. Annual Volume.

The agent should recommend an annual volume for all groundwater irrigation rights. Use the "Field Headgate Requirement" map for this determination if the information is not otherwised determined in a license, transfer or reasonable decree.

Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water and should be recommended if contained in a license, transfer or reasonable decree.

B. Municipal.

Municipal use is defined by statute:

> "Municipal purposes" refers to water for residential, commercial, industrial, irrigation of parks and open space, and related purposes, excluding use of water from geothermal sources for heating, which a municipal provider is entitled or obligated to supply to all those users within a service area, including those located outside the boundaries of a municipality served by a municipal provider.

Idaho Code § 42-202B(4). Further relevant definitions are also contained in this section .

1. **Instantaneous Quantity.**

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose.

The amount of water to be recommended for a municipal water right should be at least the amount actually diverted by the municipal provider, and should not exceed the full constructed capacity of the municipal system. The total amount recommended should equal the amount that is reasonably necessary to provide for the existing uses plus the reasonably anticipated future needs of the municipality.

2. **Annual Volume.**

Municipal water rights should not be recommended with an annual volume unless contained in a license, transfer or reasonable decree.

C. Stockwatering.

Stockwatering use refers to the diversion of water for drinking by domestic livestock or wildlife. This use can be either instream (or "in situ"), in which case the diversion is made by the animal itself, or out-of-stream stock watering use. In the case of wildlife there must be some type of human intent to divert the water to create a water right. Thus, drinking from a natural source by natural wildlife does not constitute stockwatering.

Where the purpose to be recommended is stockwatering the use should be further described in "explanatory material." The number and type of stock should be described if known.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose.

For small instream stock watering claims the amount to be recommended is .02 cfs with a limit of 13,000 gallons per day. For small diverted stockwatering claims the amount to be recommended is the claimed cfs, if reasonable, with a limit of 13,000 gallons per day. For large stock watering claims the amount to be recommended is the amount actually used at the time the appropriation commenced. This is dependent upon the number of stock. See Adjudication Memo 36.

2. Annual Volume.

Groundwater rights should be recommended with an annual volume. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

D. Mining.

Mining use refers to the use of water for the exploration for, and extraction and reduction of, raw mineral ore. Generally, mining use should occur at the future or present mine site. The extraction of sand and gravel where there is no effort to recover mineral ore does not constitute mining use. Where the purpose to be recommended is mining, the use should be further described in "other uses."

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose.

The quantity to be recommended is that amount actually used at the time the appropriation commenced. If the agent believes an amount claimed is unreasonable or wasteful, this issue should be referred to the Bureau Chief.

2. Annual Volume.

Groundwater rights for mining should be recommended with an annual volume based on historic annual use. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water and should be recommended if contained in a license, transfer or reasonable decree.

E. Domestic.

Idaho Code § 42-111 defines de minimis domestic water rights for purposes of the exemption from the mandatory groundwater permit requirements and filing fee determinations. Generically, domestic use is defined in Adjudication Memorandum 4.

Where the purpose to be recommended is domestic the use should be further described in the "non-irrigation uses" field. "" For instance, with domestic use for households, the number of households should be described under this field. For domestic uses pursuant to part B of the statutory definition, the facility in which the water is used should be described. A USE remark should be used if the length of the description is longer than 17 characters, including spaces.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. The amount to be recommended for rights established under Part A of the statutory definition is the claimed cfs, if reasonable, with a limit of 13,000 gallons per day. The amount to be recommended for rights established under Part B of the statutory definition is the claimed cfs, if reasonable, with a limit of .04 cfs and 2,500 gallons per day. For other domestic claims the amount to be recommended is the amount actually used at the time the appropriation commenced.

2. Annual Volume.

Non-de minimis,groundwater rights should be recommended with an annual volume. Annual volume may also be recommended for any domestic water right if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

F. Industrial/Commercial.

There is no clear distinction between industrial and commercial uses. Generally, industrial use refers to the use of water in the manufacturing, refining or other processing of a product. It can also be applied to washing agricultural products, food processing and sand and gravel washing. Diverting water with which to create steam at a power generating plant is an industrial use. Commercial uses, generally, are those that use water in a involving service or sales to the general public, other than a production context. Car washes, greenhouses and laundries are examples of commercial use.

Where the purpose to be recommended is industrial or commercial the use should be further described in the "non-irrigation uses" field. A USE remark should be used if the length of the description is longer than 17 characters, including spaces.The facility in which the water is used should be described.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. Actual beneficial use at the time of commencement of the appropriation is the standard measure.

2. Annual Volume.

Groundwater rights should be recommended with an annual volume. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

G. Fish Propagation.

Fish propagation refers to the use of water to raise fish for commercial or public purposes. The recommendation should include a description of the volume of the raceways or other facilities in which the fish are raised.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. Actual beneficial use at the time of commencement of the appropriation is the standard measure.

2. Annual Volume.

Groundwater rights should be recommended with an annual volume. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

H. Power.

Power use refers to the use of water to create electrical or mechanical power. When investigating water use at a hydropower plant information regarding the power generated in kilowatt capacity and the head should be collected and noted in the claim file. Since the 1940's IDWR has imposed a subordination condition on most licenses for hydropower uses. The agent should be sure to carry forward that subordination condition in recommendations for power, power storage or power from storage if contained in a license or subordination agreement. On the other hand, if no subordination condition exists the agent should not recommend such a condition.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. The actual amount beneficially used at the commencement of the appropriation is the standard measure.

2. Annual Volume.

Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

I. Recreation.

Recreation use refers to water use for private, non-commercial sports and entertainment. Examples of recreation use include swimming pools, fishing ponds and water skiing facilities. The recommendation should describe the facilities used and include facility volume, if any.

1. Instantaneous Amount.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. The actual amount beneficially used at the commencement of the appropriation is the standard measure.

2. Annual Volume.

Groundwater rights should be recommended with an annual volume. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

J. Aesthetics.

Aesthetic use refers to the use of water for artistic or landscape purposes. Examples of aesthetic use includes fountains, artificial streams and ponds. The recommendation should describe the facilities used and include facility volume, if any.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. The actual amount beneficially used at the commencement of the appropriation is the standard measure.

2. Annual Volume.

Groundwater rights should be recommended with an annual volume. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

K. Wildlife.

Wildlife use refers to the use of water for wildlife habitat and watering. Because wildlife uses natural water bodies without any human intervention or intent, only that use that results from actual diversion of water qualifies for this purpose of use.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. The actual amount beneficially used at the commencement of the appropriation is the standard measure.

2. Annual Volume.

Groundwater rights should be recommended with an annual volume. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

L. Heating.

Heating use refers to the use of water temperature to warm structures and equipment.

Beneficial use of geothermal water generally requires beneficial use of the heat resource. An agent reviewing a claim to geothermal water should review Idaho Code § 42-233.

Field exams for rights to ground water and springs should include an examination of water temperature. For purposes of preparing the report, a temperature measurement is not usually required. In most cases, it will be readily apparent or the agent will already know that the source is something other than cold water. In such cases, a temperature measurement should be made where it would not be unreasonably difficult. Reasonable attempts should also be made to obtain information as to well depth. The temperature, and well depth data should noted in the water right claim files.

Adjudication Memo #32 sets forth standard remarks to be used to identify rights to geothermal water (B05 - B08).

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. The actual amount beneficially used at the commencement of the appropriation is the standard measure.

2. Annual Volume.

Groundwater rights should be recommended with an annual volume. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

M. Cooling.

Cooling use refers to the use of water temperature to absorb heat and by doing so, cool structures and equipment.

1. Instantaneous Quantity.

If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. The actual amount beneficially used at the commencement of the appropriation is the standard measure.

2. Annual Volume.

Groundwater rights should be recommended with an annual volume. Annual volume may also be recommended if there is a need to protect junior priority rights on a stream, spring or other source with limited quantities of water.

N. Instream Flow.

The Water Resource Board has filed claims for instream flow purposes. These claims are based upon approved applications for minimum stream flows issued pursuant to Chapter 15, Title 42, Idaho Code. These claims should be recommended consistently with IDWR's approval in the permit or license. A quantity is set forth in the approval.

Other claims for instream flow purposes should be referred to the Bureau Chief for review.

O. Fire Protection.

Fire protection use refers to the diversion of water to maintain a fire suppression system. Actual suppression of a fire is not necessary to complete an appropriation for this purpose.

1. Instantaneous Quantity.

The capacity of the fire suppression system at the commencement of the appropriation should be recommended, so long as some amount was actually diverted when the system was developed.

2. Annual Volume.

Annual volume of diversion need not be recommended for fire protection rights.

P. Storage.

Storage alone is not an appropriate purpose of use for water. Storing the water itself should be identified with some eventual use of the water. This storage should be recommended as "storage for (purpose)". Additionally, a purpose of use may be claimed for water released from storage. This use should be recommended by the particular use as follows: "(purpose) from storage".

1. Instantaneous Quantity.

Storage rights are usually not recommended with an instantaneous quantity. However, if the storage right diverts from the stream into a storage facility an instantaneous quantity should be recommended. If not otherwise determined by a license or reasonable decree the agent must determine an instantaneous quantity for this purpose. The capacity of the diversion works at the commencement of the appropriation is the standard measure.

2. Annual Volume.

A storage right should be recommended as an annual volume of storage. The agent should consider whether the storage facility has historically filled more than once per year. Generally, storage rights are limited to one fill per year.

Q. Quantity for Conveyance Loss.

Idaho Code § 42-110 provides that water users are entitled to the quantity of water which they are decreed measured at their point of diversion. Likewise, the Idaho Supreme Court has indicated that water rights are to be measured at their point of diversion. *Glenn Dale Ranches, Inc. v. Shaub*, 94 Idaho 585 (1972). As a consequence, some additional amount of water may be required to compensate for conveyance loss between the point of diversion and the field headgate, if the quantity is not established by a license or decree. The agent should use the Worstell method to calculate this conveyance loss if no other information is available.

If an excess amount (more than 0.02 cfs/acre) is necessary due to conveyance losses, then the right should be recommended with a remark limiting (explanatory material describing?) that portion of the right to use for conveyance losses in delivery of the right. Careful attention should be paid where there are multiple rights and all or part of one or more of the rights is limited to use for conveyance losses. EACH of the rights should contain a conveyance loss remark of some form.

EXAMPLE: Claimant has two rights to surface water from the same point of diversion, which total 1.2 cfs for 50 acres, and one right to 1 cfs of groundwater for the same 50 acres. 0.2 cfs of the surface water rights is in excess of an inch per acre; it is to be recommended due to actual, reasonable conveyance losses. The three rights will contain a combined use remark limiting the three rights to 1.2 cfs for irrigation of 50 acres.

III. EVIDENCE OF PURPOSE OF USE AND QUANTITY.

A water right's purpose of use and quantity is first determined at the time of establishment of the right, and then as it may have been changed. Although determining the purpose of use and quantity is not dependent upon the legal method by which the water right was established, the evidence available to the agent differs based upon the legal method. This section is concerned primarily with claimed purposes of use and quantities where there is little evidence regarding historic use, such as with beneficial use rights, and accomplished transfers that have not been approved by IDWR.

There are five different methods of obtaining a water right, each with different amounts of evidence regarding the purpose for which water is used by the appropriator:

- Beneficial Use Method.
- Posted Notice Method.
- Permit Method.
- 42-1426 Enlargement Method.
- 42-1416B Expansion Method.

A. BENEFICIAL USE WATER RIGHTS

The purpose of use and quantity for a beneficial use water right is based on the use when water is first appropriated by application to beneficial use. As a general matter IDWR will have little evidence of the original purpose of use and quantity for beneficial use water rights.

With the passage of the accomplished transfer statute, Idaho Code § 42-1425, the purpose of use to be recommended for most beneficial use rights is the purpose of use as of the commencement of the adjudication on November 19, 1987. The agent's initial investigation of the purpose of use claimed should consist of an evaluation of whether the purpose of use claimed under a beneficial use claim is that purpose of use of water being used on the commencement date.

IDWR will start with the 1987 information because of the accomplished transfer statute. Idaho Code § 42-1425. The accomplished transfer statute was a legislative attempt to protect the pattern of water use as of the date of commencement of the SRBA. Therefore, IDWR generally will recommend beneficial use water rights as they exist as of commencement. IDWR will allow the objection process provided in Idaho Code § 42-1425(2)(a) to raise issues of injury and will not do so in its investigation.

Where the evidence supports a finding that a change occurred after commencement, then the original purpose of use should be recommended.

The agent should look at available evidence to determine whether the 1987 purpose of use is an enlargement from the use when the right was initiated. Available evidence includes: aerial and other photography in IDWR's possession, county assessors records

regarding irrigated land, interviews with the claimant, and interviews with neighbors or other old timers. If the agent believes that an enlargement has occurred the claimant should be contacted to submit an enlargement claim.

The quantity element for beneficial use rights is more problematic. The accomplished transfer statute does not provide a legal basis to look solely to 1987 information. The agent will need to use claimant contacts, measurements and other research to determine whether the claimed quantity was the amount diverted and put to beneficial use at the time the right was initiated. It is fair that the agent assume that the water user has followed the law and has not enlarged the quantity used in the absence of evidence to the contrary.

If the agent discovers evidence that the quantity used has enlarged over time, the claimant should be notified that the claimant must submit evidence showing that the amount currently used was the amount originally appropriated. The claimant may be urged to file an additional claim for the additional amount with a priority as of the date of the increase and submit some evidence in support of the priority date claimed, or to file an application for permit, depending on when use of the additional amount was initiated. Absent evidence to the contrary, the additional amount should not be recommended because it appears to be a beneficial use in violation of the mandatory permit statutes.

B. CLAIM BASED ON DECREE, POSTED NOTICE OR LICENSE

If the claimed purpose of use is the same as the purpose of use shown on a decree, posted notice or license (as amended by any approved transfers) then no further review of this item generally is required. If the agent's review reveals that the claimed purpose of use is inaccurate, the agent may wish to contact the claimant to verify the purpose of use information.

The total amount decreed or licensed should be recommended as long as reasonable; the original purpose(s) and amounts for each purpose should be recommended to the extent claimed as long as reasonable; and the recommendation should include other claimed purpose(s) and amounts for each purpose that may be recommended as a change in use pursuant to the analysis below. A total amount greater than the total amount decreed or licensed may not be recommended.

Purpose of use is the central element of a water right. The failure of a decree to include purpose of use in the listing of rights renders the decree ineffective. Claims based on such a decree should be examined as beneficial use claims.

There are some decrees in the files which list the name, source, amount, priority, and property to which the water right is appurtenant, but contain only general language as to purpose, such as: "The following rights are decreed for irrigation, culinary, livestock, milling, mining, and other beneficial purposes." This does not mean every water right listed is decreed for any purpose at all and the purpose may be changed whenever the owner feels like changing it. In these circumstances, the general rule is to first look to the decree, or

other documents from the case that are already available in IDWR files. The decree should be interpreted as including any claimed purpose for which there is some specific support in these documents. For example, if a right is decreed to a party in an amount that is consistent with IDWR's irrigation standard or the duty of water set forth in the decree (i.e. 40 inches for use on forty acres), then this is some specific support for an irrigation purpose. If a right is decreed to a power and light company, this is some specific support for a hydropower purpose; similarly, if a right is decreed to a city or town, this is some support for a municipal purpose.

C. CLAIM BASED ON PERMIT

1. Permits for which a proof due notice was filed prior to commencement

If the claim is based on a permit for which a proof due notice was submitted prior to commencement, then contact water allocations staff in the state office before proceeding with review of this claim. See Introduction for a general discussion of claims in this category.

2. Purpose of use claimed different than purpose of use on permit

If the purpose of use claimed is different than the purpose of use shown on the permit (as amended by any approved amendments to the permit), then the purpose of use shown on the permit (as amended by any approved amendments to the permit) should be recommended.

A change in purpose of use may not be recommended for a claim based on a permit, because the accomplished transfer statute does not apply to permits. The only way to change the purpose of use on a permit is to file an application to amend the permit with IDWR.

D. CLAIM BASED ON 42-1426 ENLARGEMENT OR 42-1416B EXPANSION

The evaluation of the purpose of use of an Idaho Code § 42-1426 enlargement or 42-1416B expansion claim should parallel the analysis used for beneficial use rights. The purpose of use should be that purpose as of 1987. Remember that a 42-1416B expansion claim cannot include an increase in volume of use. See Adjudication Memorandum 16C for further explanation of how these claims should be investigated and recommended.

If a claim includes both the original purpose and an enlargement purpose, then the claimant should be contacted to allow the claimant the opportunity to file a separate claim based on Idaho Code § 42-1426 or beneficial use for the additional purpose. The agent should consult with legal counsel when investigating such an enlargement.

E. RECOGNITION OF ACCOMPLISHED TRANSFER STATUTE.

A water right's purpose of use is transferred to an alternate purpose when the original purpose of use ceases, in whole or in part, and the water is instead used, in whole or in part, for a new purpose. Further information on this complex topic is available. [Insert link to administrators memo]An accomplished transferred purpose of use is a change in use that may be recommended with its original priority pursuant to Idaho Code § 42-1425. The agent should consult with legal counsel when investigating such a transfer. By way of contrast, an enlargement occurs when the original use continues without an increase in the diversion rate, and (1) the water is reused for a different purpose, (2) when the new use is made possible by conservation methods employed in making the original use, or (3) a new, non-consumptive use can be added to the original delivery system. Enlargements must be claimed separately.

A change in use may include an expansion in the number of acres irrigated with stored water pursuant to Idaho Code §42-222. In addition, a change to an alternative nature of use of stored water is a change in use that will generally not result in injury to other water rights because the water, once lawfully stored, is not part of the natural flow to which junior appropriators hold rights. Therefore, the review of expansions in irrigated acreage and changes to an alternative nature of use of stored water is the same.

If IDWR recommends an accomplished change in purpose of use, then the recommendation should include the following condition: "RIGHT INCLUDES ACCOMPLISHED CHANGE IN PURPOSE OF USE PURSUANT TO IDAHO CODE 42-1425."

CHAPTER 7

SEASON OF USE

A. GENERAL

Idaho Code § 42-1411(2)(g) requires IDWR to determine "the period of the year when water is used" for each purpose for which a water right is claimed. The Idaho Supreme Court stated in its basin-wide issue number 5 decision that:

> [E]ach irrigator's water right shall be decreed with a specific period of use setting forth a beginning date and an ending date, previously adhered to by IDWR.

In Re SRBA, 98.9 ISCR 363, 366 (April 22, 1998).

B. IRRIGATION SEASON OF USE:

IDWR will recommend the licensed season of use for all licensed irrigation water rights. If an irrigation right has been transferred pursuant to Idaho Code § 42-222 the season established in the approval should be recommended IDWR will recommend the decreed season of use for all decreed irrigation water rights from general adjudications.. IDWR will recommend the decreed season of use from private adjudications, so long as the decreed season is reasonably supportable.

For beneficial use rights, IDWR has re-examined its season of use methodology and expanded its recommended season to take in the majority of the late and early season irrigation use. IDWR will recommend this season for all beneficial use right claimants claiming a full irrigation season right, whether the claim is for a longer or shorter season.

1. Early and Late Season Irrigation.

For the most part, IDWR will recommend an early- and late- season irrigation general provision only when such a provision has been decreed in a general stream adjudication or such use represents historic practice. This is especially important when the provision has been previously decreed, because the length of the decreed season of use may depend upon the existence of such a provision.

If a water right is licensed or decreed with an irrigation season shorter than IDWR's uniform season the following remark,. in most instances, should be placed under the irrigation season:

> The use of water for irrigation under this right may begin as early as [standard irrigation start date] and may continue to as late as [standard irrigation end date] provided other elements of the right are not exceeded. The use of water for irrigation before [licensed or decreed irrigation start

date] and after [licensed or decreed irrigation end date] under this remark is subordinate to all water rights having no subordinated early or late irrigation use and a priority date earlier than the date a partial decree is entered for this right.

This remark should not be placed on a water right that has a short season for a particular reason, ie. as a result of a contested case hearing involving a protested application for permit or transfer, a settlement of a contested case hearing, a specific finding that the shorter season is necessary, or to prevent interference with other water rights. The agent should examine the decree or licensing file carefully to determine if one of these circumstances is present.

2. Customized irrigation season of use

IDWR will consider an irrigation season of use outside the uniform parameters in certain circumstances. See Memo for a discussion of how to consider a customized irrigation season.

C. SEASON OF USE FOR OTHER PURPOSES:

1. Licensed and Decreed Rights.

IDWR will recommend the licensed season of use for all licensed water rights. If an irrigation right has been transferred pursuant to Idaho Code § 42-222 the season established in the approval should be recommended. IDWR will recommend the decreed season of use for all decreed water rights from general adjudications. IDWR will recommend the decreed season of use from private adjudications, so long as the decreed season is reasonably supportable. If the license or decree does not contain a season of use, the right should be treated as a beneficial use right for purposes of season of use.

2. Beneficial Use Rights.

Most beneficial use water rights for uses other than irrigation have a year-round season of use because they are not limited by seasonal factors. Storage water rights for irrigation generally fall into this category as well. As a result, IDWR will generally not seek proof of the season of use for beneficial use rights. If you suspect, however, that a water right has not been, or cannot be, used year-round you should investigate the season of use.

D. CHANGES IN SEASON OF USE.

A water user may wish to claim a changed season of use for a water right. The available records regarding historic beneficial use determine how the agent should investigate and report a changed season of use.

1. Beneficial Use Rights.

IDWR generally has very little record of the historic pattern of use of most beneficial use rights. As a consequence, in most instances the agent should simply recommend the season of use currently applicable to a beneficial use right. Third party objections will be needed to raise issues of injury or enlargement of the season of use. If IDWR has records for a water right indicating a season of use historically different from the claimed season of use, then the right should be treated similarly to a decreed or licensed right.

2. Licensed and Decreed Rights.

The most common example of a changed season of use is when the claimant claims a change in nature of use from irrigation to a nature of use that is year-round, such as storage, municipal or commercial uses. The claimant can obtain this new season of use in a number of ways.

a. Beneficial Use Right.

If the new season of use occurred before 1963 for ground water rights, or before 1971 for surface water rights, the claimant may have a separate beneficial use right for the changed season. The claimant needs to file a new claim for this use, with a different priority date.

b. Enlargement Right.

If the new season of use occurred after 1963 for ground water rights, or after 1971 for surface water rights, and before the SRBA commenced, the claimant may have a separate enlargement right for the changed season. The claimant needs to file a new claim for this use, with a different priority date. Such an enlargement right may be recommended only if the requirements of I.C. §§ 42-1426 or 42-1416B are satisfied, including the subordination of the enlargement right using the standard language. This can be a complex determination, so contact with your legal counsel is recommended in this situation.

c. Transfer.

A claimant may wish to transfer a portion of a water right to a new season of use. To accomplish this, in general, there must be both a cessation of use during a portion of the season of use and new use during a new portion of the period. This can be a complex determination, so contact with your legal counsel is recommended in this situation. If the claimant shows that the change occurred prior to onset of the adjudication, the change should be recommended. If an objection claiming injury is filed, the right will be remanded to IDWR pursuant to I.C. § 42-1425(a) for a determination whether the change caused injury to other water rights.

CHAPTER 8

PLACE OF USE

I. INTRODUCTION

The investigation of a water right's place of use is dependent both upon the type of use and upon which of the five legal methods under which the water right was established. Because the majority of the rights are for irrigation use, this use will receive the most attention.

II. PLACE OF USE GENERALLY.

A water right's place of use is first determined at the time of establishment of the right, and then as it may have been transferred, forfeited or abandoned. Although determining the place of use is not particularly dependent upon the legal method by which the water right was established, the evidence available to the agent differs based upon the legal method. This Section is concerned primarily with claimed place of uses where there is little evidence regarding historic use of the place of use, such as with beneficial use rights, and accomplished transfers that have not been approved by IDWR. There are specific issues relating to irrigation and municipal water rights that are described in Sections III and IV below.

There are five different methods of obtaining a water right, each with different amounts of evidence regarding the place of use of water used by the appropriator:

- Beneficial Use Method.
- Posted Notice Method.
- Permit Method.
- 42-1426 Enlargement Method.
- 42-1416B Expansion Method.

A. BENEFICIAL USE WATER RIGHTS

The place of use for a beneficial use water right is the place of use used when water is first appropriated by application to beneficial use. As a general matter IDWR will have little evidence of the original location and size of the place of use for beneficial water rights. However, with the passage of the accomplished transfer statute, Idaho Code § 42-1425, the place of use to be recommended for most beneficial use rights is the place of use used by the water user as of the commencement of the adjudication on November 19, 1987. The agent's initial investigation of the place of use claimed should consist of an evaluation of whether the place of use claimed under a beneficial use claim is that place of use of water being used on the commencement date. This should be done in the first instance by the GIS analysis of the 1987 NAPP photography.

IDWR will start with the 1987 information because of the accomplished transfer statute. Idaho Code § 42-1425. The accomplished transfer statute was a legislative attempt to protect the pattern of water use as of the date of commencement of the SRBA. Therefore, IDWR generally will recommend beneficial use water rights as they exist as of commencement. IDWR will allow the objection process provided in Idaho Code § 42-1425(2)(a) to raise issues of injury and will not do so in its investigation.

Where the evidence supports a finding that the change occurred after commencement, then the original place of use should be recommended. (NAPP photography may be useful in this regard.)

The agent should look at available evidence to determine whether the 1987 place of use is an enlargement from the use when the right was initiated. Available evidence includes: aerial and other photography in IDWR's possession; county assessors records regarding irrigated land; interviews with the claimant; interviews with neighbors or old timers. If the agent believes that an enlargement has occurred the claimant should be contacted to submit an enlargement or additional beneficial use claim. Otherwise, the agent should not include the enlargement area in the preliminary recommendation for the beneficial use right.

B. CLAIM BASED ON DECREE, POSTED NOTICE OR LICENSE

If the claimed place of use is the same as the place of use shown on a decree, posted notice or license (as amended by any approved transfers) and they all correspond with IDWR's GIS analysis, then no further review of this item generally is required. If the agent's review reveals that the claimed place of use is inaccurate, the agent may wish to contact the claimant to verify the place of use information.

If the claimed place of use is not the same as the place of use shown on the decree, posted notice or license (as amended by any approved transfers), then the agent should recommend the place of use as of 1987 in the same fashion as for beneficial use claims.

If the 1987 place of use is different than both the claimed place of use and the place of use shown on the decree or license (as amended by any approved transfers), recommend the 1987 place of use. An amended claim is not required.

The place of use is an essential element of a water right. The failure of a decree to include the place of use in the listing of rights is an ambiguity in the decree. In other words, when the decree determined the water right, it necessarily determined the place of use as of the same time as the rest of the elements of the water right; the decree just failed to describe it. The relevant question at this point is how to resolve the ambiguity. For purposes of preparing the director's report, assume that the 1987 place of use is the decreed place of use. The place of use of a claim based on a decree that does not state the place of use should therefore be analyzed the same as the place of use of a claim based on beneficial use.

C. CLAIM BASED ON PERMIT

1. Permits for which a proof due notice was filed prior to commencement

If the claim is based on a permit for which a proof due notice was submitted prior to commencement, then contact water allocations staff in the state office before proceeding with review of this claim. See Introduction for a general discussion of claims in this category.

2. Place of use claimed different than place of use on permit

If the place of use claimed is different than the place of use shown on the permit (as amended by any approved amendments to the permit), then the place of use shown on the permit (as amended by any approved amendments to the permit) should be recommended.

A change in place of use may not be recommended for a claim based on a permit, because the accomplished transfer statute does not apply to permits. The only way to change the place of use on a permit is to file an application to amend the permit with IDWR.

D. CLAIM BASED ON 42-1426 ENLARGEMENT OR 42-1416B EXPANSION

The evaluation of the place of use of an Idaho Code § 42-1426 enlargement claim should parallel the analysis used for beneficial use rights. The place of use should be that area that was irrigated as of 1987.

If a claim includes both the original acres and an enlargement in irrigated acres, then the claimant should be contacted to allow the claimant the opportunity to file a separate claim based on Idaho Code § 42-1426 or beneficial use for the additional acres. The original claim should be limited to the number of original acres under the water right. Where the claim includes a change in use as well as an enlargement, it may be difficult to tell which acres should be recommended. In such cases, a common sense approach should be used, taking into account any information as to where the enlargement is likely to have occurred, the nature of the diversion system, etc.

Idaho Code §42-1416B expressly provides that an expansion in irrigated acres from groundwater in a critical GW area that occurred after designation of the critical GW area may not include an increase in either diversion volume or rate. Therefore, there must be information from the claimant with which it can be determined that there has been a change in cropping or in the method of application which would allow the same volume to be spread to additional acres, and to determine the number of additional acres (up to the total number of additional acres claimed) to which the original volume can be spread. If such a determination cannot be made, then the claim should be recommended for disallowal, and should include the following remark: "NO LAWFUL APPROPRIATION SHOWN." (P01 and condition P01)

E. RECOGNITION OF ACCOMPLISHED TRANSFER STATUTE.

If IDWR recommends an accomplished change in place of use, then the recommendation should include the following condition: "RIGHT INCLUDES ACCOMPLISHED CHANGE IN PLACE OF USE PURSUANT TO IDAHO CODE 42-1425."

III. PLACE OF USE FOR IRRIGATION WATER RIGHTS.

The basic process for determining the place of use for irrigation water right claims is set forth in the Introduction to this handbook. The agent should try to reconcile the claim, the GIS analysis, and IDWR's records. When they all correspond, the recommendation should be fairly straightforward. When they do not correspond claimant contact, both in the initial investigation and during the error correction process, is crucial to developing an understanding of how and where the irrigation water is used. Further, development of the digitized claims is critical for determining second round service of unclaimed or underclaimed water rights. Protocols for IDWR's GIS analysis have been developed and the agent should be familiar with them.. GIS Guidelines

Additional topics regarding the investigation of the place of use for irrigation water rights follow.

A. Water Delivery Organizations

Idaho Code § 42-1411(2)(h) requires IDWR to determine "a legal description of the place of use; if one (1) of the purposes of use is irrigation, then the number of irrigated acres within each forty (40) acre subdivision, except as provided in section 42-219". (Emphasis added.) Idaho Code § 42-219(5) and (6) provide, in part, that:

> (5) For irrigation projects where the canals constructed cover an area of twenty-five thousand (25,000) acres or more, or within irrigation districts organized and existing as such under the laws of the state of Idaho ....It shall not be necessary to give a description of the land by legal subdivisions but a general description of the entire area under the canal system shall be sufficient. ....
>
> (6) For an irrigation project developed under a permit held by an association, company, corporation or the United States to divert and deliver or distribute surface water under any annual charge or rental for the beneficial use by more than five (5) water users in an area of less than twenty-five thousand (25,000) acres, the license issued shall be issued to the permit holder. For the place of use description in the license issued for the irrigation project, it shall be sufficient to provide a general description of the area within which the total number of acres developed under the permit are

located and within which the location of the licensed acreage can be moved provided there is no injury to other water rights. (Emphasis added.)

The agent should read these sections very carefully before constructing the place of use for water distribution entities. For instance, subsection 5 applies as follows:

*All irrigation districts come under this section.
*Irrigation projects covering more than 25,000 acres come under this section.
*The project may utilize either ground or surface water.
*The generally described place of use must be "under" the delivery system.

Subsection 6 applies as follows:

*Irrigation projects delivering or distributing surface water to under 25,000 acres come under this section.
*There must be at least 5 water users in the project.
*The generally described place of use functions like a permissible place of use.

The state office will solicit the boundaries from the water delivery organizations in advance of the regional office investigation. The boundaries will be digitized in the state office prior to assignment to the agent. The agent should then provide a first draft of the boundary to the organization and any State or Federal agency owning land within the draft boundary. What will follow should be an exchange of information until IDWR makes its final determination regarding the boundary and acreage it will recommend to the district court. The final recommendation of the boundary should result from a careful consideration of the information of the water delivery organization and governmental entities by the agent. Extensive claimant contact is expected for these claims, as well as consultation with IDWR legal staff. GIS Guidelines

B. **Transfer vs. Enlargement.**

When investigating the place of use for an irrigation water right claimed at a location different than that shown on IDWR's records the agent should keep in mind the difference between an accomplished transfer and an enlargement. An accomplished transfer occurs where the new place of use is different than the old place of use, but irrigated acres at the new place of use is no greater than the old place of use. An enlargement has occurred where the irrigated acres at the new place of use is greater than the old place of use. An enlargement must be claimed and recommended as a separate water right. [INSERT LINK]

When investigating an accomplished transfer for a licensed or decreed water right, the agent should check to be sure that the irrigated acres at the original place of use have been dried up. If not, then an enlargement of some sort has occurred. However, an accomplished transfer of the place of use of an irrigation storage water right may include an increase in the number of acres irrigated without being considered an enlargement pursuant to Idaho Code §42-222.

C. Supplemental rights

Rights are supplemental when they are for the same purpose of use at the same place of use, and the total amount of the rights (diversion rate and diversion volume) on their faces add up to more than the total that can be beneficially used. Generally, supplemental rights are from different sources, but may in some instances be from the same source. Supplemental rights are an exception to the general rule that rights for the same purpose at the same place of use may only "add up" to the total that can be beneficially used for that use.

Sometimes an appropriator will rely primarily on a right from one source (for example, surface water), with the result that this right is sometimes referred to as the "primary" right. The appropriator will then supplement the surface water with other water (for example, stored water), with the result that this right is sometimes referred to as the "supplemental" right. For purposes of this analysis, both rights are referred to as supplemental to each other and have, at least in part, the same place of use.

Generally, supplemental rights may not be "unstacked" and recommended to different places of use. Doing so would enlarge the total use.

D. Permissible Places of Use.

A permissible place of use occurs where the claimant irrigates a limited number of acres within a larger place of use with the water right. This often occurs through an accomplished transfer. GIS Guidelines

E. Partition of Property and Water Right,

Questions are going to arise where there is an ambiguity as to the number of irrigated acres and the property has been partitioned by sale of a portion of the property. The general rule is that where one conveys part of a parcel of land with appurtenant water rights, one also conveys a proportionate part of the appurtenant water right, unless the deed provides otherwise or there is clear evidence of a contrary mutual intent.

EXAMPLE

An old decree for the Weiser River describes a right to 5 inches of water that is appurtenant to a 120 acre parcel. The decree has a uniform duty of water of 5/8" per acre. Assume, therefore, that the original number of irrigated acres is eight acres. The 120 acre parcel has since been split into two 60 acre parcels, now owned by different owners. In this instance, the right was fully claimed by one owner and no claim was filed by the other owner, so presume that the owner who filed the claim owns the entire water right. However, if a claim were filed by the other owner, then presume that each owner acquired one-half of the right (four acres worth), unless the claimant(s) submitted evidence to the contrary. Absent such evidence, a

claim to more than four acres by either claimant would be analyzed as an enlargement.

IV. MUNICIPAL WATER RIGHTS.

The place of use for a municipal water right is its "service area" defined in Idaho Code § 42-202B. The investigation process for these service areas for municipal water right claimants who have brought themselves under the provisions of this statute by a transfer or license issued after 1996 will be similar to that being done for water delivery organizations. The state office will solicit the boundaries from the municipal water providers in advance of the regional office investigation. Those boundaries will be digitized before assignment to a senior agent. The agent should then provide a first draft of the boundary to the municipal provider. What will follow will be an exchange of information until IDWR makes its final determination regarding the service area it will recommend to the district court. If total claims to pre-1996 municipal water rights for a municipal provider do not exceed its total installed capacity, IDWR will not investigate the place of use, and will simply recommend the "service area."

V. REMARKS DESCRIBING PLACE OF USE.

Adjudication Memo #32 sets forth standard remarks to describe the following:

a. Subdivision parcels (J01),
b. Other common means of identifying place of use, such as homestead entry number, etc. (J02),
c. Place of use is lands within municipal service area(J03),
d. Place of use for irrigation is in another state (J04 - J09).

GIS Guidelines

CHAPTER 9

OTHER RIGHTS

When IDWR developed its claim form it invited parties to identify on their claim "other rights" used on the same place of use for the same purpose. This information was then put into a database field entitled "other rights." Although this field, as such, is not one of the elements reported by the Director, it could be helpful during the investigation process. Use the information in this field to begin analysis of combined use limitations and overlapping rights. See Adjudication Memo #32 for standard remarks.

CHAPTER 10

REMARKS

See Adjudication Memo #32 for standardized remarks and conditions. Remarks for specific elements of a right are often noted in this manual in the discussion of that element.

CHAPTER 11

FORFEITURE AND ABANDONMENT

This chapter provides guidance to the agents when developing recommendations in the SRBA based upon the concepts of total or partial forfeiture or abandonment. Always remember, however, that the focus of the agent's investigation should be to confirm the water use as claimed. The agent should recommend forfeiture only when the agent finds virtually no evidence of beneficial use during a five year period or clear intent to abandon the water use. These circumstances should be rare.

I. ABANDONMENT

The doctrine of abandonment has been established by case law (unlike forfeiture, which is established by statute). The elements of abandonment are "intent to abandon" the right, **concurrent** with "actual relinquishment" of the right. Intent to abandon must be shown by "clear and unequivocal acts"; nonuse alone is not sufficient, but a substantial period of nonuse gives rise to a **rebuttable** presumption of intent to abandon. Unlike forfeiture, no defenses to abandonment have been recognized.

Absent a substantial period of nonuse, abandonment is generally difficult to prove, due to the requirement of evidence of intent to abandon by "clear and unequivocal acts." The following example provides guidance to the agent regarding a situation in which it is appropriate to initially recommend **abandonment** when considering evidence of intentional relinquishment of water rights:

- A farmer makes statements to neighbors to the effect that he's had enough and isn't going to farm his land anymore, and proceeds to plow under the ditches and dig up the headgates.

II. THE IDAHO SUPREME COURT'S EMPHASIS ON HISTORIC BENEFICIAL USE IN WATER RIGHT FORFEITURE ANALYSIS.

The Idaho Supreme Court has provided direction to the SRBA District Court regarding how it is to analyze water rights in the adjudication. The following steps describe the legal analysis necessary to determine whether a water right has been forfeited:

1. Define the elements of the water right using the scope and extent of historic beneficial use at the inception of the right as defined by the constitutional, posted notice, permit, or enlargement methods of obtaining a water right.

2. Determine if clear and convincing evidence establishes that water was not used under this water right for a period of five consecutive years from the date of the

inception of the right to the present (this will be referred to as determining continuity of use).

3. If a five-year cessation in water use has occurred, determine if any of the statutory or common law defenses to forfeiture are present.

4. If a five-year cessation in water use has occurred, but the use has resumed, determine if any other water right holders are injured by such resumption.

When an agent is asked to present the basis for a forfeiture recommendation in court, the agent must be sure that the analysis described above has been fully conducted. The analysis should be fully documented in the claim file. Section III, below, describes the circumstances when this complete analysis is necessary.

III. PARTIAL FORFEITURE.

The agent must consider the following when making a partial forfeiture recommendation:

A. Irrigation Uses.

An irrigation use may be recommended as partially forfeited only if there is a reduction in the actual number of acres irrigated. Descriptive elements of a water right, standing alone, will not be recommended as forfeited except in the context of a limitation in the number of acres. When there is a recommendation of partial forfeiture based upon the number of acres irrigated, the diversion rate and volume may need to be adjusted down, depending upon the extent of the original diversion rate and volume.

B. Other Uses.

For all other uses, the agent should consult with their legal liaison and State Office staff if there is a potential partial forfeiture.

IV. CLEAR AND CONVINCING EVIDENCE OF FORFEITURE?

It is not possible to provide a general rule for what constitutes clear and convincing evidence of forfeiture. There is a range within which different fact-finders could find forfeiture. At one end of the range would be two photographs, five years apart which show that water was not used in either of those years. At the other end of the range would be physical evidence such as a parking lot or a diversion system with limited capacity that was in place for five or more years. In between is a host of possibilities with testimony from neighbors, watermaster records, electrical bills, assessors' records, crop records, and so on. The question is: when looked at most favorably for the water right holder, does the evidence clearly show that water was not used for five years?

The type and degree of evidence of forfeiture will determine how IDWR participates in subcase proceedings. In situations where IDWR has some evidence of forfeiture, the agent may recommend forfeiture, but should not expect IDWR to submit extensive evidence of this recommendation if challenged in a subcase. The forfeiture recommendation will be used to raise a presumption that water has not been used for a specifically identified five year period, and the claimant will have to specifically rebut this presumption with evidence showing **continuity of use.** Where IDWR has what it considers to be clear and convincing evidence of forfeiture, IDWR will enter the full basis for its recommendation in a Class II subcase context. Forfeiture cases should be discussed with the agent's legal liaison when the case management report to the SRBA District Court is being prepared to assess the strength of the recommendation.

The following examples provide guidance to the agent regarding situations in which it is appropriate to initially recommend **forfeiture** when considering evidence of non-use of water rights:

- Permanent physical features preventing use, such as parking lots or homes, are constructed after the right is established.
- Two photos greater than five years apart showing no use.
- A photo and field exam greater than five years apart showing no use.
- Anecdotal information from a neighbor of five consecutive years of non-use.

If the claimant presents evidence during the notice of error process that establishes **continuity of use** and disproves forfeiture, the preliminary recommendation will be changed. If not, the forfeiture recommendation will be issued to the SRBA District Court and the claimant will need to show **continuity of use** to the Court.

The following examples illustrate situations when **forfeiture should not be recommended** when considering evidence of non-use of water rights:

- Incidental acreage not irrigated due to the characteristics of the irrigation system, such as corners on land now irrigated with circles, but originally square.
- Water use resumed in good faith at time of field examination.
- Less than five percent (< 5%) discrepancy between claimed irrigation acres and irrigation determined by G.I.S. analysis.

In these situations third parties would have to allege and prove forfeiture if they disagree with IDWR's recommendation.

V. RECOMMENDING FORFEITURE IN THE SRBA.

The following is how various right categories will be treated by IDWR *vis a vis* forfeiture in the SRBA:

A. Beneficial Use Rights.

Although, as a technical matter, there are only four methods or bases for developing a water right in Idaho--beneficial use, posted notice, permit method, and §42-1426 enlargement--IDWR generally considers "decree" as being the fifth basis for a water right. For purposes of this section, beneficial use rights will be considered to be those rights that are not memorialized in a water rights decree. For beneficial use rights IDWR will not investigate or recommend forfeiture.

For beneficial use water rights IDWR will recommend recent beneficial use as shown by aerial and satellite photography, field examinations, and other general information in the possession of IDWR. IDWR will not extensively investigate the historic development of these rights, except in the context of priority date, and will not make recommendations based upon forfeiture. Beneficial use rights will be recommended as either: (1) a right described by recent beneficial use or (2) disallowed based upon no recent beneficial use.

B. Posted Notice Rights.

Posted notice water rights will be treated in the same way as beneficial use rights.

C. Licensed Rights.

IDWR will recommend forfeiture in appropriate circumstances for water rights based upon the statutory permit method. The license will be considered to describe the elements of the right.

In situations where there is evidence of past non-use, but the licensed right is currently being used consistently with the license provisions, the right will be recommended as licensed. Third parties will need to raise issues of forfeiture and injury if the use of a right has resumed after a period of non-use.

For situations where natural physical features always prevented the use of a water right as described in the license (such as a cliff or other impassable barrier), IDWR will recommend the actual use of the licensed right, not forfeiture.

D. Decreed Rights.

Decreed water rights will be treated in the same way as licensed rights.

E. Enlargement Rights.

Enlargement water rights will be treated in the same way as beneficial use rights.

V. FORM OF RECOMMENDATIONS.

A. Form of Recommendation in Partial Forfeiture Situations.

When a right is recommended as having been partially forfeited the recommendation should indicate "The remainder of this water right was forfeited for non-use from _____ to _____."

B. Form of Recommendation in Total Forfeiture Situations.

When a right is recommended as having been totally forfeited the recommendation should indicate "This water right was forfeited for non-use from _____ to _____.

VI. DEFENSES TO FORFEITURE

If the agent preliminarily recommends that a water right has been forfeited the claimant will have the opportunity to rebut this preliminary recommendation. The claimant can, of course, show that the water right has been used during the period in question. If the water right has not been used, Idaho Code § 42-222(2) provides exceptions to the application of forfeiture as follows:

- Nonuse during a period of time when land is contracted in a federal cropland set-aside program does not count towards forfeiture.
- Nonuse of a water right held by a municipal supplier to meet reasonably anticipated future needs generally will not lead to the forfeiture of that right.
- Nonuse of a water right because land application of waste for disposal purposes satifies the need for water does not count towards forfeiture.
- Nonuse of a water right when an extension of time to avoid forfeiture has been granted by IDWR does not count towards forfeiture.

Idaho Code § 42-1764 provides that nonuse of a water right during the time when it is credited to the water supply bank does not count towards forfeiture.

Generally nonuse of a water right does not count towards forfeiture when the nonuse is involuntary either due to natural shortages or due to the acts of others. Supplemental rights are generally not subject to forfeiture.

CHAPTER 12

MISCELLANEOUS

A. APPROVAL CONDITIONS ON PERMITS, LICENSES, AND TRANSFERS

See Adjudication Memo #32 as to when and how approval conditions on permits, licenses, and transfers should be carried over into the recommendation of a claim.

B. SPLIT RIGHTS, SPLITS ADD UP TO MORE THAN ORIGINAL RIGHT

The general rule governing transfers of water rights is that the water right passes with the land unless the deed specifically states otherwise, or unless a contrary MUTUAL intent is clearly demonstrated. (The most typical example of a clearly demonstrated contrary mutual intent is where the contract makes specific provisions as to water rights that are not repeated in the deed. There may be others.) This is known as the silent deed rule.

Where the water rights are split by conveyance to different owners, then the general rule is that the water right is divided up in the same proportion as the land. There are two exceptions to this rule. The first exception is where the deed conveying the land expressly states how the water right will be divided. The second exception that may exist is where a specific portion of the water right is appurtenant to a specific portion of the tract of land. An example of the second exception is where there is a 40 acre tract with an irrigation right for the entire tract plus an additional amount for one house. The owner conveys 20 acres plus the house to one person, and the other 20 acres to another person. The first person gets the domestic portion, and two split the irrigation portion equally.

First, determine if each claim from the original right is consistent with the general rule that the water right is divided in the same proportion as the land division. If not, document the discrepancy in the file. The agent should conduct a field exam of the claim and discuss the discrepancy with the claimant.

The claimant should be told that IDWR will recommend the claimant's portion of the water right proportionally with the claimant's portion of the land division, unless the claimant submits evidence that the claimant is entitled to a greater proportion. If the claimant submits evidence that the claimant is entitled to a greater portion of the original right, then the claim should be referred for further review by legal staff. If the claimant acquired a greater portion of the original water right, then the recommendation of this claim and the other splits should be modified accordingly. If not, then the portion of the claim that is not consistent with the proportion of the land the claimant owns should be evaluated to determine if a different water right is applicable.

C. DUPLICATE CLAIMS

This section refers to the situation where two or more claimants file different claims to the same right, and it isn't a split.

The first task is to find out if they are in fact duplicate claims. In some instances we have received duplicate claims not because the claimants are contesting who owns the right, but because they are co-claimants who did not know who should file, so they both did. Claimant contact should be made for both claims, which says: we have these claims filed for the same right by these persons: we're sending letters to both/all of you; would one of you like to withdraw the claim and get your money back (and leave the claim in the other claimant's name, or have the other claimant file an amended claim to include your name), or are you contesting ownership with these other people?

If a duplicate claim is withdrawn, then there is no problem. If the claimant is contesting ownership, then the claimant needs to submit evidence that the claimant does in fact own the water right claimed. Contested ownership issues should be submitted to legal staff for review.

When duplicate claims are filed, and it is determined that one claim should be recommended for disallowal on the basis that the right is owned by another claimant, then the claim that is disallowed should include the following remark: "RECOMMENDED AS RIGHT NO. _____." (P06 and condition P06.)

When duplicate claims for water rights on state land are filed by the state and the lessee of lands leased from the state, the contact described above should be made to the lessee only. (It is already known that the state plans to file claims for all water rights on state lands). If the lessee does not withdraw the claim, then the lessee should be recommended as a current owner on the state's claim. The lessee's name should appear on the recommendation of the state's claim in the following form: JOHN SMITH, LESSEE. The lessee's individual claim should be recommended for disallowal, with the remark and condition described above.

When duplicate claims are filed by the United States and another entity for water rights on lands leased from the United States by the other entity, then the claimant contact described above should be made to the other entity only. (It is already known that the United States plans to file claims for all water rights on federal lands.) If the other entity does not withdraw the claim, then the claim should be referred to the bureau chief for further review.

In all other instances where duplicate claims are filed by the owner and a lessee of the owner's lands, then the claimant contact described above should be made, and the claimant contact should further state that if the claim is not withdrawn, then the claimant must submit a copy of the lease agreement. The claim should then be referred to legal staff for further review.

CLAIM INVESTIGATION HANDBOOK: CLAIMANT CONTACT CHECKLIST

Name and Address

___ Change in address/ownership (#1)

Priority

Claim based on decree

___ More recent adjudication (#3)
___ Priority claimed later than decreed priority (#2)

Claim based on license

___ Prior adjudication (#3) (See also #27, which combines #2 and #3; and #25 which combines of #3 and #4.)
___ Priority claimed earlier than licensed priority (#4)
___ Priority claimed later than licensed priority (#2)

Claim based on permit

___ Permit lapsed (#5)
___ Priority claimed earlier than permit proposed priority (#4)
___ Priority claimed later than permit proposed priority (#2)

Claim based on beneficial use

___ Prior adjudication (#3)

Claim based on posted notice

___ Prior adjudication (#6) (If #6 is checked, then #7 or #8 must also be checked. #6 is a combination letter than includes alternate language for #7 and #8.)
___ Priority date claimed same as or earlier than date of posting (#7)
___ Priority date claimed later than date of posting (#8)

Source

Claim based on decree or license

___ Date of change (#9)

Claim based on beneficial use

___ No change/date of change (#9)

Point of diversion

Claim based on decree or license

___ Date of change (#9)

Claim based on beneficial use

___ No change/date of change (#9)

Nature of Use, Amount of each NU, and Total Amount

Claim based on decree or license

___ Amount claimed greater than amount decreed (#10)
___ Additional NU claimed (#11)
___ NU or amount underclaimed (#12)
___ Claim based on older decree, NU not stated in decree (#13)
___ Date of change (#14)
___ Verify change (#15)
___ Injury from change (#16)

Claim based on permit

___ Amount claimed greater than amount of permit (#10)
___ Additional NU claimed (#11)
___ NU or amount underclaimed (#12)

Claim based on beneficial use

___ Verify current use (#17)
___ Unclaimed verified NU(s) or amounts (#18)
___ Reasonableness of verified use (#19)
___ Increase in total amount (#20)
___ No change/date of change (#14)
___ Injury from change (#16)

Place of Use

Claim based on decree or license

___ Verify change (#21)
___ Date of change (#22)
___ Injury from change (#23)

Claim based on beneficial use

___ Verify current use (#17)
___ Unclaimed verified PU (#18)
___ No change/date of change (#22)
___ Injury from change (#23)

Total or Partial Forfeiture

___ No nonuse/resumption of use (#24)

GENERAL

Each letter should include the claim number(s) and the response due date in the caption.

If the notice of claim shows an attorney, then the claimant contact letter should be addressed to the attorney, and should identify the name of the claimant as well as the claim number. If the letter is addressed to an attorney, then everywhere the text says "you" or "your" should be changed to say "your client" or "your client's."

Each letter should include a closing stating whom the claimant should call for further information.

Some of the letters cover several types of claimant contact, and contain material in brackets which indicates some type of editing is required. The material in brackets is either instructions to the person preparing the letter as to which of the following paragraphs should be included, or indicates alternate language, one of which should be included and the other deleted.

CHANGE IN ADDRESS/OWNERSHIP Letter No. 1

IDWR records currently show the following name and address for the claimant of the Notice(s) of Claim(s) listed above:

If the address shown is incorrect, then please complete the enclosed change in address form and return it to this office. If there has been a change in the owner of the water right(s) claimed in the Notice(s) of Claim(s), then please complete the enclosed change in ownership form and return it to this office.

Your response must be received by this office by the response date shown above. If proper notice of a change in address or ownership is not received, then all legal notices that IDWR is required by law to be mailed to the claimant of the Notice(s) of Claim(s) will be sent to the name and address currently shown by IDWR records, and this notice will be deemed legally sufficient.

[This letter may need to be modified where a change in address/ownership form has been provided but is for some reason inadequate, to identify the inadequacy and how it should be remedied.]

PRIORITY

Letter No. 2

Claim based on decree, license or permit, priority claimed later than decreed, licensed, or proposed permit priority

The priority date claimed on the Notice of Claim listed above is:

IDWR records currently show the following as the [decreed] [licensed] [proposed permit] priority date for the water right claimed in the Notice of Claim listed above:

You may amend your Notice of Claim to claim the earlier, [decreed] [licensed] [proposed permit] priority date. A computer generated copy of your Notice of Claim is enclosed, which is the same as your original Notice of Claim except that the priority date has been changed to show the earlier, [decreed] [licensed] [proposed permit] priority date. If you wish to amend your Notice of Claim, then sign the enclosed form, have your signature notarized, and return it to this office. (Please note that the requirements for signature of an amended claim are the same as for the original claim.)

Your response must be received by this office by the response date shown above. If you do not amend your Notice of Claim, then you may be deemed to have waived the right to claim the earlier, [decreed] [licensed] [proposed permit] priority date.

PRIORITY

Letter No. 3

Claim based on decree, more recent adjudication; claim based on license, older license or beneficial use, more recent adjudication

[If the claim is based on decree, then include the following paragraph.]

Water rights from the source claimed in the Notice of Claim listed above were adjudicated in the following case after the decree listed as the basis for the Notice of Claim:

[If the claim is based on license or beneficial use, then include the following paragraph.]

Water rights from the source claimed in the Notice of Claim listed above were adjudicated in the following case after the priority date claimed in the Notice of Claim:

[For all letters, state name of case, name of court, civil number if there is one, and date of decree.]

To establish the priority date claimed in the Notice of Claim, you must submit evidence showing that the owner of the water right at the time of the case listed above was not joined as a party in the case, or that the water right was not required to be claimed in the case.

[If the water right could still be recommended based on beneficial use even if the claimant is bound by the later decree, then include the following paragraph, and enclose a proof of beneficial use priority brochure.]

If you do not submit such evidence, then your Notice of Claim will be treated as claiming a water right based on beneficial use with a priority date after the cut-off date for claiming rights in the case listed above. To establish a priority date for a claim based on beneficial use, you must submit some evidence tending to show the earliest date the water right was actually used. A brochure describing the types of evidence that can be submitted for this purpose is enclosed.

[In all letters, include the following paragraph.]

Your response must be received by this office by the response date shown above. If no response is received, then your claim will be recommended for disallowal on the basis that it was lost when it was not claimed in the later adjudication.

PRIORITY

Letter No. 4

Claim based on license or permit, priority claimed earlier than licensed or proposed permit priority

The priority date claimed on the Notice of Claim listed above is:

IDWR records currently show the following as the [licensed] [proposed permit] priority date:

To establish a priority date earlier than the [licensed] [proposed permit] priority date, you must submit evidence of actual use of the right as of the priority date claimed (or at least as of a date earlier than the [licensed] [proposed permit] priority date).

[If the claim is to ground water, the licensed or proposed permit priority date is after the mandatory permit statute, and the right claimed is not for a small D&S use, then add the following paragraph.]

The evidence must show use before March 25, 1963, when the mandatory permit statute for ground water was enacted, or that the water right was initiated before March 25, 1963, and was completed within a reasonable time after that date.

[If the claim is to surface water, the licensed or proposed permit priority date is after the mandatory permit statute, and the right claimed is not for instream stockwater, then add the following paragraph.]

The evidence must show use before May 20, 1971, when the mandatory permit statute for surface water was enacted, or that the water right was initiated before May 20, 1971, and was completed within a reasonable time after that date.

[In all letters, include the following paragraph.]

Your response must be received by this office by the response date shown above. If such evidence is not received, then the earliest priority that may be recommended is the [licensed] [proposed permit] priority date.

PRIORITY
Permit lapsed

Letter No. 5

The Notice of Claim listed above is based on a permit that has lapsed. Before IDWR may recommend the claim, you must do one of the following:

1. Follow the statutory procedure for reinstatement of permits.
2. Submit the date the water right was first put to beneficial use, and submit evidence of actual use of the right as of the date submitted.

[If the claim is to ground water, the proposed permit priority date is after the mandatory permit statute, and the right claimed is not for a small D&S use, then add the following paragraph.]

If you choose the second option, then the evidence must show use before March 25, 1963, when the mandatory permit statute for ground water was enacted, or that the water right was initiated before March 25, 1963, and was completed within a reasonable time after that date.

[If the claim is to surface water, the proposed permit priority date is after the mandatory permit statute, and the right claimed is not for instream stockwater, then add the following paragraph.]

If you choose the second option, then the evidence must show use before May 20, 1971, when the mandatory permit statute for surface water was enacted, or that the water right was initiated before May 20, 1971, and was completed within a reasonable time after that date.

[For all letters, include the remaining text.]

If the permit is reinstated, then the claim will be recommended as a claim based on the reinstated permit. If you submit evidence of the date of first use of the water right, then your claim will be reviewed as a claim based on beneficial use, and will be recommended to the extent supported by your evidence.

Your response must be received by this office by the response date shown above. If no response is received, then your claim will be recommended for disallowal on the basis that the permit lapsed.

PRIORITY
Claim based on posted notice, prior adjudication Letter No. 6

[Whenever the claim investigation manual indicates that this type of claimant contact is required, one of the three other types of claimant contact for priority date of posted notice claims will also be required. This sample letter incorporates the text for the other posted notice/priority claimant contact.]

Water rights from the source claimed in the Notice of Claim listed above were adjudicated in the following case after the priority date claimed in the Notice of Claim:

[Show name of case, name of court, civil number if there is one, and date of decree.]

To establish the priority date of the water right claimed, you must submit the following evidence.

1. First, to establish <u>any</u> priority before the cut-off date of the decree in the case listed above, you must submit evidence showing that the owner of the water right at the time of the case listed above was not joined as a party in the case, or that the water right was not required to be claimed in the case.

[If the priority date claimed is the same as or earlier than the date of posting, then include the following part 2.]

2. If the evidence described in paragraph 1 <u>is</u> submitted (supporting a pre-decree priority date), then additional evidence must be submitted to support the specific pre-decree priority date of the claimed water right. The evidence may be either of the two following types.

a. You may submit evidence of a priority date as of the date the notice was posted. Such evidence must show completion of the water right described in the posted notice by actual use within a reasonable time following the date the notice was posted. Completion within five years is generally considered reasonable, but longer periods may be considered reasonable depending on the circumstances.

b. You may submit evidence of a priority date as of the date of beneficial use. Such evidence must tend to show the earliest date the water right was put to actual use. If such evidence is submitted, then your claim will be treated as a claim based on beneficial use. A brochure describing the types of evidence that can be submitted for this purpose is enclosed.

[If the priority date claimed is later than the date of posting, then include the following part 2.]

2. If the evidence described in paragraph 1 is submitted (supporting a pre-decree priority date), then additional evidence must be submitted to support the specific pre-decree priority date claimed. This evidence may be either of the two following types. Please note that the priority date claimed is later than the date of posting shown on the posted notice.

a. You may submit evidence of a priority date as of the date the notice was posted. Such evidence must show completion of the water right described in the posted notice by actual use within a reasonable time following the date the notice was posted. Completion within five years is generally considered reasonable, but longer periods may be considered reasonable depending on the circumstances. If you choose this option, you may wish to amend your Notice of Claim to claim the date of posting, which is earlier than the priority date claimed.

b. You may submit evidence of a priority date as of the date of beneficial use. Such evidence must tend to show the earliest date the water was put to actual use. If such evidence is submitted, then your claim will be treated as a claim based on beneficial use. A brochure describing the types of evidence that can be submitted for this purpose is enclosed.

[If the water right could still be recommended based on beneficial use even if the claimant is bound by the decree, then include the following paragraph.]

3. If the evidence described in paragraph 1 is not submitted, then your claim will be treated as a claim based on beneficial use with a priority date after the cut-off date for claiming rights in the case listed above. Some evidence must still be submitted tending to show the earliest date the water right was actually used.

[In all letters, include the following paragraph.]

Your response must be received by this office by the response date shown above. If no response is received, then your claim will be recommended for disallowal for lack of proof of priority date.

PRIORITY

Letter No. 7

Claim based on posted notice, priority claimed same as or earlier than date of posting

The Notice of Claim listed above is based on a posted notice. To establish the priority date of the water right claimed, you must submit one of two types of evidence.

First, you may submit evidence of a priority date as of the date the notice was posted. Such evidence must show completion of the water right described in the posted notice by actual use within a reasonable time following the date the notice was posted. Completion within five years is generally considered reasonable, but longer periods may be considered reasonable depending on the circumstances.

Second, you may submit evidence of a priority date as of the date of beneficial use. Such evidence must tend to show the earliest date the water right was put to actual use. If such evidence is submitted, then your claim will be treated as a claim based on beneficial use. A brochure describing the types of evidence that can be submitted for this purpose is enclosed.

Your response must be received by this office by the response date shown above. If no response is received, then your claim will be recommended for disallowal for lack of proof of priority date.

PRIORITY Letter No. 8

Claim based on posted notice, priority claimed later than date of posting

The Notice of Claim listed above is based on a posted notice, and claims a priority date later than the date of posting shown on the posted notice. To establish the priority date of the water right claimed, you must submit one of two types of evidence.

First, you may submit evidence of a priority date as of the date the notice was posted. Such evidence must show completion of the water right described in the posted notice by actual use within a reasonable time following the date the notice was posted. Completion within five years is generally considered reasonable, but longer periods may be considered reasonable depending on the circumstances. If you choose this option, you may wish to amend your Notice of Claim to claim the date of posting, which is earlier than the priority date claimed.

Second, you may submit evidence of a priority date as of the date of beneficial use. Such evidence must tend to show the earliest date the water was put to actual use. If such evidence is submitted, then your claim will be treated as a claim based on beneficial use. A brochure describing the types of evidence that can be submitted for this purpose is enclosed.

Your response must be received by this office by the response date shown above. If no response is received, then your claim will be recommended for disallowal for lack of proof of priority date.

SOURCE AND PD Letter No. 9

Claim based on decree or license, date of change;
Claim based on beneficial use, no change/date of change

IDWR's initial investigation of the Notice of Claim listed above indicates that there has been a change in [source] [point of diversion] as described below:

[Previous source:
New source:]

[Previous point(s) of diversion:
New point(s) of diversion:]

A water right owner who has made a change in use of a water right prior to commencement of the SRBA without prior IDWR approval may claim the change in the SRBA. IDWR may recommend a right as changed, however, only if the change meets certain requirements. One of those requirements is that the change not result in injury to other water rights, or that the change be conditioned to prevent injury to other water rights.

[If the claim is based on a decree or license, then include the following paragraph.]

Before IDWR may recommend your claim, you must provide IDWR with the date the change was made and some evidence tending to support that date. If the change was made before November 19, 1987, then the date provided must include the month, day and year. If the change was made after November 19, 1987, then a specific date is not necessary, and the evidence need only support that the change occurred sometime after November 19, 1987. An information sheet is enclosed that describes the types of evidence that can be submitted for showing the date of the change.

[If the claim is based on beneficial use, then include the following paragraph.]

Before IDWR may recommend your claim, you either must provide IDWR with evidence that there has been no change (that the current [source] [point of diversion] is the original [source] [point of diversion]), or you must provide IDWR with the date the change was made and some evidence tending to support that date. If the change was made before November 19, 1987, then the date provided must include the month, day and year. If the change was made after November 19, 1987, then a specific date is not necessary, and the evidence need only support that the change occurred sometime after November 19, 1987. An information sheet is enclosed that describes the types of evidence that can be submitted for showing the date of the change.

[For all letters, include the following paragraph.]

Your response must be received by this office by the response date shown above. If no response is received, then your claim to water from the new [source] [point of diversion] will not be recommended to be decreed.

NU AND AMOUNT Letter No. 10
Claim based on decree, license, or permit, amount claimed greater than amount decreed, licensed, or permitted

IDWR's initial investigation of the Notice of Claim listed above indicates that the amount claimed is greater than the amount shown by the [decree] [license] [permit] on which the claim is based.

Amount claimed:
[Decreed] [Licensed] [Permitted] amount:
Additional amount claimed in excess of [decreed] [licensed] [permitted] amount:

A separate notice of claim must be filed for the additional amount, and the appropriate filing fee must be paid. A notice of claim form and instructions for filing a notice of claim are enclosed.

Your notice of claim for the additional amount must be received by this office by the response date shown above. If an additional notice of claim is not received, then the additional amount will not be recommended to be decreed.

NU AND AMOUNT Letter No. 11
Claim based on decree, license, or permit; additional NU claimed

IDWR's initial investigation of the Notice of Claim listed above indicates that a purpose of use was claimed that is in addition to the purpose(s) of use shown on the [decree] [license] [permit].

Claimed and [decreed] [licensed] [permitted] purpose(s) of use:

Additional purpose(s) of use not shown on [decree] [license] [permit]: [include amount for each PU]

A separate notice of claim must be filed for the additional purpose(s) of use, and the appropriate filing fee must be paid. A notice of claim form and instructions for filing a notice of claim are enclosed.

Your notice of claim for the additional purposes of use must be received by this office by the response date shown above. If an additional notice of claim is not received, then the additional purpose(s) of use will not be recommended to be decreed.

NU AND AMOUNT
Claim based on decree, license, or permit, NU or amount underclaimed

Letter No. 12

IDWR's initial investigation of the Notice of Claim listed above indicates that you might not have fully claimed the water right described in the [decree] [license] [permit] upon which the claim is based. If you believe that you have not fully claimed all of the purposes of use for your water right, the amount of water for any purpose of use, or the total amount of water, then you may amend your claim to fully claim the right as it was [decreed] [licensed] [permitted]. (An additional filing fee may be required in some circumstances.)

A computer-generated copy of your Notice of Claim is enclosed. If you wish to amend your claim, simply write in any changes in the appropriate spaces, initial the changes, sign the form and have your signature notarized, and return the claim to this office. (The requirements for signature of an amended claim are the same as for the original claim.)

Your response must be received by this office by the response date shown above. If you do not amend your Notice of Claim, then you may be deemed to have waived the right to claim any amount or purpose(s) of use that were not claimed in your original Notice of Claim.

[If it is clear what the claimant should be claiming - there is no issue as to a split water right or a change in use - then a notice of claim with the appropriate changes may be prepared, in which case the letter should be modified accordingly (the filing fee should be stated in the letter). The first paragraph of the letter may also be modified to indicate more clearly to the claimant in what respect the water right might be underclaimed.]

NU AND AMOUNT
Claim based on older decree, NU not stated in decree

Letter No. 13

The Notice of Claim listed above is based on a decree; however, IDWR's initial investigation of the claim indicates that there is no specific support in the decree for the following claimed purpose(s) of use:

To support a claim to the purpose(s) of use listed above, you must submit one of the following types of evidence.

1. To establish that the purpose(s) of use listed above are part of the original, decreed purposes of use, you must submit documents from the record of the case or other evidence showing

that the purpose(s) of use listed above were uses made at the time of the decree.

[If the NUs listed can be considered a change in use of the original right, then include the following paragraph 2. If the Pus listed can be considered a change in use of stored water, then the claimant need only show that the listed Nus were made prior to November 19, 1987, and the letter should be modified accordingly.]

2. If such evidence is not submitted, IDWR may treat the purpose(s) of use listed above as a change in use of the water right, which IDWR may recommend if the change meets certain requirements. One of the requirements is that the change must have occurred prior to November 19, 1987; another requirement is that the change must not result in injury to other water rights. Before IDWR may recommend the purpose(s) of use listed above as a change in purpose of use, you must provide IDWR with the date the change was made and submit some evidence tending to support that date. If the change was made before November 19, 1987, then the date provided must include the month, day and year. If the change was made after November 19, 1987, then a specific date is not necessary, and the evidence need only support that the change occurred sometime after November 19, 1987. An information sheet is enclosed that describes the types of evidence that can be submitted for showing the date of the change.

[If the PUs listed above are additional NUs, then include the following paragraph 2.]

2. If such evidence is not submitted, then a separate notice of claim must be filed, the purposes of use listed separate notice accompanied by the appropriate filing fee. A notice of claim form and instructions for filing a notice of claim are enclosed.

[For all letters, include the following paragraph.]

Your response must be received by this office by the response date shown above. If no response is received, then the purposes of use listed above (and the amount of water claimed for those purposes of use) will not be recommended to be decreed.

NU AND AMOUNT
Claim based on decree or license, date of change;
Claim based on beneficial use, no change/date of change

Letter No. 14

IDWR's initial investigation of the Notice of Claim listed above indicates that there has been a change in purpose of use of the claimed water right from the previous purpose(s) of use to the new purpose(s) of use listed below.

New purpose(s) of use:

A water right owner who has made a change in use of a water right prior to commencement of the SRBA without obtaining IDWR approval may claim the change in the SRBA. IDWR may recommend the right as changed, however, only if the change meets certain requirements. One of those requirements is that the change not result in injury to other water rights, or that the change be conditioned to prevent injury to other water rights.

[If the claim is based on a decree or license, then include the following paragraph.]

Before IDWR may recommend your claim, you must provide IDWR with the date the change was made and some evidence tending to support that date. If the change was made before November 19, 1987, then the date provided must include the month, day and year. If the change was made after November 19, 1987, then a specific date is not necessary, and the evidence need only support that the change occurred sometime after November 19, 1987. An information sheet is enclosed that describes the types of evidence that can be submitted for showing the date of the change.

[If the claim is based on beneficial use, then include the following paragraph.]

Before IDWR may recommend your claim, you must either provide IDWR with evidence that there has been no change (that the claimed purpose(s) of use were the original purpose(s) of use), or provide IDWR with the date the change was made and some evidence tending to support that date. If the change was made before November 19, 1987, then the date provided must include the month, day and year. If the change was made after November 19, 1987, then a specific date is not necessary, and the evidence need only support that the change occurred sometime after November 19, 1987. An information sheet is enclosed that describes the types of evidence that can be submitted for showing the date of the change.

[For all letters, include the following paragraph.]

Your response must be received by this office by the response date shown above. If no response is received, then the purpose(s)

of use listed above (and the amount of water for those purpose(s) of use) will not be recommended to be decreed.

[If the listed PUs can be considered a change in use of stored water, then the claimant need only submit evidence that the change occurred prior to November 19, 1987, and the letter should be modified accordingly.]

NU AND AMOUNT Letter No. 15
Claim based on decree or license, verify change

The Notice of Claim listed above claims a change in the purpose of use of the water right, but IDWR has so far been unable to verify the amounts of water for each of the new purpose(s) of use listed below.

[Unverified] [Partially unverified] new purpose of use:
Amount claimed:
Amount verified:

To establish the amount and purpose(s) of use of the water right claimed, you must submit evidence of use of the amount of water claimed for each purpose of use listed above.

Your response must be received by this office by the response date shown above. If no response is received, then the unverified new purpose(s) of use will not be recommended to be decreed. [Lack of verification of a claimed change may or may not result in a reduction of the total amount of water to be recommended, so be careful in modifying the wording of this paragraph.]

NU AND AMOUNT
Injury from change

Letter No. 16

IDWR's initial investigation of the Notice of Claim listed above indicates that there has been a change in purpose of use of the claimed water right from the previous purpose(s) of use to the claimed purpose(s) of use listed below:

Previous purpose(s) of use:
New purpose(s) of use:

A water right owner who has made a change in use of a water right prior to commencement of the SRBA without obtaining IDWR approval may claim the change in the SRBA. IDWR may recommend a right as changed, however, only if the change meets certain requirements.

Before IDWR may recommend the change in purpose of use claimed in the Notice of Claim listed above, you must submit evidence that the change will not result in injury to other water rights, or that the change can be conditioned to avoid injury to other water rights.

Your response must be received by this office by the response date shown above. If no response is received, then the earliest priority date that can be recommended for the new purpose(s) of use listed above is the date the change was made, to prevent injury to other water rights.

[This letter should not be needed unless the claimant has responded to the first letter asking for the date of the change. This is not included in the date of change letter because it may not be known that the second letter is needed until the first letter is answered. If it is known that evidence of no injury will be necessary before the date of change information is sought, then this letter should be combined with the date of change letter.]

NU AND AMOUNT, PU Letter No. 17
Claim based on beneficial use, verify current use

[If current use is partially unverified, use the following text.]

IDWR has investigated the Notice of Claim listed above. IDWR has so far been unable to verify the [amount] [purpose(s) of use] [place(s) of use] listed below.

Amount claimed:
Amount unverified:
Unverified purpose(s) of use:
Unverified place(s) of use:
[Where there are multiple purposes of use, for which the amount or place of use is unverified or partially unverified, then the amounts and places of use should be separately listed for each purpose of use.] [If the place of use is partially verified, then the unverified portion should be stated. Example: Irrigation, acreage in excess of 34 acres in NWSW Section 21.]

To establish the [amount] [purpose(s) of use] [place(s) of use] of the water right claimed, you must submit persuasive evidence of use of the unverified portions of your claim listed above.

Your response must be received by this office by the response date shown above. If no response is received, then the unverified portion of your claim will not be recommended to be decreed. [Lack of verification of a claimed NU or PU may or may not result in reduction of the total amount of water to be recommended, so be careful in modifying the wording of this paragraph.]

[If the claim is wholly unverified, use the following text.]

IDWR has investigated the Notice of Claim listed above, but so far has been unable to verify the any of the use(s) claimed. To establish the existence of the right, you must submit persuasive evidence of the use(s) claimed.

Your response must be received by this office by the response date shown above. If no response is received, then your claim will be recommended for disallowal on the basis that no beneficial use was found.

NU AND AMOUNT, PU
Unclaimed verified NU(s) or amounts; unclaimed verified PU

Letter No. 18

IDWR has investigated the Notice of Claim listed above, and the following [unclaimed use(s)] [partially claimed use(s)] [unclaimed place(s) of use] were discovered:

[Unclaimed purpose(s) of use:]

[Partially unclaimed purpose(s) of use:]

[Purpose of use:
Unclaimed place of use:]

In order to confirm or establish a right to continue the unclaimed [uses] [place(s) of use], you may want to do one of the following:

1. Amend your Notice of Claim,
2. File an additional Notice of Claim,
3. File an application for permit, or
4. File an application for change in use.

Which of these actions is the most appropriate means to conform or establish a right to continue the unclaimed uses will depend on the nature of your existing right(s) and the date when the unclaimed uses were initiated.

If you wish to confirm or establish a right to continue the unclaimed uses, please contact this office for further information by the response date shown above. Although an application for permit or change in use may be filed at any time, an amended claim or an additional claim must be filed promptly for the use(s) listed above to be considered by IDWR and included in the Director's recommendations to the district court.

NU AND AMOUNT Letter No. 19
Claim based on beneficial use, reasonableness of verified use

The Notice of Claim listed above states that it is based on beneficial use. Two of the requirements that must be met before IDWR may recommend the amount of water claimed are: 1) there must be actual use of the amount claimed, and 2) the amount claimed must be reasonable for the purpose for which it is used. The initial investigation of the claim indicates that the following amount(s) claimed is greater than the amount reasonably required for the purpose for which it is claimed.

Purpose of use	Amount claimed	Reasonable amount after initial exam

To establish the amount of water for the purpose(s) of use listed above, you must submit evidence showing that each amount listed above is reasonable for the purpose for which it is claimed.

[If the purpose of use is irrigation, please see the forms developed for excessive flow analysis.]

[add paragraph]

Your response must be received by this office by the response date shown above. If no response is received, then IDWR will not recommend an amount to be decreed that is in excess of the amount in the right column above.

NU AND AMOUNT Letter No. 20
Claim based on beneficial use, increase in total amount

IDWR's initial investigation of the Notice of Claim listed above indicates that there has been an increase in the total amount of water used since the priority date claimed in the Notice of Claim, as shown below:

Amount claimed:
Priority date claimed:
Amount originally used:

To establish a right to the amount claimed, you must do one of the following.

1. To establish a right to the amount claimed with the priority date claimed, you must submit evidence showing that the amount claimed was the amount put to beneficial use at the time of the priority date claimed.

2. In the alternative, you may file a separate notice of claim for the amount in excess of the amount originally used, with a priority as of the date the increase in amount occurred. The notice of claim must be accompanied by the appropriate filing fee, and you will be required to submit some evidence tending to support the priority date claimed.

Your response must be received by this office by the response date shown above. If no response is received, then the amount in excess of the amount originally used will not be recommended to be decreed.

PU Letter No. 21

Claim based on decree or license, verify change

The Notice of Claim listed above claims a change in place of use of the water right, but IDWR has so far been unable to verify the new place(s) of use for the purpose(s) of use listed below.

Claimed purpose of use:
Unverified place of use:
[If place of use is partially verified (particularly with irrigation claims, then the unverified portion should be stated. Example: Irrigation, acreage in excess of 34 acres in NWSW section 21.]

To establish the place(s) of use of the claimed water right, you must submit evidence of use of water for the purpose claimed at the place(s) of use listed above.

Your response must be received by this office by the response date shown above. If no response is received, then the unverified portions of your claim will not be recommended to be decreed. [Lack of verification of a claimed PU may or may not result in reduction of the total amount of water to be recommended, so be careful in modifying the wording of this paragraph.]

PU Letter No. 22
Claim based on decree or license, date of change;
Claim based on beneficial use, no change/date of change

IDWR's initial investigation of the Notice of Claim listed above indicates that there has been an change in place of use of the water right, to the new place(s) of use for the purposes of use listed below.

Purpose of use:
New place of use: [Where only a portion of the place of use is new, list only the new portion.]

A water right owner who has made a change in use of a water right prior to commencement of the SRBA without obtaining IDWR approval may claim the change in the SRBA. IDWR may recommend a right as changed, however, only if the change meets certain requirements. One of those requirements is that the change not result in injury to other water rights.

[If the claim is based on a decree or license, then include the following paragraph.]

Before IDWR may recommend your claim, you must provide IDWR with the date the change was made and submit some evidence tending to support that date. If the change was made before November 19, 1987, then the date provided must include the month, day and year. If the change was made after November 19, 1987, then a specific date is not necessary, and the evidence need only support that the change occurred sometime after November 19, 1987. An information sheet is enclosed that describes the types of evidence that can be submitted for showing the date of the change.

[If the claim is based on beneficial use, then include the following paragraph.]

Before IDWR may recommend your claim, you must either provide IDWR with evidence that there has been no change (that the claimed place(s) of use were the original place(s) of use), or provide IDWR with the date the change was made and some evidence tending to support that date. If the change was made before November 19, 1987, then the date provided must include the month, day and year. If the change was made after November 19, 1987, then a specific date is not necessary, and the evidence need only support that the change occurred sometime after November 19, 1987. An information sheet is enclosed that describes the types of evidence that can be submitted for showing the date of the change.

[For all letters, include the following paragraph.]

Your response must be received by this office by the response date shown above. If no response is received, then your claim to

water for the new place(s) of use will not be recommended to be decreed. [Lack of verification of a claimed change may or may not result in a reduction of the total amount of water to be recommended, so be careful in modifying the wording of this paragraph.]

[If the claim is for an expansion in irrigated acreage of a decreed right under the first presumption, or a change in place of use of stored water, then the claimant need only show that the change occurred before November 19, 1987, and the letter should be modified accordingly.]

PU
Injury from change

Letter No. 23

IDWR's initial investigation of the Notice of Claim listed above indicates that the claim includes a change in place of use from the previous place(s) of use to the new place(s) of use [for the purpose(s) of use] shown below.

[Purpose of use:]
Original place of use:
New place of use:

[If the place of use was changed only for some of the purpose(s) of use, then include the bracketed text above. If the claimed right was supplemental at the previous place of use and was moved without the other rights at the previous place of use, then include the bracketed text below.]

[In addition, IDWR's initial investigation indicates that the Notice of Claim listed above is for a right that was supplemental to another right at the previous place of use, but the other right was not moved along with the right claimed in the Notice of Claim listed above.]

A water right owner who has made a change in use of a water right prior to commencement of the SRBA may claim the change in the SRBA. IDWR may recommend the right as changed, however, only if the change meets certain requirements.

Before IDWR may recommend the change in place(s) of use listed above, you must submit evidence that the change not result in injury to other water rights, or that the change can be conditioned to prevent injury to other water rights. [In particular, this evidence must show that moving the water right claimed in the Notice of Claim listed above without the other rights used at the previous place of use did not result in an enlargement of either right, or that the rights can be conditioned to prevent an enlargement in use of either right.]

Your response must be received by this office by the response date shown above. If no response is received, then the earliest priority date that may be recommended for the water claimed for the new place(s) of use listed above will be the date the change was made, to prevent injury to other water rights.

FORFEITURE
Resumption of use

Letter No. 24

IDWR's initial investigation of the Notice of Claim listed above indicates that [the water right] [the following portion of the water right] claimed was not used during the following period.

[Portion not used:]
Period of nonuse:

Under Idaho law, [a water right] [a portion of a water right] may be forfeited by five years continuous nonuse. The use of water may be resumed under some circumstances, but resumption of use after forfeiture will sometimes result in a change in the priority date of the water right to the date use was resumed.

Before IDWR may recommend [the claim] [the portion of your claim] listed above, you must submit one of two types of evidence. First, you may submit evidence showing use of the water during the period listed above. Such evidence must show use frequent enough to leave no five year period of nonuse. Second, you may provide IDWR with the date of resumption (including month, day and year) and submit some evidence tending to support that date.

Your response must be received by this office by the response date shown above. [For total forfeiture, add the following sentence: If no response is received, then your claim will be recommended for disallowal on the basis that the water right was forfeited by nonuse.] [For partial forfeiture, add the following sentence: If no response is received, then the portion of your claim listed above will not be recommended to be decreed.]

PRIORITY - COMBINATION Letter No. 25
Claim based on older license, prior adjudication; and priority claimed earlier than licensed priority

Water rights from the source claimed in the Notice of Claim listed above were adjudicated in the following case after the priority date claimed in the Notice of Claim.

[Show name of case, name of court, civil number if there is one, and date of decree.]

To establish the priority date of the water right claimed, you must submit the following evidence.

1. First, in order to establish any priority before the cut-off date of the decree in the case listed above, you must submit evidence showing that the owner of the water right at the time of the case was not joined as a party in the case, or that the water right was not required to be claimed in the case.

2. If the evidence described in paragraph 1 is submitted (supporting a pre-decree priority date), then to establish a priority date prior to the licensed priority date, you must submit strong evidence of actual use of the entire right as of the priority date claimed (or at least as of a date prior to the licensed priority date).

[If the claim is to ground water, the licensed or proposed permit priority date is after the mandatory permit statute, and the right claimed is not for a small D&S use, then add the following paragraph.]

The evidence must show use before March 25, 1963, when the mandatory permit statute for ground water was enacted, or that the water right was initiated before March 25, 1963, and was completed within a reasonable time after that date.

[If the claim is to surface water, the licensed or proposed permit priority date is after the mandatory permit statute, and the right claimed is not for instream stockwater, then add the following paragraph.]

The evidence must show use before May 20, 1971, when the mandatory permit statute for surface water was enacted, or that the water right was initiated before May 20, 1971, and was completed within a reasonable time after that date.

[If both the priority claimed and the priority licensed is before the cut-off date of the prior decree, then include the following two paragraphs.]

3. If the evidence described in paragraph 1 is not submitted, then your claim will be treated as a claim based on beneficial use with a priority date after the cut-off date for claiming rights in the case listed above. Some evidence must still be submitted tending to show the earliest date the water right was actually used. A brochure describing the types of evidence that can be submitted for this purpose is enclosed.

Your response must be received by this office by the response date shown above. If no response is received, your claim will be recommended for disallowal on the basis that it was forfeited when it was not claimed in the case listed above.

[If the priority claimed is before the cut-off date of the prior decree, but the licensed priority date is not, then include the following paragraph.]

Your response must be received by this office by the response date shown above. If no response is received, then the earliest priority date that may be recommended is the licensed priority date.

PRIORITY - COMBINATION

Letter No. 26

Claim based on license, prior adjudication; and priority claimed later than licensed priority

Water rights from the source claimed in the Notice of Claim listed above were adjudicated in the following case after the priority date claimed in the Notice of Claim:

[State name of case, name of court, civil number if there is one, and date of decree.]

To establish the claimed priority date, you must submit evidence showing that the owner of the water right at the time of the case listed above was not joined as a party in the case, or that the water right was not required to be claimed in the adjudication.

Please note, however, that the priority date claimed is later than the licensed priority date currently shown by IDWR records. If the evidence described above is submitted, then you may wish to amend your Notice of Claim to show the earlier, licensed priority date. Absent an amendment to the Notice of Claim, the earlier licensed priority date may not be recommended.

[If the water right could still be claimed based on beneficial use even if the claimant is bound by the decree, then include the following two paragraphs.]

If the evidence described above is not submitted, then your Notice of Claim will be treated as claiming a water right based on beneficial use with a priority date after the cut-off date for claiming rights in the case listed above. To establish a priority date for a claim based on beneficial use, you must submit some evidence tending to show the earliest date the water right was actually used. A brochure describing the types of evidence that can be used for this purpose is enclosed.

[For all letters, include the following paragraph.]

Your response must be received by this office by the response date shown above. If no response is received, then your claim will be recommended for disallowal on the basis that it was forfeited when it was not claimed in the case listed above.

IDWR INFORMATION SHEET
EVIDENCE OF DATE OF CHANGE

If you have received a letter from the Idaho Department of Water Resources informing you that you need to provide IDWR with the date of the change in use of your water right and evidence to support that date, the information below will assist you in finding or preparing the necessary documentation.

DATE OF CHANGE: WHY IS IT IMPORTANT?

Changes in use of a water right can include, for example, a change in place of use (where the water is used on different land); a change in point of diversion (where water is diverted from the source at a different location), or a change in purpose of use (examples of different purposes of use include irrigation, aquaculture, domestic, stockwater, commercial, industrial, municipal, etc.)

A water right owner who has made a change in use of a water right prior to November 19, 1987, may claim the right as changed in the SRBA.* IDWR, however, may only recommend the right as changed if the change meets certain requirements. One of those requirements is that the change not result in injury to other water rights, or that the change be conditioned to prevent injury to other water rights. The date the change was made is needed to make the injury determination.

* A water right owner who wishes to make a change in use of the water right is required apply to IDWR and obtain approval before making the change. Where the owner made the change prior to commencement of the SRBA, without obtaining IDWR approval, the right can be claimed as changed in the Notice of Claim filed in the SRBA.

WHAT KIND OF EVIDENCE IS REQUIRED?

Some evidence is required that supports the date provided by you as the date the change was made. Documentation of the date the change was made will be sufficient if it tends to show:

1. The new use of water (diversion at the new point of diversion, use at the new place of use, or use for the new purpose of use),
2. As of the date provided by you as the date of change.

SOME EXAMPLES OF DOCUMENTS WHICH MAY BE EVIDENCE OF THE DATE OF CHANGE

These are only examples and there may be other types of documents not listed that would be acceptable.

1. Affidavits - a notarized statement of someone with personal knowledge of the change in use and when it was made. Personal knowledge means someone who observed the change in use,

PID000956

not someone who was told of it by someone else.

2. Records of the person or business who sold, installed, or constructed the new diversion works could be evidence of a change in point of diversion, and might apply to other changes in use as well.

3. For a change in point of diversion of ground water, the report of the well driller who drilled the new well.

4. For a change in place of use of irrigation claims, crop reports or aerial photography crop production on the new place of use. Information on aerial photography can be obtained from the U.S. Geological Survey at the following address:

EROS Data Center
User Services Section
Sioux Falls, SD 57198
Phone: (605) 594-6151

5. County assessor records may be useful to show a change in place of use or change in purpose of use, where the property is taxed based on the use of the property.

6. Income tax records may be useful to show a change in purpose of use where the records show income from use of water for the new purpose.

7. Other types of records or permits may be useful, such as building or health permit to show a commercial use, etc.

WHAT IF I AM UNABLE TO OBTAIN ANY OF THE EVIDENCE LIST ABOVE?

If you cannot furnish some proof such as the examples listed above, you may submit your own testimony, in the form of an affidavit (a letter signed by you and notarized), which explains your knowledge of the change, when the change was made, and the basis for your knowledge. The letter should include a statement of the claimant's personal knowledge of the change in use, but may include information the claimant obtained from others.

WHAT WILL HAPPEN IF THE DATE OF CHANGE AND SOME INFORMATION SUPPORTING THE DATE OF CHANGE ARE NOT SUBMITTED?

IDWR will not recommend the change in use, which may result in a reduction in the amount of water recommended. For example, with a change in point of diversion, IDWR will not recommend the amount of water claimed for diversion at the new point of diversion; with a change in place of use, IDWR will not recommend the amount of water claimed for use at the new place of use; and for a new purpose of use, IDWR will not recommend the amount of water claimed for the new purpose of use. IDWR cannot simply recommend the original use, since this may be a second change that could result in injury to other water rights. On the other hand, IDWR cannot recommend the change unless IDWR can make a determination that the change occurred prior to commencement of the adjudication and the change did not result in injury. The date the change was made and some evidence supporting the date is essential information.

163 - 00164

MEMO TO SRBA CLAIM FILE NO. 163 - 00167

CLAIMANT'S NAME: Franklin Ditch Co. DATE: 2-22-90

EMPLOYEE: Carter Fritschle

RE: Telcon with Bill Clayton informed me that a small portion of the Franklin Ditch Co. water is diverted from a headgate approx. 15' from the Caldwell Highline headgate. The balance of the Franklin Ditch Company's Boise River water is delivered through the Caldwell Highline Canal.

618.373
TA

REPORT

on

CANAL DELIVERIES FROM THE BOISE RIVER

and

DIFFERENT FEATURES AFFECTING THESE DELIVERIES FOR THE PERIOD APRIL 1st TO SEPTEMBER 30th, 1918, INCLUSIVE.

By

A. V. TAILMAN

Irrigation Engineer

PID000959

DEPARTMENT OF RECLAMATION
OFFICE COPY
DEPARTMENT OF RECLAMATION

REPORT

ON

CANAL DELIVERIES FROM THE BOISE RIVER

AND

DIFFERENT FEATURES AFFECTING THESE DELIVERIES FOR THE PERIOD APRIL 1st TO SEPTEMBER 30, 1918,

INCLUSIVE.

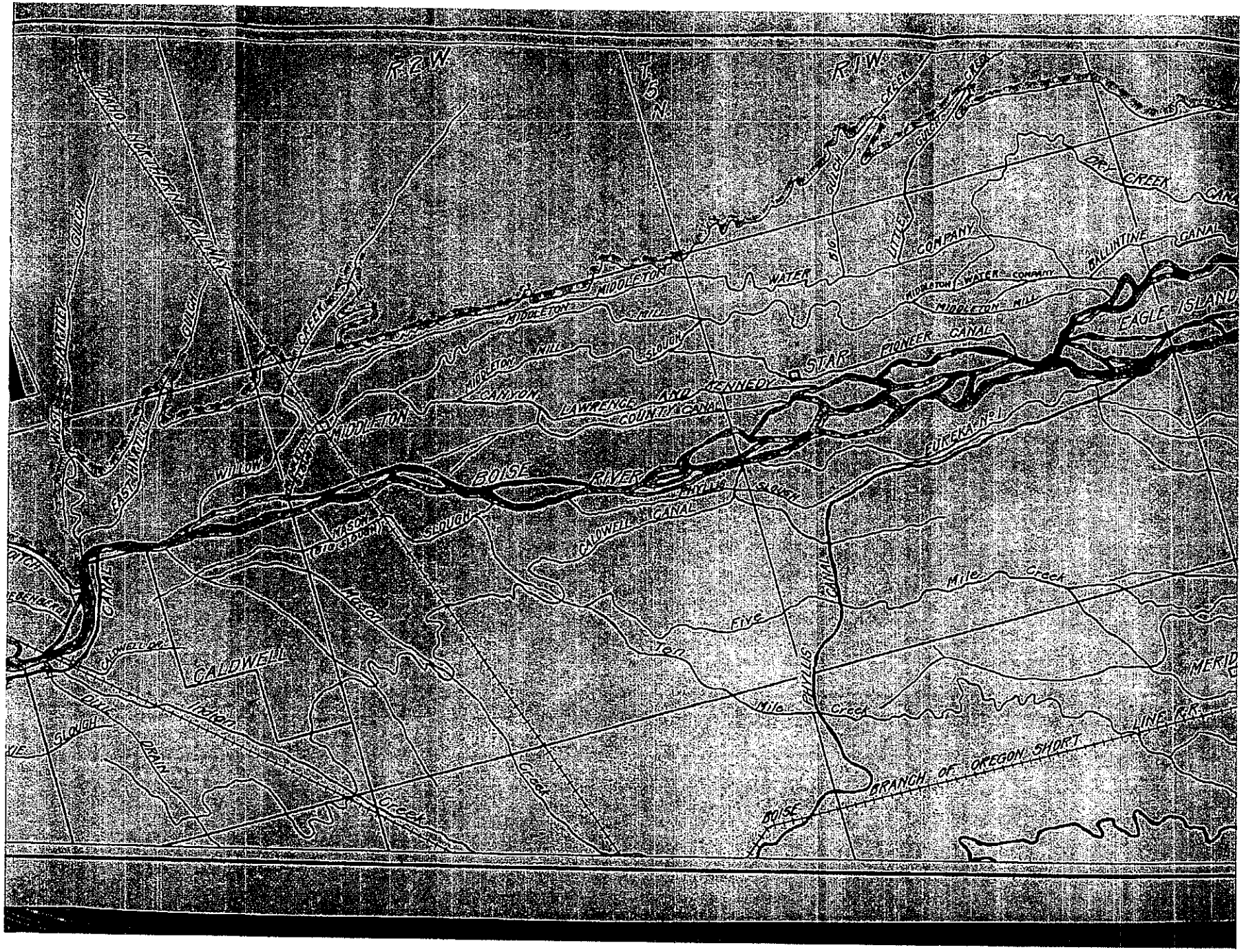
(DATA GATHERED BY THE WRITER, ACTING AS SPECIAL DEPUTY STATE ENGINEER IN CHARGE OF ARROWROCK STORAGE WATER AND WATER MASTER OF BOISE RIVER, UNDER SUPERVISION OF THE STATE ENGINEER OF IDAHO.)

BY

A. V. TALLMAN,

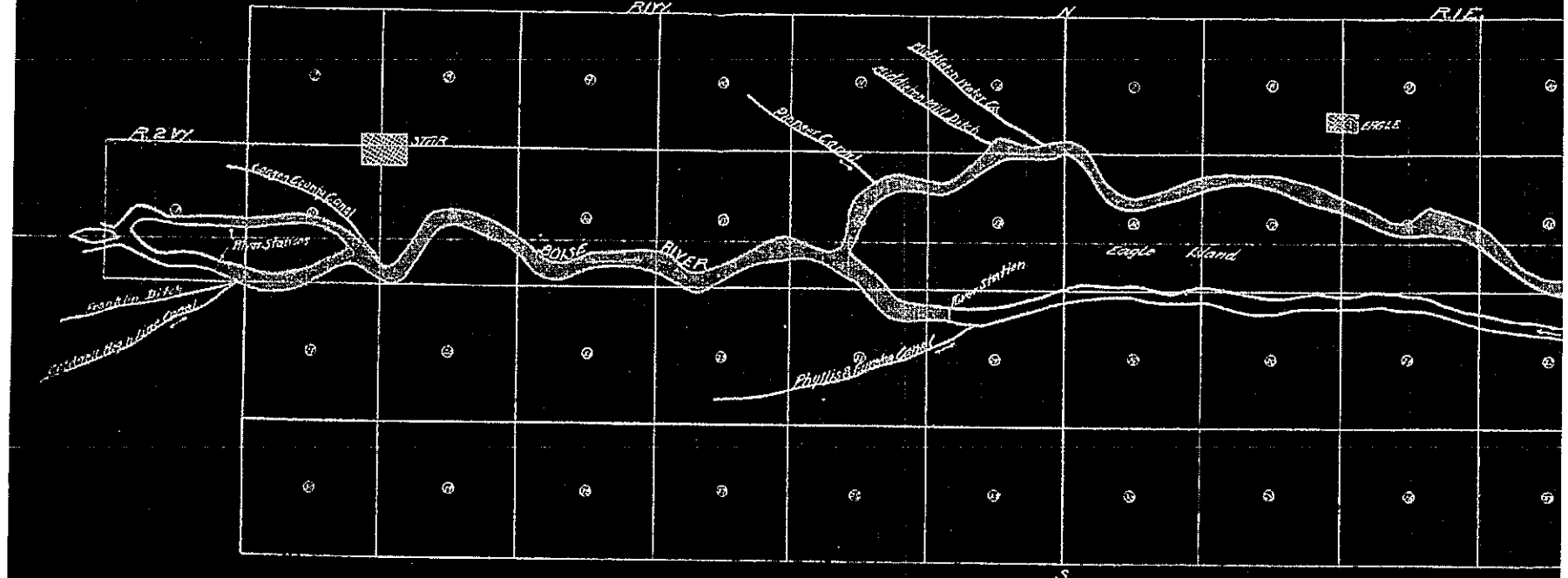
IRRIGATION ENGINEER.

PID000961


R2W
T5N
R1W
IDAHO NORTHERN RAILWAY
WEST HARTLEY GULCH
EAST HARTLEY GULCH
CREEK
MIDDLETON
MIDDLETON MILL
MIDDLETON MILL SLOUGH
WATER COMPANY
BIG GULCH
LITTLE GULCH
DRY CREEK CANAL
BALLINTINE CANAL
MIDDLETON WATER COMPANY
MIDDLETON MILL
EAGLE ISLAND
STAR
PIONEER CANAL
CANYON
LAWRENCE AND KENNEDY
COUNTY CANAL
FUREKA No 1
WILLOW
BOISE RIVER
PHYLLIS SLOUGH
CALDWELL CANAL
MASON SLOUGH
CANAL
Mason
Mile Creek
Five
Ten
Mile Creek
PHYLLIS CANAL
CALDWELL
CALDWELL DR
DIXIE DRAIN
SLOUGH
Indian
Creek
Creek
BRANCH OF OREGON SHORT LINE R.R.
BOISE
MERID

PID000962

INVESTIGATION OF TRIBUTARY AND SEEPAGE GAIN TO BOISE RIVER BETWEEN HEAD OF EAGLE ISLAND AND CALDWELL HIGH LINE CANAL ON JULY 22, 1918.



	Second Feet		
	Available water	Diversions	Net Gain
North Branch Boise River at Head Eagle Island	122.0		
South " " " below Phyllis Head Gate	25.6		
Middleton Water Co.		77.0	
Middleton Mill Ditch		58.6	
Pioneer Canal		12.3	
Canyon County Water Co.		2.0	
Caldwell High Line Canal		44.2	
Franklin Ditch		4.0	
Boise River Middle Channel below C.H.L. Canal		37.1	
Boise River below Caldwell High Line Canal		33.1	
Total	147.6	269.2	121.6

PID000963

PID000964

ADMINISTRATOR'S MEMORANDUM

Transfer Processing No. 24

To: Water Management Division Staff

From: Jeff Peppersack

RE: **TRANSFER PROCESSING POLICIES & PROCEDURES**

Date: December 21, 2009

This memorandum supersedes Transfer Processing Memorandum No. 24 dated January 21, 2009.

The purpose of this memorandum is to provide policy guidance for processing applications for transfers of water rights pursuant to Section 42-222, *Idaho Code*, and other applicable law. The revisions to the October 30, 2002 memorandum are provided to recognize statewide application of this memorandum, to clarify the guidance based on updates to statutes and Department policy, and to streamline transfer processing to reduce application processing time and existing application backlogs. These policies and procedures are to be followed until rescinded or amended, or superseded by statute or rule or court decision, to assure that applications are processed efficiently and with consistency.

Regardless of whether or not an application for transfer is protested, Section 42-222, *Idaho Code*, requires that the department evaluate whether there would be injury to other water rights, there would be an enlargement in use of the original right, the proposed use would be a beneficial use, the proposed use would be in the local public interest, the proposed use would be consistent with the conservation of water resources within the State of Idaho, and whether the proposed change would impact the agricultural base of the local area. In the case where the place of use is outside of the watershed or local area where the source of water originates, the department must also evaluate whether the change would adversely impact the local economy of the watershed or local area. The department must also evaluate the validity of the right (or part thereof) being changed and must assure that the applicant owns the right or otherwise has the authority to apply for the transfer.

1. When a Transfer is Required.

Section 42-222, *Idaho Code*, requires the holder of a water right to obtain approval from the department prior to changing: (1) the point of diversion, (2) the place of use, (3) the period of use, or (4) the nature of use of an established water right. An established water right is a licensed right, a decreed right, or a right established by diversion and beneficial use. Approval is sought by filing an application for transfer with the department. A claim in an adjudication or a statutory claim must be filed to allow a transfer application to be processed for a right based upon diversion and beneficial use.

Changes to Elements of a Water Right. An application for transfer is required if a proposed change would alter any of the four elements of the water right listed above that can be changed pursuant to Section 42-222, *Idaho Code*, as recorded with the department or by decree. Conditions or other provisions of a water right may further define or limit a recorded element of a water right; an application for transfer is required for a proposed change that could alter such a condition. For example, a proposed change of use under a water right for an industrial use, which includes a condition limiting the quantity of water that can be consumptively used, to a different industrial use that would increase the quantity of water that would be consumptively used can not be made unless enlargement is prevented.

If a proposed change has the potential to injure other rights or the potential to enlarge the right, even when there would be no change in any of the recorded elements of the right, an application for transfer should be filed to provide for evaluation of injury and enlargement issues before the change is made. For example, if the point of diversion from a fully appropriated creek is proposed to be moved where additional water would be available for diversion or if the proposed point of diversion as changed would move upstream of the points of diversion for other rights, the change can not be made unless other conditions are imposed, such as mitigation, to prevent injury.

Changes to Points of Diversion. If a point of diversion is proposed to be moved to a different tract than described as an element under an established water right, then a transfer application is required. This includes a change from one 10-acre legal subdivision to another if the point of diversion has been previously described as a 10-acre legal subdivision. An application for transfer is also required when a point of diversion is proposed to be added for a water right, even when the existing authorized point of diversion is recorded as a 10-acre legal subdivision and the additional diversion would be within the same 10-acre legal subdivision.

If a point of diversion is proposed to be moved from a tributary to a location downstream from the confluence of the tributary and the surface water stream to which the tributary is joined, then an application for transfer is required. If a point of diversion is proposed to be moved from a stream to the stream to which it is tributary at a location upstream of the confluence between them, or moved from one tributary to another tributary, an application for exchange is required pursuant to Section 42-240, *Idaho Code* rather than an application for transfer.

Changes in Place of Use. An application for transfer is required if a change in the location of use between 40-acre legal subdivisions is proposed that would result in an increase in the number of acres within a 40-acre legal subdivision or in use of water at a new 40-acre legal subdivision that is not included within the recorded place of use element for the right. An application for transfer is also required for a proposed change in location of use under a water right for irrigation to a location outside of prescribed boundaries such as those provided under Section 42-219, *Idaho Code*, with or without a proposed change in purpose of use, except for those rights held by irrigation districts or municipal providers, even when the change in location would be included within the same 40-acre legal subdivisions existing prior to the proposed change. A proposed change to any water right held for irrigation involving a change in the number of irrigated acres of less than one acre at the original place of use or at a proposed new place of use is not approvable unless the proposed change involves a new purpose of use within the original place of use or the applicant provides a verification procedure approved by the Director that can be practically administered to prevent injury or enlargement.

Consolidation of Acreage. An application for transfer is required for proposed consolidation of water use for irrigation by permanently reducing the number of acres authorized for irrigation under a water right, while maintaining the original diversion rate or annual diversion volume.

Land Application of Wastewater. An application for transfer is required for a proposed change in the place of use under a water right for uses such as industrial, dairy, or confined animal feeding operations that would allow land application of wastewater from that use or change the location of lands used for application of wastewater, when there is not a full existing water right for irrigation of the place of use receiving wastewater.[1]

Correction of Errors. An application for transfer may also be required to correct errors in licenses or decrees. For example, a transfer application may be required to correct the location of the place of use of a water right decreed by a court if the decree is later determined to be in error. However, a transfer action is not always required to correct such errors. For example, if a water right claim is determined to be in error, the claim can be amended to correct the error. Similarly, some clerical errors in a license or decree may be corrected by issuance of an amended license or decree (by the jurisdictional court) without using the transfer process. Also, a change to a description of the location of the place of use or point of diversion, as used by the department for administration of water rights, resulting from improved methodology does not require an application for transfer, as described below. In addition, conditions that are no longer applicable may be modified or removed from a license without a transfer, provided other rights are not materially affected. For decrees, conditions that are no longer applicable should be noted in comments on the department's electronic record for the right. However, a change to any element of a decreed water right requires filing an application for transfer, unless the appropriate court makes the change by amending the decree.

[1] The guidance provided here effectively revises the guidance to staff for filing an application for transfer as provided in Application Processing Memorandum No. 61 concerning wastewater from industrial uses.

2. When a Transfer is not Required.

An application for transfer is not required if a proposed change will not alter any of the elements of a water right as licensed or decreed, except that even when the recorded elements of a water right are not changed an application should be filed under such circumstances described in Section 1 above. In addition, an application for transfer is not needed when an accomplished change to a water right or an enlargement of a right has been claimed in an adjudication in accordance with the provisions of Sections 42-1425 or 42-1426, *Idaho Code.*

Changes in Consumptive Use. Consumptive use of water under a water right is not, by itself, an element of the water right subject to the requirements to file an application for transfer. Unless there is a specific condition of the water right limiting the amount of consumptive use, changes in water use under a water right for the authorized purpose of use that simply change the amount of consumptive use do not require an application for transfer provided that no element of the water right is changed. However, when determining the amount of water that can be transferred pursuant to an application for transfer proposing to change the nature or purpose of use, and for certain other circumstances as described herein, historical consumptive use is considered.

Change in Ownership. An application for transfer is not required to change the owner of record for a water right or address of record for a right holder. Changes in ownership or address are to be filed in accordance with Section 42-248, *Idaho Code*, or for adjudication claims in accordance with Section 42-1409(6), *Idaho Code*. However, a transfer application filed pursuant to Section 42-222, *Idaho Code*, accompanied by evidence documenting a change in ownership for a water right, or showing a change in the address of the owner of a water right, satisfies the requirements of Section 42-248, *Idaho Code.*

An application for transfer is not required to change the owner of record of one or more water rights, or portions thereof, that are part of a larger group of water rights authorized for use within and appurtenant to a permissible place of use[2] if the conveyance documents provide evidence of the change in ownership and appurtenance of each of the rights and if other elements of the rights will not be changed.

An application for transfer is not required to eliminate one or more points of diversion authorized under a water right through a change in ownership if the conveyance

[2] A permissible place of use is defined as a legal description of the authorized location where water may be applied under a water right for irrigation use, but the use in any year is limited to a specified number of acres which is less than the larger described location. For example, a water right may describe a permissible place of use as four 40-acre legal subdivisions totaling 160 acres, but the water right also limits the acreage that may be irrigated to 40 acres. The water right owner cannot irrigate more than 40 acres in a given year under the right. A permissible place of use is typically, but not always, irrigated by multiple rights with separate acreage limitations that, when used together, provide for irrigation of the entire permissible place of use in the same year.

documents provide evidence of the limitation and if other elements of the rights will not be changed.

Partial Relinquishment. An application for transfer is not required to relinquish a portion of a water right such as elimination of a purpose of use or a point of diversion or a reduction in acres and proportional rate. The water right owner should provide a notarized statement of relinquishment including specific identification of the water right(s) and the specific reduction(s).

Split Rights. An application for transfer is not required when a water right for irrigation is proposed to be split, with notice to the department pursuant to the provisions of Section 42-248, *Idaho Code*, such that a disproportionate per acre share of the right would be conveyed to another party provided that the resulting diversion rates do not exceed 0.02 cfs per acre, the amount of water historically applied per acre, or the amount of water diverted at a particular point of diversion, whichever is greater, for that part of the right conveyed or retained, and provided no other changes are made.

Changes to Points of Diversion within Recorded Location. An application for transfer is not required if a change in point of diversion is proposed to be moved to a location within the same legal public land survey subdivision as currently recorded on the water right and the change will not enlarge the right or injure other rights (if within a recorded legal public land survey subdivision, a transfer is required if injury is likely when moving the point of diversion to bypass another point of diversion or when moving a well significantly closer to another well or surface water source).

An application for transfer is not required for the situation described in the preceding paragraph, even when the point of diversion is described by a shapefile in the department's GIS database. The department will not initiate an enforcement action against the water right owner due to a discrepancy between the department's shape file and the physical location of use within the recorded legal subdivision if the discrepancy is limited to the situation described in the preceding paragraph. The department may update the shapefile in its GIS database from its own information or information provided by the water right owner.

Replacement of Point of Diversion. An application for transfer is not required to replace a point of diversion if the new point of diversion is constructed at the same location as described in the license or decree for the water right, and the change will not enlarge the right or injure other rights.

Refined Descriptions. An application for transfer is not required when a change in the description of the location of the point of diversion or place of use is only the result of improved methodology for referencing and displaying the location, which results in a more accurate description of the same physical location. The department will not initiate an enforcement action against the water right owner due to the discrepancy between the water right record and the referenced location if the discrepancy is created by better methodology and is not due to a change in the physical location. However, if the water right owner wishes to correct the water right record, an application for transfer

or an appropriate amendment will be required, as previously described for correction of errors.

Changes in Place of Use within Recorded Location. An application for transfer is not required if a change in the location of use within 40-acre legal subdivisions is proposed that would not result in an increase in the number of acres within any 40-acre legal subdivision nor use of water at a new 40-acre legal subdivision (except for a proposed change in location outside of prescribed boundaries such as those provided for irrigation use under Section 42-219, *Idaho Code* or by court decree, even when the change in location would be included within the same 40-acre legal subdivisions existing prior to the proposed change).

An application for transfer is not required for the situation described in the preceding paragraph, even when the place of use is described by a shapefile in the department's GIS database. The department will not initiate an enforcement action against the water right owner due to a discrepancy between the department's shape file and the physical location of use within the 40-acre legal subdivisions if the discrepancy is limited to the situation described in the preceding paragraph. The department may update the shapefile in its GIS database from its own information or information provided by the water right owner.

Generally Described Place of Use. As provided in Section 42-219, *Idaho Code*, an application for transfer is not required to change the place of use within a generally described place of use. A generally described place of use may be by court decree or as provided in Section 42-219(5) and (6). Pursuant to Section 42-219(7), any change within a generally described place of use can not result in an increase in the diversion rate, or in the total number of acres irrigated under the water right, and can not cause injury to other water rights. Any change to the boundaries of a generally described place of use requires an application for transfer, except for a municipal provider as described below or for an irrigation district where changes in boundaries must be documented by a map of the revised boundaries filed with the department in accordance with Section 43-323(2), *Idaho Code*.

Municipal Places of Use. An application for transfer is not required to change or add a place of use for "municipal purposes" within the "service area" of a "municipal provider." See Sections 42-202B and 42-222(1), *Idaho Code*, for appropriate definitions and provisions governing use of municipal water rights. The ownership of a portion of a municipal water right held by a municipal provider for reasonably anticipated future needs can be changed to a different municipal provider subject to the provisions of Section 42-248, *Idaho Code*. However, the right can not be changed to a place of use outside the service area of a municipal provider or to a new nature of use, and an application filed for such a change is to be returned and any associated application fee refunded.

In-stream Stock Watering. An application for transfer is not required to divert water away from a stream for stock watering purposes provided the diversion is added and used in conjunction with an in-stream stockwater right and provided the diversion meets

certain conditions pursuant to Section 42-113(3), *Idaho Code*. See guidance memorandum for in-stream stock diversions dated June 26, 2000, for additional information.

Intensified Use of Water. An application for transfer is not required to increase production under an authorized use of water, unless the proposed change would also result in a change to one or more of the elements of the water right(s) as licensed or decreed. For example, an application for transfer is not required to increase the number or volume of raceways in a fish propagation facility, increase the number of cows at a dairy, change irrigation to a more water consumptive crop, or increase the generating capacity of hydroelectric generators, so long as none of the elements of the associated water rights are changed.

Mitigation Through Non-Use of a Right. An application for transfer is not required to mitigate for the diversion and use of water under another right if the mitigation is accomplished through non-use of water under an existing valid water right, except under specific circumstances where a transfer is required as part of the Department's approval of the mitigation plan (see Section 42-223 (10), *Idaho Code* for reference to mitigation approvals where non-use of water may apply).

Land Application of Wastewater to Replace Existing Supply. An application for transfer is not required for a proposed change in the place of use under a water right for uses such as industrial, dairy, or confined animal feeding operations that would allow land application of wastewater from that use or change the location of lands used for application of wastewater, when there is a full existing water right for irrigation of the place of use receiving wastewater.[1]

3. Requirements for an Acceptable Application for Transfer.

The department is a public service oriented agency, and department employees traditionally have helped applicants complete transfer application forms. The existing transfer backlog, together with the increasing number and complexity of new applications for transfer, requires that staff focus their time on processing existing acceptable applications. Department employees are encouraged to provide general assistance to applicants but should refrain from completing application forms on behalf of applicants.

An applicant or qualified consultant must prepare and submit an application for transfer in accordance with the minimum requirements enumerated below to be acceptable for initiating the processing of the application by the department. An application that does not comply with these minimum requirements is to be considered incomplete and is to be returned to the applicant along with a letter or checklist identifying the deficiencies. The letter shall state that unless the application is resubmitted within 30 days of its return, the application fee will be refunded. An application for transfer that satisfies the minimum requirements will be processed in accordance with Section 5, Information Needed to Complete Processing of a Transfer Application.

(1) Application Forms. An application for transfer must be submitted on a current form provided by the department entitled, "Application for Transfer of Water Right." The current form is available from the department's Internet homepage at:

http://www.idwr.idaho.gov/water/rights/water_rights_forms.htm

(2) Name and Address. An application for transfer must include the name and address of the applicant. In addition, the application must include the name and address of any new right holder(s) for the water rights (or parts thereof) being transferred, if different than the applicant. The applicant's name must match the department's current record of ownership for the water rights (or parts thereof) being transferred. Otherwise, adequate documentation must be included to show that a change in ownership or authority to make the change has legally occurred. Adequate documentation can be a warranty or other deed, title policy, contract of sale or option for purchase by applicant (if the contract or option allows the transfer), or other similar document confirming ownership of the water right(s) or the authority to change the water right. See Records Memorandum No. 9 for additional guidance on water right ownership documentation.

A transfer application filed to change a right (or part thereof) claimed in a pending adjudication, where the claimed place of use is based on an accomplished transfer pursuant to Section 42-1425, *Idaho Code*, must include adequate documentation demonstrating the applicant's ownership of the right or authority to make the change.

(3) List of Water Rights to be Changed. An application for transfer must list all water rights for use in a common system of diversion and distribution for which the point of diversion, place of use, period of use, or nature of use are proposed to be changed (the water rights to be transferred). Proposed changes which involve separate diversion and distribution systems must be filed as separate applications. A proposed change to the remaining portion of an existing water right subsequent to a proposed transfer requires a separate application for transfer.

(4) Associated Water Rights or Water Supply. The application must include a separate list of individual water rights, other than those proposed to be changed, and a description of water supplied by a canal company, irrigation district, or municipality, that provide water currently used in the same diversion system or at the same place of use as the right(s) proposed to be transferred (associated water rights or water supply). In addition, the application must include a separate list of associated water rights or water supply proposed to be used in the same system or at a new place of use. If the associated water rights or water supply are not owned by the applicant and changes to conditions

for those rights are necessary, documentation must be submitted confirming that the applicant has the legal authority to make such changes on behalf of the current owner of the other rights.

Changes to conditions or remarks for associated water rights that are necessary as a result of an approved transfer and that do not affect the rights of other persons or entities can be made without a separate transfer application or process. Such changes usually result from a division in ownership and should be included in the transfer approval document.

(5) Reason for Change. The application must list the purpose for and a general statement of the reason for the proposed change.

(6) Description of Proposed Change. The application must describe in writing the proposed changes, which must include the following:

a. The right number(s) assigned by the department for the right(s) proposed to be changed must be identified. If the right was established by a beneficial use for which a claim has not been filed, a claim must be filed before or together with the transfer application. If the right is represented by a decree and the department has not assigned a number to the right, a copy of the decree must be included with a description of the right that is proposed to be changed.

b. The amount of water proposed to be diverted, as a rate of flow in cubic feet per second and as acre-feet per year, if the transferred water right has a volume limitation, for natural flow and ground water rights must be set forth. The amount of any stored water involved in a transfer must be identified in terms of acre-feet per year for each purpose of use listed.

c. The proposed nature or purpose of use must be stated. For non-irrigation uses such as "industrial" or "commercial," a more detailed description of the proposed use(s) must be provided under the "Remarks" section of the application, or as an attachment to the application. For applications proposing to change the nature of use to municipal purposes for reasonably anticipated future needs (RAFN), the applicant shall provide information to establish that the applicant qualifies as a municipal provider and that the RAFN, service area, and planning horizon are consistent with the definitions and requirements specified in Section 42-202B, *Idaho Code.*

d. The period of each year during which water is proposed to be diverted, or diverted and stored, and beneficially used must be set forth for each use listed.

e. The source of water for the proposed changes must be listed. An application proposing a diversion, injection, and re-diversion of water must list the source for the original diversion as the source for the injection and re-diversion. An application proposing to change the point of diversion to a location resulting in a change from ground water to surface water or from surface water to ground water shall include an analysis confirming a direct and immediate hydraulic connection (at least 50 percent depletion in original source from depletion at proposed point of diversion in one day). See Section 5c. (7) for further details.

f. The legal description of the point(s) of diversion must be described. The description must be to the nearest 40–acre subdivision or U. S. Government Lot of the Public Land Survey System. Existing point(s) of diversion should be described to the nearest 10-acre tract, if based on a previously recorded 10-acre description or other accurate means such as GPS or a detailed and accurate map. Proposed point(s) of diversion need only be described to the nearest 40-acre tract. The location of springs must be described to the nearest 10–acre tract. Subdivision names, lot and block numbers, and any name in common usage for the point of diversion should be included in the "Remarks" section of the application form.

g. Except as provided herein, the legal description of the place of use must be set forth to the nearest 40-acre subdivision or U. S. Government Lot of the Public Land Survey System. Subdivision names, block and lot numbers, and any name in common usage for the place of use should be included in the "Remarks" section of the application form. For water rights held by irrigation districts, municipal providers, and others included under the provisions of Sections 42-202B or 42-219, *Idaho Code*, the place of use may be generally described even if previously described to the nearest 40-acre subdivision or government lot.

   i. If irrigation is a purpose of use, the number of acres in each 40-acre tract of the place of use or within a generally described place of use must be shown. The location of uses, other than for municipal providers or

for irrigation, must be identified in the appropriate 40-acre tract(s).

ii. Except for wastewater when there is a full existing water right for irrigation of the place of use receiving wastewater, if a proposed change includes disposal or use of wastewater by land application to growing crops the application must identify the location of the waste disposal area by legal description under the use from which the wastewater originates.

h. An adequate description of the proposed diversion, delivery and application system(s) must be provided. This may include preliminary sizes and dimensions of pumps, pipelines, headgates, ditches, dams, impoundments, and application equipment. The type and location of measuring devices might also be required for applications providing for measurement of water to address specific injury or enlargement concerns. For large existing systems, such as those owned by municipal providers, irrigation districts, and canal companies, only those features proposed to be added or modified need to be described.

(7) Map of System. A map corresponding to the written description above must be included showing the location of points of diversion, reservoirs, dams, canals, ditches, pipelines, and other works proposed to be used in the diversion and conveyance of water. The map must clearly show the location of the place of use including lands to be irrigated, if any. If only a part of the water right(s) is proposed to be changed, the map must include the location of the part of the existing recorded right(s) proposed to be removed (or changed). Legal descriptions including townships, ranges, sections, quarter-quarters, and government lots must be evident or labeled unless other reference information is evident on the map to identify the specific location. In lieu of creating a map, a copy of a published map, such as a U. S. Geological Survey quadrangle map, or an aerial photograph, can be attached to the application with the required identification shown thereon. For large existing systems, such as those owned by municipal providers, irrigation districts, and canal companies, only those features proposed to be added or modified need to be shown.

(8) Response to Questions on the Form. The application for transfer must include responses to the questions on the application form concerning the validity of the right, the proposed use of the land from which the right is proposed to be removed (if applicable) and the existence of mortgages or liens. In addition, the application should address any agreements or commitments not to divert water under the right(s)

proposed for transfer such as a lease to the water supply bank (WSB), enrollment in the federal Conservation Reserve Enhancement Program (CREP) or dedication of the right(s) for mitigation purposes.

(9) Changes to Part of a Right. If only a part of a right is being changed, the application for transfer must define that part by describing each of the elements, as currently licensed or decreed or otherwise recorded, for the part of the right being changed.

(10) Signature. The application for transfer must include the signature of the applicant or the applicant's authorized representative. If a representative signs the application, evidence of authority to sign for the applicant must accompany the application. An application in more than one name must be signed by each applicant unless the right is held in the name of one joint owner "or" other joint owner(s), or the right is held in the name of one joint owner "and/or" other joint owner(s).

(11) Filing Fee. The filing fee provided in Section 42-221, *Idaho Code*, must be submitted with the application for transfer. If the applicant is a governmental agency, a purchase order for the required amount is acceptable. (See the memorandum titled "Guidance on SB 1337 Amending Section 42-221, I.C.," dated June 26, 2000, and Transfer Processing Memorandum No. 23 for further guidance on application fees.)

(12) Changes to Point of Diversion from Eastern Snake Plain Aquifer. Except as provided below, if the application for transfer proposes to move the point of diversion for a water right to divert and use ground water from one location to another within the Eastern Snake Plain Aquifer (ESPA) including any modeled tributary aquifers, the applicant must submit an attachment with the application that sets forth the time series of calculated depletions (transient to steady-state) to reaches of the Snake River that are hydraulically-connected to the ESPA using or based on the department's current ground water model for the ESPA, or other equivalent analysis acceptable to the department. When using results from or based on the department's ground water model, the time series of calculated depletions must be for the cells containing the points of diversion both before and after the proposed transfer (initiating at the date of priority of the water right and ending at future steady state condition). If the cells are the same, the attachment is not required except as described below. A copy of the department's ESPA ground water model, or associated transfer spreadsheet[3] can be obtained by contacting the department or visiting the department's web site.

[3] The Department's ESPA transfer spreadsheet has a fixed 150-year analysis period which may not reach a true steady-state condition in all instances; however, the analysis period provided by the spreadsheet is acceptable to the Department for purposes of the required attachment. For purposes of this

The purpose of the time series of depletion attachment is to provide a basis for evaluating whether the proposed transfer will increase depletions to hydraulically-connected reaches of the Snake River.[4] Increases in such depletions are presumed to cause injury to existing water rights because all of the hydraulically-connected reaches of the Snake River (including tributary springs) have water rights that are not fully satisfied at certain times. Increased depletions greater than 10 percent for any reach are presumed to cause injury and must be fully mitigated such that there are no increases in depletion to those reaches except as described below.[5]

Increased depletions greater than 10% in any reach are considered insignificant under either of the following conditions and will not require mitigation for the proposed transfer to be approvable:

a. Increased depletions (transient to steady-state) to the reach are two acre-feet or less per trimester; or

b. The reach, at steady-state conditions, will not be depleted by an amount greater than 10% of the total depletion to all reaches caused by the diversion under the proposed transfer.[6]

Where mitigation is necessary for increased transient-state depletions, variance from the requirement for full mitigation during the transient state is allowed to provide for periods of static mitigation within the period of change. Mitigation for increased transient-state depletion to a reach is acceptable if the resultant depletion to a reach is no more than 5% over the simulated pre-transfer depletion to the reach and any deficient mitigation is approximately the same as excess mitigation during the transient state.

If the application for transfer proposes to move or add a point of diversion within or adjacent to the model cell for the existing point(s) of diversion, the attachment described above is not required when the application is submitted. However, if the department determines that the proposed change may significantly increase depletions to a

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memorandum, the transient state is the initial period of significant change to calculated depletions prior to approaching steady-state conditions.

[4] Increased depletions are based on the depletion volume that will be transferred through the change in point of diversion (i.e. not to include any volume for unchanged portions of rights or other associated rights not part of the change in point of diversion).

[5] This 10% threshold for mitigation reflects overall model uncertainty, of which one factor is the inherent error associated with measuring flows of water used as input to the model.

[6] This exclusion from the mitigation requirement is consistent with the Department standard in various delivery calls against ground water users diverting water from the ESPA that establishes a minimum percentage of 10% below which ground water users are not required to mitigate or replace simulated depletions to the reach.

hydraulically-connected reach of the Snake River (including tributary springs), the attachment will be required to complete processing of the application for transfer. See the Department's August 13, 2007 memo entitled, "ESPA Transfer Spreadsheet Version 3.1 – Implementation and Use" for further guidelines on use of the ESPA transfer spreadsheet.[7]

If the applicant offers reduced ground water withdrawals as mitigation, any proposed schedule for adjusting reduced withdrawals must also be set forth in the application for transfer.

Increased reach gains from other proposed ESPA transfers (offsetting transfers) can be used to provide part or all of the mitigation necessary for reaches requiring mitigation due to increased depletions (as determined by a stand-alone analysis of each individual transfer as described above). If the applicant offers offsetting transfers as mitigation, the transfer applications shall be submitted together as part of a plan to mitigate the individual transfer effects.

(13) Historic Beneficial Use. If the application for transfer proposes to change the nature or purpose of use or the season of use, the applicant must include an attachment documenting the historic extent of beneficial use under the right. For a transfer seeking to change a water right from irrigation, the attachment must provide sufficient data and information to determine historic consumptive water use. This can be satisfied by submitting records of cropping pattern or rotation, or records of water diverted and system efficiency, for at least the most recent, five consecutive years as described in Sections 5d.(5) and (6). If the application for transfer proposes to change the place of use for a supplemental water right, the applicant must include information to demonstrate that the supplemental right will not be enlarged (see Sections 5d.(3), (4) and (5) for definition and further discussion of supplemental rights).

(14) Electronic Shape Files or Photographs Documenting Place of Use Changes. If the application for transfer proposes to change the purpose of use for a water right from irrigation to another use, or change the place of use for a water right for irrigation to another location, either of which requires the drying up of acres at the original place of use, the applicant must submit an attachment to the application for transfer. The attachment must provide a clear delineation of the location and extent of the irrigated acres prior to the proposed transfer, and must also

[7] This memorandum supersedes portions of the Department's August 13, 2007 memo entitled, "ESPA Transfer Spreadsheet Version 3.1 – Implementation and Use" related to mitigation within 5 percent for transient and steady-state increases. The changes are being implemented to be consistent with use of the current ground water model for administration of water delivery calls in the ESPA. The remaining portions of the memo are still applicable.

provide a clear delineation of the location and extent of the irrigated acres, if any, after the transfer, if it is approved. This attachment may either consist of two electronic shape files in a format that is compatible with the department's GIS system or aerial photographs of sufficient detail acceptable to the department with the boundaries of the irrigated areas clearly shown and referenced to the Public Land Survey System. If a place of use involved with the application for transfer currently consists of a permissible place of use or a generally described place of use (see section 3(6)g above), then the applicable attachment is not required provided the application contains a clear statement that the boundaries for that place of use are not proposed to be changed by the transfer and the total number of irrigated acres within the place of use before and after the transfer is clearly set forth.

(15) Applications Involving Water Rights for Domestic Purposes. An application for transfer involving multiple water rights for domestic purposes as defined in Section 42-111, *Idaho Code*, even when evidenced by a decree, that proposes to establish a use, which itself would not be included within the scope of the definition for domestic purposes in Section 42-111, *Idaho Code*, is not approvable except as provided below. *Idaho Code* specifically prohibits the diversion and use of water under a combination of domestic uses to provide a supply of water for a use that does not meet the exemption of Section 42-227, *Idaho Code*, and is required to comply with the mandatory application and permit process for appropriating a right to the use of water pursuant to Chapter 2, Title 42, *Idaho Code*. An application for transfer filed for such a change is to be returned together and any associated application fee refunded.

An application for transfer involving multiple water rights for domestic purposes that is not proposing to change the nature of use or place of use may be approvable if the individual domestic uses will remain in place and the transfer is only intended to connect individual wells into a common system. Such transfer application may also include addition of a non-domestic right to add a use so long as the existing domestic uses will remain in place and will not be enlarged as a result of the transfer.

4. Changes to Applications for Transfer.

Amendment of Application. An applicant may revise or amend an acceptable application for transfer to clarify or correct information on the application. Significant changes to the place, period, or nature of the proposed use, amount of water, method or location of diversion, or other substantial changes from those shown on a pending application for transfer, will require filing a new application for transfer to replace the original application. If the revisions are not substantial, the application may be revised or amended with an initialed, dated endorsement by the applicant, or by the applicant's representative, on the original application, or by a letter describing the amendments in

sufficient detail. Changes initialed or signed by the applicant's representative must be accompanied by evidence providing authority to sign for the applicant if not previously provided. Changes to the application or supporting information are not to be made by staff under any circumstances. A replacement application must be identified as "changed," "amended" or "revised" on its face so that it can be distinguished from the original application, and the original application must be marked as "superseded." An additional filing fee may be required if the revised or replacement application involves more water than proposed in the original application for transfer. A re-advertisement fee, as provided in Section 42-221F, *Idaho Code*, will be required if notice of the original application has been published and changes to the original application are significant and warrant re-notice. (See Transfer Processing Memorandum No. 20 for additional information regarding changes to applications.)

Assignment of Application. An applicant may assign, in writing (must be notarized), an application for transfer to another entity while the application is pending before the department. An assignment does not require additional notice of the application to be published, and there is no fee for an assignment of an application. The assignment will change the name of the transfer applicant, but ownership of the water right(s) involved in the transfer cannot be changed without proper notice and documentation. Section 42-248, *Idaho Code*, provides that a transfer application can substitute for a notice of change in water right ownership if adequate documentation is provided with the application.

5. Processing an Application for Transfer Prior to Hearing.

Processing of an application for transfer consists of the steps outlined below. Flexibility is provided for some steps with the intent to streamline or expedite processing of routine or non-complex applications. Regional Managers have been delegated authority to sign routine water right approvals and denials and should continue to implement their signature authority as outlined in the Department's June 7, 2007 memo entitled, "Delegation of Authority for Water Right Approval/Denial" and other delegation that may be provided.

(1) Initiating Processing – Data Entry. Once an application has been accepted and the application fee receipted pursuant to Section 3, Requirements for an Acceptable Application for Transfer, the Regional Office shall complete data entry of the basic information contained in the application and initiate working in parallel with the State Office to process non-routine or complex applications.

(2) Additional Information. For those applications to be processed in parallel, the Regional Office and the State Office will determine what, if any, additional information is necessary to complete or supplement the application. For all applications, the Regional Office will correspond with the applicant to obtain the additional information, obtain watermaster recommendation as described below, and perform any field review that is also necessary in coordination with staff from the

Adjudication Bureau if the water right is claimed in a pending adjudication.

(3) Administrative, Hydrologic, and Legal Review. For those applications to be processed in parallel, the Regional and State Offices will complete a review of all information submitted, in coordination with the Adjudication Bureau as needed, and forward appropriate information to the Hydrology Section and Administration for additional hydrologic, policy, and legal review as necessary.

(4) Preparation of Staff Memorandum. Once the review is complete, the Regional Office will prepare a memorandum, with the concurrence of the State Office if necessary for parallel review, that documents the review and evaluation of the sufficiency of the information submitted and whether processing of the application can continue because there is no clear inconsistency with the criteria set forth in Section 42-222, *Idaho Code.* If it is determined that processing of the application can continue, the Regional Office will complete necessary GIS descriptions, finalize data entry, and draft conditions for entry into Work Flow.

(5) Rejection or Denial of Application. If it is determined that the application for transfer should be rejected or can not be approved pursuant to Section 42-222, *Idaho Code*, the Regional Office or State Office (for parallel review) will prepare and issue a preliminary order rejecting or denying the application. An application for transfer may be rejected if the applicant fails to provide additional or adequate information pursuant to the requirements in this Section 5. An application for transfer that clearly does not satisfy the criteria set forth in Section 42-222, *Idaho Code*, must be denied. A rejected application may be re-filed when adequate information can be provided; a denied application can not generally be re-filed for substantially the same proposed transfer, unless a showing is made that substantial changes have subsequently occurred such that the criteria set forth in Section 42-222, *Idaho Code*, can potentially be satisfied. In either case, application fees will be retained. Note that notice of a rejected or denied application shall be sent to the applicant by certified mail pursuant to Section 42-222, *Idaho Code.*

(6) Applicant Contest of Rejection or Denial. If the applicant contests the preliminary order rejecting or denying the application and requests a hearing pursuant to Section 42-1701A, *Idaho Code*, the Regional Office will publish notice of the application for transfer pursuant to Section 42-222, *Idaho Code*, including notice of the contested case, and provide opportunity to protest the application and intervene in the contested case unless published notice is not required for the application as described below.

(7) Public Notice. If it is determined that processing of the application can continue consistent with the criteria set forth in Section 42-222, *Idaho Code*, the Regional Office will publish notice of the application for transfer. In some cases, published notice of the application may not be required. Pursuant to Section 42-222, *Idaho Code*, the Department has discretion to provide notice as deemed appropriate for applications proposing to change only the point of diversion or place of use in a manner that will not change the effect on the original or hydraulically-connected source or affect other water rights.

The timing of the public notice in these steps should remain flexible in order to streamline or expedite processing of the application. For example, processing time may be reduced by preparation of draft documents during the notice period. However, notice should not be provided prior to determining that the application meets the minimum requirements described in Section 3 and that there is a clear understanding by staff regarding the purpose of the transfer. Premature notice could result in the requirement to republish notice due to changes to an application or could result in unnecessary publication costs where an application is likely to be rejected or denied.

(8) Preparation of Approval Document. If no protest to the application for transfer is filed under step (7) above, or all protests filed are withdrawn prior to hearing, the Regional Office will finalize an electronic approval document and issue an approved transfer, subject to appropriate conditions, as a preliminary order and complete data updates in Work Flow. For those applications processed in parallel, the Regional office will finalize an electronic approval document and forward the document to the State Office for final approval and data updates.

(9) Contested Case Proceedings. If protest to the application for transfer is filed under either step (6) or (7) above, a contested case process will be completed. The hearing officer will forward electronically any final order that results from the contested case to appropriate staff to complete data updates in Work Flow.

Gathering Information Needed for Processing. In completing the steps outlined above, additional information may be needed for clarification of the purpose and intent of the proposed change, to further document the information on the application, or to provide a sufficient basis for determining whether the proposed change satisfies the statutory criteria for approval. **The applicant bears the burden of providing sufficient information.** However, staff should locate and assemble information available in the department's records that does not require compilation, interpretation, or analysis by an engineer, geologist, or other technical specialist.

Requests for Additional Information. Correspondence shall be prepared requesting any additional information needed and providing a reasonable period of time for response

(generally 30 days). When additional information is requested from the applicant, the applicant shall be informed of the need for a timely response to avoid delays in processing. The applicant shall also be informed that the application may be rejected if the additional information requested from the applicant is not timely received or is inadequate. The department can grant additional time to submit the required information if the applicant submits a written request for additional time and sufficient justification is provided.

Watermaster Recommendation. Section 42-222, *Idaho Code*, requires that the department shall advise the watermaster of any water district in which the water is used of any proposed change. The department shall not take final action on an application for transfer until the watermaster's recommendation has been received and considered.

Delays or non-response from watermasters results in delays in processing applications. The watermaster shall be informed that a non-response will be considered by the department to be the watermaster's recommendation not objecting to approval of the proposed transfer. Department staff should ensure that all watermasters understand their responsibility to provide recommendations.

Staff to Exercise Judgment. **Department staff has discretion to adapt the requirements set forth herein according to the nature and complexity of a proposed transfer.** While it is important that the information and documentation requirements are consistently applied, **staff is to use sound judgment to avoid asking the applicant for unnecessary information or seeking unnecessary review and comment from other state or local governmental entities as these guidelines are applied.**

5a. Evaluation of Authority to File an Application for Transfer.

(1) Presumption Based Upon Department Ownership Records. For any application for transfer, the department must have sufficient information to determine that the applicant has the authority to seek the proposed change in use of the water right(s). The department can presume, absent information to the contrary, that the applicant is the owner of the right(s) if the department's ownership records maintained pursuant to Sections 42-248 or 42-1409(6), *Idaho Code*, list the applicant as the current owner. The department may need to seek documentation regarding ownership if there is reason to believe that the department's ownership records may be inaccurate. One situation where the department's records may not confirm current ownership is described below.

A transfer application filed to change a right (or part thereof) claimed in a pending adjudication, where the claimed place of use is based on an accomplished transfer pursuant to Section 42-1425, *Idaho Code*, must include adequate documentation demonstrating the applicant's ownership of the right or authority to make the change.

(2) Other Acceptable Documentation. If the applicant's name does not match the name in the department's records for the current owner of the right(s) sought to be transferred, the applicant must provide evidence of current ownership or authority to make the proposed change(s). Adequate documentation can be a warranty or other deed, title policy, contract of sale or option for purchase by applicant (if contract or option allows the transfer), or other similar document confirming ownership of the water right(s) or the authority to change the water right. See Records Memorandum No. 9 for additional guidance on water right ownership documentation.

(3) Applicant Does Not Own New Place of Use. If the application for transfer proposes to change the place of use authorized under the water right(s), and the applicant does not own the land at the proposed new place of use, then the applicant must provide documentation that authorizes the change on behalf of the current owner of the proposed new place of use, except when the applicant is a municipal provider, irrigation district, canal company, or other similar entity. Such entities may only need to provide evidence of their authority to provide water for the proposed place of use in instances where evidence of such authority is necessary.

(4) Conditions on Associated Rights. If an application for transfer proposes a change from or to a system where there is an associated water right that is not listed on the application as a right being transferred, a change to conditions for that right is required (other than changes to conditions resulting from an ownership split), and that right is not owned by the applicant, then the applicant must provide documentation authorizing the change on behalf of the current owner of the associated right.

(5) Authority to Sign on Behalf of an Applicant. If the application for transfer is signed by someone other than the applicant(s) as listed on the application, documentation is needed to establish that the signatory is a representative of the applicant and is authorized to sign on the applicant's behalf. The documentation can be a copy of a current "power of attorney" authorizing signature on behalf of the applicant, or other similar documentation. An application could also be signed by an officer of a corporation or company, an elected official of a municipality, or any individual authorized by an organization to sign the application for a corporation, company, or municipality (if accompanied by documentation confirming authorization). The signatory's title must be shown with the signature.

(6) Corporation, Partnership, Joint Venture, Association, or other Business Entity. If the application for transfer is in the name of a corporation,

partnership, joint venture, association, or other business entity, department staff must verify that the organization is a viable and legally recognizable entity. Department staff will conduct a Business Entity Search at the Idaho Secretary of State's website: http://www.sos.idaho.gov/. If the Business Entity Search does not confirm that the corporation, partnership, joint venture, association, or other business entity is properly registered in the State of Idaho, department staff will request further clarification from the applicant. The intent of this search is to ensure that the organization is properly identified, including identification of individuals with signature authority and responsibility to conduct the organization's activity. Department staff may utilize other available resources to obtain the necessary information.

(7) Approval of Irrigation Entity or Legislature. Section 42-108, *Idaho Code*, requires that if the right(s), diversion works, or irrigation system is represented by shares in a corporation, or owned by an irrigation district, no change can be made without the consent of such corporation or irrigation district. This includes the use of such right(s), diversion works, or irrigation system for mitigation purposes related to a proposed transfer. Any permanent or temporary change in period of use or nature of use, in or out-of-state, involving a quantity of water greater than fifty (50) cfs or a storage volume greater than five thousand (5,000) acre-feet must also be approved by the legislature if approved by the department, except that any temporary change within the State of Idaho for a period of less than three (3) years does not require legislative approval.

(8) Liens, Mortgages, or Contract Restrictions. The department is required to provide notice to the holder of a security interest in any water right(s) proposed to be changed if the security interest holder has filed a request for notice pursuant to Section 42-248(6), *Idaho Code*. If the transfer proposes a change that might impact the value of the land such as moving the place of use or diversion facility to other land or changing the nature of use and the land from which the water right is proposed to be transferred is subject to liens, mortgages, or other contract restrictions affecting the right to transfer the water, a notarized statement or a statement on official letterhead signed by an authorized representative of a mortgage company or similar entity is required from the holder of each such lien, mortgage, or contract (see Transfer Processing Memorandum No. 10).

(9) Municipal Provider. If an application for transfer proposes to change the nature of use of a water right to municipal purposes in the name of a municipal provider for reasonably anticipated future needs, the applicant must provide documentation to establish its qualifications as a municipal provider as defined in Section 42-202B, *Idaho Code*.

(10) Agreement not to Divert. The applicant must describe any agreement or commitment not to divert water under the right(s) proposed for transfer such as a lease to the water supply bank (WSB), enrollment in the federal Conservation Reserve Enhancement Program (CREP) or dedication of the right for mitigation purposes.

5b. Evaluation of Water Right Validity.

For any application for transfer, the department must determine the validity of the water right(s), or part thereof, proposed to be changed. The following factors must be considered when processing an application for transfer and may require additional information from the applicant.

(1) Department Records. For any application for transfer, the department must determine that a right, or part thereof, proposed to be transferred is valid and has not been lost by forfeiture or partial forfeiture. The department will presume, absent other information indicating forfeiture, that the right has not been forfeited if the department's water measurement records, aerial photography, remote sensing, or other information, shows use of water during the previous, consecutive, five-year period. The department will also presume that the right has not been forfeited when it is claimed in a pending adjudication or initially decreed in an adjudication within the previous five-year period. If staff makes a field inspection (all transfers seeking a change to a right evidenced only by a claim are to be field inspected or otherwise reviewed, see Transfer Processing Memorandum No. 1 as revised in Section 5b.(4) below), information must be gathered concerning the current status of diversion and delivery facilities and the apparent recent use of water.

(2) Other Acceptable Documentation. If the records available to the department do not establish that a right has been used within the previous, consecutive, five-year period (except as provided in (1) above or for a right held by a municipal provider for reasonably anticipated future needs pursuant to Section 42-223(2), *Idaho Code*), the applicant must be asked to provide written documentation demonstrating that the right has been used within that time period. Examples of appropriate documentation include power records for pumps used to divert water under the right, Farm Service Agency (FSA) crop production records, receipts or other evidence of expenditures or revenue from the use of water under the right, and adequate affidavits of objective persons having actual knowledge of the uses of water under the right. Alternatively, if the right has not been used within the previous, consecutive, five-year period, then the applicant must be asked to provide information showing that exceptions or defenses to forfeiture are applicable. Exceptions or defenses to forfeiture include those set

forth in Section 42-223, *Idaho Code*; extensions provided for in Section 42-222, *Idaho Code*; and case law relating to factors such as resumption of use, unavailability of water when needed, or non-use when other water is available. Note that filing an application for transfer does not toll the statutory period for forfeiture of a water right due to non-use.

(3) Validity of Unchanged Parts of a Water Right. For applications for transfer proposing to change part of a water right or rights, the remaining part(s) of the right(s) that are not involved in the proposed transfer are generally not subject to a finding of forfeiture as part of the transfer action by the department.[8] In addition, the remaining part(s) of the right(s) are generally not subject to any additional conditions beyond the requirements of the original right(s). However, in some circumstances, department staff may be required to perform a comprehensive forfeiture analysis for the remaining part(s) of the right(s) to determine if a transfer can be approved. For example, a transfer application proposing to change part of the irrigated acres within a permissible place of use may require a comprehensive review of all the acres within the permissible place of use to determine if there are sufficient acres available to be transferred. When there has not been a comprehensive forfeiture analysis performed for the remaining, unchanged part(s) of the right(s), a remark will be included for any remaining part(s) of the right(s) to indicate that an approved transfer does not confirm the validity of the remaining, unchanged part(s) of the right(s).

(4) Statutory or Beneficial Use Claims. Applications for transfer proposing to change a water right based on a statutory or beneficial use claim must be reviewed to determine the validity, priority date, and extent of beneficial use established under the claimed right. Review must include field verification or other means to verify the right. This memo effectively revises the means of verification as required in Transfer Processing Memorandum No. 1. In addition, the applicant must be asked to provide information confirming the priority date of the claim. Adjudication staff must also be consulted for questions regarding review of the priority date if the claim is filed in a pending adjudication. A transfer approval for the water right (or part thereof) based on a claim shall incorporate the department's findings regarding the validity of the right. If a statutory or beneficial use claim is the basis for a pending claim in an adjudication, adjudication staff shall be notified of the results of the validity review, and the claimant shall be informed of the findings.

[8] Section 42-350, Idaho Code provides a process for revocation of a license at any time after issuance of the license upon a finding by the Director that the water has not been put to beneficial use for a period of five years.

5c. Injury to Other Water Rights

For any application for transfer, the department must determine whether the proposed change will injure any other rights, whether junior or senior in priority to the right being changed. The following factors must be considered when processing a transfer and may require additional information from the applicant.

(1) Reduction in Quantity of Water Available to Other Water Rights. Whether the amount of water available under an existing water right, senior or junior in priority, will be reduced below the amount recorded by permit, license, decree, or valid claim, or the historical amount beneficially used by the right holder, whichever is less. Consideration of this factor may require an analysis of the timing and location of return flows both before and after a proposed change to determine if the change will reduce the supply available to other water rights.

(2) Rotation. Whether a proposed change in the point of diversion of a water right that has been delivered in rotation with delivery of other water rights will result in significant additional losses borne by the water rights remaining in rotation.

(3) Unreasonable Effort or Expense. Whether the holder of an existing water right will be forced to an unreasonable effort or expense to divert water under the existing water right.

Existing ground water rights are subject to reasonable pumping level provisions of Section 42-226, *Idaho Code*, as well as applicable court decisions (e.g., Parker v. Wallentine, 103 Idaho 506, 650 P.2d 648 (1982), regarding in part the obligation to pay increased costs to divert an existing right).

An application for transfer that is approved to provide alternate points of diversion from ground water under one or more municipal water rights to develop or expand a common delivery system shall include conditions of approval to identify the point(s) of diversion authorized under each right prior to the transfer. The purpose of the condition is to provide for future administration of water rights in situations where increased municipal pumping over time is determined to cause injury through interference with other nearby wells.

(4) Unusable Water Quality. Whether the quality of water available to the holder of an existing water right would be made unusable for the purposes of the existing right.

(5) Mitigation. Whether mitigation would be needed to prevent injury to an existing water right that would be injured otherwise.

Unless agreed to in writing by the holder of an existing right, the only mitigation that can be considered acceptable by the department is the provision of replacement water in the full amount of the injury, at the same time injury would otherwise occur, and of acceptable water quality at the point of diversion for the existing right.

For applications that propose to move the point of diversion for a water right to divert and use ground water from one location to another within the ESPA, including any modeled tributary aquifers, mitigation is required for transfer approval when all of the following conditions occur: (a) the transfer would result in increased depletions (transient or steady state) greater than 10%, to any hydraulically-connected reach of the Snake River; (b) the increased depletion (transient or steady state) to the reach is greater than 2 acre-feet per trimester; and (c) the depletion, at steady-state conditions, to the reach is greater than 10% of the total depletion to all reaches resulting from the diversion under the proposed transfer. When greater increases in such depletions would occur, acceptable mitigation includes reduction in the quantity of ground water diverted and depleted such that there is no increase in depletions (for transient-state increases, no more than 5 percent over pre-transfer depletions so long as de ficient mitigation is approximately equal to excess mitigation) for each hydraulically-connected reach of the Snake River requiring mitigation. When this form of mitigation is proposed, the quantity of ground water diverted may be increased periodically (no more frequently than annually) if supported by an analysis of the timing of calculated depletions (transient to steady-state) to reaches of the Snake River that are hydraulically-connected to the ESPA for the points of diversion both before and after the proposed transfer. However, the proposed schedule for increased diversions must be set forth in the application for transfer.[9] See Section 3(12) for additional guidance.

Increased reach gains from other proposed ESPA transfers (offsetting transfers) can be used to provide part or all of the mitigation necessary for reaches requiring mitigation due to increased depletions (as determined by a stand-alone analysis of each individual transfer as described above). If approved, the transfers will not require mutual dependence for ongoing mitigation. However, any approval issued on the basis of offsetting transfers shall include conditions of approval to address future changes back to the original point(s) of diversion or future changes to a new location. In addition, conditions of approval

[9] If the transfer is approved with mitigation by reducing the amount of ground water withdrawn, and as a result the reach gains to one or more other hydraulically-connected reaches of the Snake River increase, then the applicant shall retain the right to receive credit for the increased reach gains. Such credits can not currently be used because there is no administrative system in place to recognize such credits. In the event that an administrative system is created in the future whereby such credits available at that time can be recognized, the applicant shall retain the right to the possible future use of such credits, which shall be reflected in a condition of approval for the transfer.

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shall be included to address changes that would result in increased impacts to reaches of the Snake River due to differences in priority date between the rights involved in the offsetting transfers. Such changes could result in injury to surface water rights in connected reaches of the Snake River in the event of a curtailment order affecting ground water rights in the ESPA. See the Department's August 13, 2007 memo entitled, "ESPA Transfer Spreadsheet Version 3.1 – Implementation and Use" for further guidance.

(6) Ground Water Management Area or Critical Ground Water Area. Whether the point of diversion for a ground water right would move from outside the boundaries of a critical ground water area (CGWA) or ground water management area (GWMA) to within the boundaries of a CGWA or GWMA, or whether the point of diversion would move from within the boundaries of a GWMA to within the boundaries of a CGWA.

An application for transfer proposing such a change in the location of the point of diversion for a ground water right is not approvable unless the applicant proposes acceptable mitigation to prevent injury to other water rights. For cold water (85° F or less) GWMAs over the ESPA, mitigation beyond that satisfying condition (4) above will not be required at this time as a condition of approval, unless injury would occur to a water right to divert ground water or injury would occur to a water right to divert surface water that has not been offset by stipulated agreement or through a mitigation plan approved by the department,

(7) Change of Source. Whether the source would be changed from ground water to surface water, or from surface water to ground water.

Section 42-222, *Idaho Code* does not provide for a change from a ground water to surface water source, or from a surface water to ground water source. An application for transfer proposing such a change in source is not approvable unless the ground water and surface water sources are so interconnected that they constitute the same source for purposes of a proposed change in point of diversion. The ground water and surface water sources must have a direct and immediate hydraulic connection (at least 50 percent depletion in original source from depletion at proposed point of diversion in one day). The existing point of diversion and proposed point of diversion must be proximate such that diversion and use of water from the proposed point of diversion would have substantially the same effect on the hydraulically-connected source as diversion and use of water from the original point of diversion. If such application for transfer is approved, the changed water right shall be administered no differently than any other water right from the surface water source. If approved, the source for a change from a surface water source to a ground water source should be listed as ground water tributary to the surface water source.

(8) Changing Aquifer Source. Whether a proposed change in point of diversion for a ground water right is from one aquifer to another aquifer.

An application for transfer proposing to change the point of diversion from one distinct aquifer to a totally separate aquifer is not approvable, just as an application for transfer proposing to change the point of diversion for a surface water right from one distinct surface water source to a totally separate surface water source is not approvable.

(9) Conveyance Losses. Whether the proposed change would move part or all of a right from a canal impacting conveyance losses associated with the delivery of multiple water rights in the canal.

If such application for transfer is otherwise approvable, the approval must require that the applicant retain an appropriate amount of water in the canal to prevent any additional reduction in the amount of water available from the canal to fill other water rights because of the portion of the conveyance losses that, prior to the transfer, were attributable to the right being transferred.

Additional Considerations. In addition to the considerations above, the following information may be needed to evaluate injury involving an application for transfer for a ground water right, depending on the specific circumstances of the proposed transfer. If the information is not available in the department's records, the applicant must provide the following information that department staff determines is necessary:

(1) Location of Nearby Wells. The location of the nearest production well, including domestic wells, to the proposed point of diversion, and if different, the nearest production well down gradient from the proposed point of diversion (the location of other nearby production wells may also be required);

(2) Location of Nearby Springs. The location of nearby springs from which water is diverted under existing rights, including domestic uses, that could be affected by ground water diversions from the proposed point of diversion;

(3) Ground Water Levels. The depth to water, the stability of ground water levels, or the stability of confined aquifer pressures, in the area of the proposed point of diversion; and

(4) Water-Bearing Zones. The depth and thickness of water-bearing zones, including identification of the zone or zones sought for the proposed use.

5d. Enlargement of Use

For any application for transfer, the department must determine whether the proposed change will enlarge the use of water under the water right(s). Enlargement will occur if the total diversion rate, annual diversion volume, or extent of beneficial use (except for nonconsumptive water rights), exceeds the amounts or beneficial use authorized under the water right(s) prior to the proposed transfer. The following factors must be considered when processing an application for transfer, which may require that additional information be provided by the applicant:

(1) Diversion Rate, Annual Diversion Volume, and Number of Acres Licensed or Decreed. The authorized diversion rate, annual diversion volume (ground water rights only and certain surface water rights), and number of acres authorized for irrigation (if applicable), as licensed or decreed for the water right, shall not be increased. If the annual diversion volume is not specifically stated on the license or decree for a ground water right, then the amount will be based on the most current standards adopted by the department unless the applicant can show a larger amount has been reasonably diverted and beneficially used.

(2) Beneficial Use. An application for transfer proposing to change the place of use or nature of use for all or part of a water right or water rights, which change would not result in an equivalent reduction in beneficial use under the original right(s), will be presumed to enlarge the water right(s). For example, hydropower use cannot be added to a right used for irrigation, even though no additional water would be diverted for the hydropower use. The irrigation use, or part thereof, could be changed to hydropower use by reducing the irrigation use by an equivalent amount, or the new use could be provided without reducing the irrigation use by obtaining a new permit to appropriate water for hydropower use.

(3) Stacked Water Rights. Water rights are "stacked" when two or more water rights, generally of different priorities and often from different sources, are used for the same use and overlie the same place of use. Water rights for irrigating a permissible place of use are not necessarily stacked when the water rights in total provide for irrigating up to the maximum acreage authorized within a permissible place of use. An application for transfer proposing to "unstack" one or more water rights used for irrigation or other use, without changing all the rights for the same use, is presumed to enlarge the water right. However, the place of use for a supplemental irrigation right may be changed for continued use as a supplemental irrigation right at a different place of use without, by definition, enlarging the original right or the supplemental right proposed for transfer, so long as the primary rights at the original and proposed places of use provide comparable water supplies. In other words, use of the supplemental right at the proposed place of use can

not materially exceed use of the supplemental right at the current place of use.

(4) Changing Supplemental Right to Primary Water Right. A supplemental irrigation right is a stacked water right authorizing the diversion of water for irrigation from a secondary source to provide a full supply for crops when used in combination with a primary right. A supplemental right can provide additional water in conjunction with a primary source, or at times when the primary source is unavailable. The use of a supplemental right is dependent on the supply available under the associated primary right and can be highly variable from year to year. An application for transfer proposing to change a supplemental irrigation right to a use as a primary water right for irrigation or other use will be presumed to enlarge the supplemental right. An exception is when the applicant can clearly demonstrate, using historic diversion records for the supplemental right as described in (5) below, or other convincing water use information, that there would be no enlargement of the water right being changed or other related water rights. Evidence of the quantity of water beneficially used under the primary right must be accompanied by some evidence of the quantity of water used under the supplemental right to qualify as "convincing water use information." The supplemental right must have been used on a regular basis (used more than 50 percent of the time). Insufficient data will be grounds to reject the application because the department will not be able to ascertain if the right will be enlarged.

If an application proposes to change only a portion of a supplemental irrigation right to a use as a primary water right, the application is not approvable unless the extent of beneficial use under all associated rights prior to the transfer will be proportionately reduced or transferred to another place of use to avoid enlargement of the remaining portion of the supplemental right. The associated right(s) will not need to be reduced if the entire supplemental right will be changed through the transfer.

A general exception to the presumption of enlargement when changing a supplemental right to a primary right applies when the supplemental right is a storage right. Section 42-222(1), *Idaho Code*, provides that a transfer of a water right for the use of stored water for irrigation purposes does not constitute an enlargement in the use of the original water right, even when more acres are irrigated, provided that no other water rights are injured.

(5) Historic Beneficial Use. For an application for transfer seeking to change the nature or purpose of use, or season of use, including for a supplemental water right, the historic extent of beneficial use under the right must not be enlarged. The extent of historic beneficial use may

also have to be considered for other proposed changes in the place of use under some circumstances when there are other sources of water, such as natural subirrigation, even when the purpose of use or period of use are not proposed to be changed. For a transfer seeking to change a water right for irrigation, the consumptive water use based on the cropping pattern or rotation, or estimated from records of water diverted and system efficiency, for the most recent, five consecutive years is presumed to provide a reasonable basis to establish historic use under the water right proposed for transfer, unless information provided by the applicant supports using a longer historic period. Exceptions or defenses to forfeiture may also justify extending the time period considered in establishing the historic use prior to the proposed transfer. The highest-year historic consumptive use (i.e. highest-use crop rotation using a climatic average for crop water use estimates), except for supplemental rights, will be the basis for the annual volume of consumptive use available for transfer. When it is necessary to determine the historic consumptive use under a supplemental right, the average annual historic consumptive use, over an appropriately representative time period not less than five years but that may require greater than five years, will be the basis for the volume available for transfer. For supplemental irrigation rights, a representative time period will include years with both good and bad surface water supplies for the area. In some rare instances, the diversion rate, the annual diversion volume, and season of use could also be limited based on the extent of historic use.

For an application for transfer seeking to change the place of use under a supplemental water right for use in conjunction with a different primary right, the historic extent of beneficial use under the right must not be enlarged. For such changes, information regarding the historic availability or reliability of supply of the rights being supplemented (primary rights), both before and after the proposed change, is presumed to provide a reasonable basis to establish historic use under the supplemental right proposed for transfer.

(6) Period of Use. An application for transfer, which proposes an increased period of use in connection with a changed nature of use for ground water, is presumed not to be an enlargement in use if the rate of diversion, total annual volume diverted, and annual volume of consumptive use are not increased. However, a change to an increased period of use for a surface water right is presumed to be an enlargement and would cause injury where there are junior priority rights that rely on surface water during the time period outside of the historic period of use for the right proposed to be changed.

(7) Confined Animal Feeding Operations. For the purpose of quantifying the amount of water needed or used in connection with a confined

animal feeding operation, such as a feedlot or dairy, the water use will be considered fully (100 percent) consumptive.

(8) Fish Propagation. An application for transfer, which proposes to increase the number or volume of raceways in a fish propagation facility, will not be presumed to be an enlargement of the water right, unless the diversion rate or annual volume of water diverted are proposed to be increased.

(9) Disposal of Waste Water. An application for transfer filed to provide for the disposal of wastewater, by land application on cultivated fields or other beneficial use disposing of the wastewater, resulting from use of water under non-irrigation uses such as a dairy or other confined animal feeding operation, or "municipal" or "industrial" water rights where the use of water is considered to be fully consumptive, is not considered an enlargement of the commercial, municipal, or industrial water right. While not an enlargement of the water right, such use of wastewater must not injure other water rights (see Application Processing Memorandum No. 61 as revised under Section 1 of this memorandum) and must comply with best management practices required by the Idaho Department of Environmental Quality, the U. S. Environmental Protection Agency, or other state or federal agency having regulatory jurisdiction.

(10) Enhanced Water Supply. An application for transfer, which proposes to change a point of diversion from a surface water source to a new location where the water available is greater or more reliable, such as moving from the tributary of a stream downstream to the mainstem of the stream, is presumed to enlarge the water right, unless the proposed change is subject to conditions limiting diversion of water at the proposed new point of diversion to times when water is available and in priority at the original point of diversion.

(11) Water Held for Reasonably Anticipated Future Needs. Section 42-222, *Idaho Code*, provides that when a water right, or part thereof, to be changed is held by a municipal provider for municipal purposes, that portion of the right held for reasonably anticipated future needs can not be changed to a new place of use outside the service area of the municipal provider or to a new nature of use. See Section 42-202B, *Idaho Code* for applicable definitions related to municipal water use.

(12) Changing the Purpose of Use for a Water Right to Municipal Purposes. An application for transfer, which proposes to convey an established water right to a municipal provider and change the nature of use to municipal purposes, as defined in Section 42-202B, *Idaho Code*, shall not be approved without limiting the volume of water divertible under the right to the historic consumptive use under the water right prior to the

proposed change. If the proposed transfer involves a surface water right, the transfer shall not be approved without also limiting the right to the historic period of use under the right prior to the proposed change.

(13) Historic Use Recognized for Municipal Purposes. An application for transfer, which proposes to change the nature of use to municipal purposes for a water right established and held by a municipality that lists the purpose(s) of use as some combination of domestic, commercial, industrial, or irrigation, where those uses have historically been essentially for municipal purposes, as defined in Section 42-202B, *Idaho Code*, will not be presumed to be an enlargement of the right and will not require limitation to the historic consumptive use under the right. However, the change will be subject to the annual diversion volume, if specifically stated on the water right license or decree.

(14) Stored Water. Section 42-222(1), *Idaho Code*, provides that a transfer of a water right for the use of stored water for irrigation purposes does not constitute an enlargement in the use of the original water right, even when more acres are irrigated, provided that no other water rights are injured.

(15) Conveyance Losses. An application for transfer, which proposes to change the purpose of use for a portion of a water right covering conveyance losses to a use that would provide for irrigating additional acres, or other additional use, is presumed to be an enlargement of the water right.

(16) Measuring Requirements for Ground Water Diversions in the ESPA and Modeled Tributaries. Any water right transfer authorizing one or more changes to the diversion and use of ground water approved subsequent to the date of this memorandum shall include a condition of approval that requires the installation and maintenance of one or more measuring devices or means of measurement approved by the department. Until and unless changed pursuant to Section 42-701, *Idaho Code*, the following flow meter installation is required for the transferred right prior to diverting and using ground water under the transferred right:

a. One or more magnetic flow meters shall be installed, as required by the department, having an accuracy of 0.5 percent of rate of flow for flow velocities between 0.1 and 33 ft/sec in pipe sizes up to 4 inches in diameter and for flow velocities between 0.1 and 20 ft/sec in pipe sizes greater than 4 inches in diameter;

b. Each magnetic flow meter must be installed and maintained in accordance with the manufacture's specifications and

equipped with an LCD backlit display unit that displays instantaneous flow rate and total volume of water diverted in accordance with the department's requirements;

c. Each magnetic flow meter must provide analog output for flow rate, scaled pulse frequency for total volume of water diverted, and an RS232 port for communications.

In any transfer approval, the department may require, prior to diversion under the approved transfer, that each magnetic flow meter must be equipped with a data logger specified by the department and capable of storing 120 days of data including dates and cumulative volume of ground water diverted updated daily, as a minimum. If installation of a data logger is not required at the time of transfer approval, the department will condition the transfer approval that installation of a data logger may be required in the future.

Detailed specifications for the above requirements will be provided by the Water Distribution Section of the department upon request. A municipal provider subject to other measurement provisions that satisfy the department's measuring and reporting requirements are exempt from the above condition. Wells used solely for domestic use as defined under Section 42-111, *Idaho Code* or stockwater use under Section 42-1401A, *Idaho Code* are also exempt from the above condition. Water use for domestic and/or stockwater purposes in addition to any other purpose (e.g. commercial use) in a common system is not exempt from the above condition. Holders of ground water rights seeking approval of a transfer for diversion through existing systems or for irrigation systems m ay request a variance from the above requirements (at any time before or after approval), which may or may not be granted.

5e. Local Public Interest

For any application for transfer, the department must consider whether the proposed change(s) are in the local public interest as defined in Section 42-202B(3), *Idaho Code*. Consistent with earlier guidance herein regarding use of discretion and sound judgment, department staff is to address pertinent items from the following list, as well as other issues that are pertinent to specific circumstances, in considering whether sufficient information has been provided regarding local public interest issues and effects on the public water resource. When there are one or more significant questions about whether a particular transfer would be in the local public interest, additional information from the applicant or comments from other state or local governmental entities that have germane expertise on local public interest issues must be sought. In most cases, the applicant should gather the information and submit it to the department rather than department staff sending a form letter to other agencies seeking comment, unless the

local agency requests direct contact with the department. Staff should inform the applicant of their responsibility to provide the information to the department.

(1) Recreation, Fish, and Wildlife Impacts. The effect the proposed transfer could have on the public water resource in relation to recreation, fish, and wildlife resources in the local area that would be affected by the proposed change (Transfer Processing Memoranda Nos. 19 and 21 provide guidance related to state protected river reaches and minimum stream flow reaches);

(2) Water, and Hazardous Substance Standards. Whether the proposed transfer would comply with applicable water and hazardous substance standards designed to protect the public water resource;

(3) Local and State Requirements. Whether the proposed transfer would comply with local government and state government, if any, planning and zoning ordinances, regulations, records of decisions, or policies affecting the public water resource (e.g. requirement of a local government to use surface water for irrigation for developments involving land use changes pursuant to Section 67-6537, *Idaho Code* is considered an expression of local public interest);

(4) Neighboring Jurisdictions. Whether the proposed transfer would comply with existing requirements for land use and other uses of natural resources affecting the public water resource, if any, adjacent to the place of use proposed by the transfer but beyond the jurisdiction of the local government having authority or control over the proposed place of use; and

(5) State Water Plan. Whether the proposed transfer would be compatible with the objectives and policies of the State Water Plan pertaining to the local public interest.

5f. Beneficial Use and Conservation of Water Resources

For any application for transfer, the department must consider whether the proposed use of water is a beneficial use consistent with the conservation of water resources within the State of Idaho. The following factors must be considered when processing a transfer and may require additional information from the applicant:

(1) Efficiency of Diversion and Use. Whether the water delivery and distribution/application systems for the use proposed by the transfer would be consistent with contemporary standards for reasonably efficient use of water.

(2) Diversion Rates for Irrigation Use. Whether the proposed transfer, if involving irrigation, proposes a diversion rate in excess of 0.02 cfs per

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acre of land irrigated (see Section 42-220, *Idaho Code*), and if the application for transfer proposes a higher diversion rate, whether the higher rate would be justified based on soils, crop types, irrigation system, climate, and reasonable conveyance losses from the point of diversion to the place of use. A higher diversion rate may also be justified for irrigating lands that because of public access can only be irrigated during certain times of the day (see Application Processing Memorandum No. 60). For the irrigation of five acres or less, justification is not necessary for a diversion rate of up to 0.03 cfs per acre (see Application Processing Memorandum No. 17). If the right proposed for transfer is based on a decree or license authorizing a diversion rate greater than 0.02 cfs per acre, then additional justification is not necessary unless:

a. The proposed transfer would change the place of use to a new place of use, rather than simply rearranging acreage at the general location of the existing place of use;

b. The proposed transfer would change the point of diversion with the intent to abandon the existing conveyance system and replace it with a new conveyance system that would reduce conveyance losses; or

c. The proposed transfer would add additional rights to an existing place of use from the same source as the existing water right(s) at the place of use.

(3) State Water Plan. Whether the proposed transfer would be compatible with the objectives and policies of the State Water Plan pertaining to beneficial use and conservation of water resources.

5g. Effect on Economy of Local Area

In the case where the proposed place of use is outside of the watershed or local area where the source of water originates, the department must consider whether the overall effects of the change proposed by the transfer would adversely impact the economy of the watershed or local area. The economic effect of the proposed transfer should be measured by assessing the following factors resulting from the change in use of water:

(1) Changes in Employment. Estimated changes in current and projected short-term and long-term employment;

(2) Changes in Economic Activity. Estimated changes to short-term and long-term changes in economic activity; and

(3) Stability of Economic Activity.

5h. Effect on Agricultural Base of the Local Area

Section 42-222(1), *Idaho Code*, provides that a change in nature of use from agricultural use shall not be approved if it would significantly affect the agricultural base of the local area. Department staff should presume the phrase "change in nature of use from agricultural use" can only be significant if the application for transfer proposes a change in nature of use for irrigation rights. Other water rights may authorize use in a process that is related to agriculture, such as commercial use for a dairy or an industrial use for a potato processing plant, but these uses are usually small enough compared to irrigation uses that a proposed change in these uses is presumed to not be significant. It is possible that a change in nature of use of a fish propagation water right authorizing diversion of a large flow rate might invoke this provision if fish propagation is interpreted to be an agricultural use.

The boundaries of the "local area" may be determined by considering one or any combination of the following:

(1) the boundaries of local government or the combined boundaries of local governments that cooperatively share plans for transportation, recreation, environmental quality, and similar water uses;

(2) the boundaries of any taxing entities or districts created, including school districts, that rely directly upon tax receipts for businesses that might be affected by a reduction in agricultural production;

(3) areas of common socio-economic values and operations, including those created by a) water delivery entities, b) similar agricultural crops grown, or c) the areas where agricultural processing facilities derive the agricultural products processed, or;

(4) natural geographic features that separate various areas, particularly hydrologic basin separations.

Whether the change would significantly affect the local agricultural base may be determined by considering one or any of the following factors:

(1) Financial Impacts on Local Governments. The financial impact the change will have on local governments, combinations of local governments, taxing entities, or districts within the local area that derived income from the agricultural use;

(2) Financial Impacts on Others. The financial impact the change will have on water delivery entities, the ability of farmers to continue to grow and harvest the crops previously grown, and the ability of processors of agricultural products to obtain the products necessary for business viability;

(3) Agricultural Job Displacement. The degree to which those working in agriculture will be displaced or will lose income resulting from the proposed change;

(4) Agrarian Lands. The degree to which agrarian lands are taken out of production; or

(5) Financial Impact on Overall Economy. The financial impact on the overall agricultural economy of a local area.

IN THE

SUPREME COURT

OF THE

STATE OF IDAHO

November Term, 1908

Farmers' Co-operative Ditch Company
(a corporation)
Plaintiff and Respondent

vs.

Riverside Irrigation District, Ltd., et al
Defendants and Respondents.

Nampa & Meridian Irrigation District, Pioneer Irrigation District, Riverside Irrigation District, Ltd., and New York Canal Company, Ltd.,
Defendants and Appellants.

Transcript on Appeal

VOL. II

Appeal from the District Court of the Seventh Judicial District of the State of Idaho, in and for the County of Canyon.

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621- 622	2037-2039
624- 627	2044-2054
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135-1138	3664-3672
138-1139	3673-3675

Ditch.

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313-1314	4219-4223
314-1317	4224-4230
317-1318	4231-4234

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072-1074	3467-3473
075-1076	3474-3477

Ditch.

078-1079	3484-3486
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Company No. 1.

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For Defendant Farmers Union Ditch Co.

Camp, J. G.	1097-1104	3545-3567
McIntyre, G. H.	1104-1108	3568-3577
McIntyre, G. H. (rec.)	1339-1339	4299-4299
Stephenson, D. O. (reb.)	1377-1382	4414-4429
Young, W. A.	1108-1109	3578-3580

For Defendant The Franklin Ditch Company.

Allen, H. E.	915- 920	2975-2989
Cook, L. F.	906- 909	2948-2957
Dodd, D. P.	894- 901	2910-2930
Madden, C. F.	909- 912	2958-2965
Milliner, George	920- 921	2990-2994
Schindler, Adam	901- 906	2931-2947
Stephenson, D. O. (reb.)	1377-1382	4414-4429
Thomas, John	912- 915	2966-2974

For Defendant James L. Graham.

Barber, Thomas	1342-1343	4310-4312
Bingham, Jacob	1342-1342	4307-4309
Catlin, T. C.	1340-1341	4301-4304
Steart, J. M.	1341-1342	4305-4306

For Defendant Silas S. Gray.

Gray, S. S.	816- 820	2653-2664

For Defendant Hamming Ditch.

Catlin, T. C.	984- 987	3190-3197
Hamming, W. J.	988- 989	3202-3204
Hart, E. N.	1013-1013	3281-3282
Stephenson, D. O.	987-988	3198-3201

For Defendant Hart and Davis Ditch.

Catlin, T. C.	981 982	3179-3182
Catlin, T. C. (rec.)	984-984	3180-3180
Davis, Claude	975- 979	3163-3172
Hart, E. N.	982- 984	3183-3188
Stephenson, D. O.	979- 980	3173-3178

For Defendant Jacob Ditch.

Davis, Thomas	1079-1083	3487-3499
Hibbard Charlie	1083-1084	3500-3502
Nick, J. L.	1092-1097	3530-3541
Olden, B. F.	1084-1092	3503-3529
Vance, S. E.	1350-1352	4333-4337

For Defendant William P. Kennedy.

Morris, Thomas	1439-1440	4611-4613
Steart, J. M.	1442-1443	4619-4621
Swalley, B. F.	1440-1441	4614-4618

NW quarter and the lots constituting the N half of the SW quarter, section 8, township 4, N. R. 2 W., are owned by me; there is 148 1-2 acres I should judge, that I irrigate, 8 or 10 acres is wash from the river and I don't have to irrigate that; the other I am irrigating about, 140 acres; this 22 acres that is indicated there as not irrigated is irrigated: there is 6 1-2 acres that is not shown there, there is only 142
2908 acres shown on these lists, it would be 142 1-2 acres; that has been irrigated ever since I have been on the place from this ditch.

CROSS-EXAMINATION BY MR. JACKSON

I own 148 1-2 acres the river has cut in there lately about; I have 148 1-2 acres of irrigable land; all of it is irrigated; I have been irrigating all of it 18 years, ever since I have been there: there is a slough there and I sub irrigate from sloughs, but I flood nearly all of that; I flood anyway 130 acres of it. I never
2909 measured the land I have been flooding, I can't say just how much I have been flooding but I can tell pretty near, I don't know exactly.

The Canyon County Water Company rests its case with the permission of the Court to introduce further testimony at Boise, upon adjournment to that place.

TESTIMONY IN RELATION TO THE FRANKLIN DITCH COMPANY

D. P. Dodd, a witness for the Franklin Ditch Company, testifies.

2910 DIRECT EXAMINATION BY MR. BORAH

I reside about six miles above Caldwell on the

south side of the river in Canyon county, Idaho, and am 68 years of age. I first located on what is known as the Shindler place in 1866. I got the ranch from a man by the name of Boyd. There was a crop growing on the land at the time that I purchased it—there was perhaps 60 acres in grain. I continued to irrigate that land during the season of 1866. I irrigated over 100 acres, hay and all. There was about
2911 60 acres in grain, besides the hay land. The balance I irrigated was grass land in wild hay. I diverted water from the Boise river for that ranch. I tapped it on the ranch above owned by Mr. Young. The point of diversion was the same place exactly as the present point of diversion of the Franklin or Caldwell ditch. I irrigated that land four or five years, when I sold out to a man named Wilson. I had perhaps over 100 acres, making in all 115 to 120 acres. Wilson sold to Adams Schindler.

2912 The ditch from which I originally diverted water for this ranch was called the Stapleton ditch, because Stapleton helped to take it out. A man named Boyd and another man helped. Boyd was the man from whom I purchased. Stapleton irrigated from that ditch when I was there. He had perhaps 50 acres under cultivation. He sold to Thomas Wheatley. Mr. Allen owns that ranch now. I know of my own knowledge that the water has been used upon what was known as the Dodd or Schindler ranch from this
2913 source every year since 1866. There was no person irrigating there in 1866 except those I mentioned. There was irrigation further down the slough. Nearly everybody was irrigating from that slough. I couldn't say who it was, but all those farms were irrigated

from that slough. Robert White was irrigating when I first went there. Mr. Madden resided on the next ranch below White. He was there the first year I went there. Hemenway irrigated afterwards. After I sold to Wilson I purchased a ranch from a man
2914 named Holland. The ranch on which I now reside is a portion of it. I have resided there ever since. I get water to irrigate that ranch out of that slough and out of the Caldwell ditch, or Pioneer Irrigating ditch it is now.

The point of diversion for the water I now use is the same place as for the first ranch I had. I irrigated maybe 70 acres the first year I went on this ranch. I took possession the same year my deed bears date. I increased the acreage perhaps 30 acres af-
2915 erwards. I irrigate at the present time the whole ranch about 205 acres. I helped form the Franklin Ditch Company and was acquainted with the original shareholders of the company. J. H. Carter, Robert White, Thomas Wheatley, A. J. Reagan, John Thomas, Hamilton Davis, G. W. Wooten, A. Cook, J. M. Job and R. N. Potts were the original shareholders.

We all had more or less difficulty in getting water from the small ditches we had and we thought it best to form a large company and build a larger
2916 ditch. We started from the river at this same point as the Stapleton or Boyd ditch was taken from and took it across to the outside slough, and the object was to increase our water supply for after the water went down, with our small ditches it was difficult to get the water through and we thought by combining together it would be easier. The people who had been using water on this slough got together and took the

water out of the river and threw it into this slough. We used the same point of diversion but the ditch
2917 did not quite have the same course. We took it straight across the field, dumped our water into the slough perhaps 30 yards above, after the formation of the Franklin ditch. Each of these parties I have named were irrigating at that time from this slough. By making a rough estimate I think there was about 2,200 acres under irrigation at the time of the formation of the Franklin Ditch Company, by the different original shareholders of that company. The company was formed October 24th, 1880. We continued to di-
2918 vert water from this canal until we sold out to the Caldwell Ditch Company or the Strahorn, a couple of years afterwards. The sale was made to the Idaho and Oregon Land and Improvement Company. It was popularly known as the Strahorn or Caldwell ditch. The point of diversion of this ditch from the river was the same as the Franklin ditch.

When we first organized the Franklin Ditch Company we built a new ditch entirely. I don't know of my own knowledge the size of the headgate. The
2919 parties I have named as the incorporators continued to use the water for irrigating all of their land which they had under cultivation up to the time they sold to the Strahorn people.

We then entered into an agreement for the extension of the ditch. Within two months after that time we commenced working on it and continued the work until it was completed. It was completed in May or June following. The Strahorn people did not enlarge the ditch at the point of diversion. The
2920 ditch continued to be the size it was when the Frank-

lin people bought it until the Pioneer people bought it, at the head of the river. The Caldwell people extended it as far as Indian creek, sufficient to convey water to the town of Caldwell.

BY MR. BORAH

We offer in evidence the agreement made by the Franklin Ditch Company, and the Idaho and Oregon Land and Improvement Company for the transfer of their right. Agreement dated October 2nd, 1883.

2921 The same is admitted in evidence.

The witness continues.

I have made an estimate of the acreage actually under cultivation at the present time under the Franklin Ditch Company proper, by the shareholders. I have a knowledge of the amount of land actually occupied and what waste land there is. I am well acquainted with each and every man's acreage, that is, so much as a man has without asking actual questions; I know the number of acres they own, and that

2922 is the way I form my estimate; of course, it is not correct at all.

Virtually every acre I have I use water on now. I have 205 acres. I have had no experience so far as measuring water is concerned. I was never limited to inches, we always took what we needed, and have always done so since the ditch was built. we were never confined to a certain number of inches. The acreage under the Franklin ditch under cultivation is larger than at the time the ditch company was formed. There

2923 has been an increase in acreage from the formation of that company up to the present time.

CROSS EXAMINATION BY FREMONT WOOD

All the lands originally represented in the Franklin Ditch Company now receive water for their irrigation from this same ditch, delivered under this contract originally made with the Strahorn company 2,400 or 2,500 inches of water was reserved for the owners of those lands. That water has been used
2924 continually since that conveyance was made. I don't know how much the ditch carried in addition to the 2,400 inches after it was extended by the Oregon Land and Improvement Company. It carried four or five times as much as before it was enlarged. That additional amount of water was carried through this ditch ever since last winter, and was distributed around the country on the sage brush land and let it run to waste. We simply took what we needed on the bottom lands. There was two or three years we scarcely
2925 got any water—there was no water in the river. There was no water to be had was the reason of it. I lost two or three crops. For two years I lost the alfalfa crop entirely because I could not get the water out of the river, that was the last two or three years it was in the afterpart of the season. One season this company gave it up entirely. They sent men up there and they couldn't get water for our own use—there was no water in the river. They cleaned the ditch out every spring and I suppose kept it as near
2926 as it was originally in the first place as they could and I know it was ten feet wide on the bottom when it was finished.

The Franklin Ditch Company usually turned out at

the Mason creek crossing, very little, to supply two or three men. There is a large headgate where the water is diverted from the river. I suppose it is calculated to be on a level with the bottom of the river.

We built a tight dam across the river every year.
2927 We never made a dam to bedrock to gather the supply going through the gravel. The first water failure under that ditch was about three or four years ago I guess, of course, every dry season there is a failure. Last year we had plenty of water all the time. Two years or three years before that the water was completely dried up—I think three years ago this coming summer it was dried up entirely and we couldn't get any water in the ditch. There are two channels in the river opposite out headgate. We have to depend for
2928 water on the south channel. The last year or two we had to build a dam in the north channel to turn the water into the south channel. The low water period in the years we were short of water began perhaps after the 1st of August. We had water enough for the first crop of alfalfa. Some years we did not have enough for the second, and not any for the third—that was two years ago and three years ago. We irrigate in ditches in some cases, and in other cases we put dams in the sloughs to sub irrigate, but mostly
2929 by ditches. There is only one main slough, I suppose it is 60 feet wide on the top. There is some timber and brush along this slough; there is some timber land; part of this land is timber land. Since the Franklin ditch was constructed the river in some cases has washed out as high as 80 acres, and in some cases there is no hurt at all. Some of these lands re-

ceive the seepage water from the bench above. Not one thousandth part of the lands receive seepage. The water rises right under the hill. There is al-
2930 ways draws between the hill and the slough that takes off the water. I am not injured on my place over an acre or two. This sub flow is not worth mentioning.

Adam Schindler, a witness for said defendant, testifies as follows:

DIRECT EXAMINATION BY MR. BORAH

I am 72 years of age. I have resided in this vicinity some 23 or 24 years. I first went on the ranch where I now reside in 1888 or 1887. I resided there
2931 at the time of the formation of the Franklin Ditch Company. The Franklin Ditch Company was formed in 1880. I had resided there three or four years prior to that time.

I got title from Todd Wilson. I went upon the ranch shortly afterward.

(Defendant here offered in evidence certified copy of deed from C. T. Wilson to Adam Schindler, dated October 7, 1887, the same being marked exhibit B.)

Witness continues.

2932 I have resided there ever since. My deed bears date October 7, 1877. Before coming there I lived about one year on the Huston Frost ranch. About the time I moved there Robert White was irrigating land under what is known as the Franklin ditch. The Hemingway place was being irrigated when I first knew the country. Mr. Dodd originally owned the place I purchased. The first year I was there there was about 200 acres irrigated. I occasionally in-

creased this acreage—I couldn't tell just how much—
2933 I have about 300 acres under cultivation now. I was one of the parties who joined to form the Franklin Ditch Company—I was one of the office holders of that company.

At the time we formed that company water was conveyed from the river into this first slough by what was called the Stapleton ditch. The Franklin Ditch Company built the ditch larger. We built it ten feet on the bottom and three feet in depth—the grade was about one-fourth inch to the rod. I built the most
2934 of it myself, or managed it. The Franklin ditch as I constructed it in 1880 was of the same size as when we sold it to the Idaho and Oregon Land and Improvement Company. It remained the same size up to the time the Pioneer people bought it. The Strahorn people simply extended it. The ditch was the same size. J. H. Chandler was one of the original incorporators of the Franklin ditch. He had something like 80 acres under cultivation about the time of the formation of the Franklin Ditch Company. I should
2935 judge Mr. Reagan had about 50 acres under cultivation at that time. Mr. Wooten irrigated 200 acres or more, Mr. Job irrigated considerable land, I don't know how much. Mr. Potts irrigated probably 100 acres or more.

The people who constituted the original Franklin Ditch Company got the water from the river, which they had been using prior to the time we constructed the Franklin ditch and they all consolidated and put it into this ditch. They took it out of the slough.
2936 They all changed the point of diversion to the Franklin ditch and took it into the slough at one point.

Prior to that they had been using it from the slough at different points. All of these parties were irrigating land at the same time we formed this company. I have been upon that ranch since I purchased it and irrigated it. In my judgment I suppose in the low time of water it would take an inch and a half to two inches per acre to irrigate that land. The land requires less water during a part of the season. The land is
2937 sand and gravel. I have about 300 acres under cultivation at the present time. This ditch was operated as the Franklin ditch until we sold out to the Strahorn people. All of the original users continued to use out of the ditch until it was sold. At the time I sold out and entered into this agreement to sell to the Strahorn people we were to have 1,350 inches of water carried through the canal proper, and 800 inches delivered into a certain slough—that slough is the first slough from the river and is known as the "North
2938 Slough." There was 350 inches to be delivered on the south part of my ranch right next to the hill where the Strahorn ditch takes out. On the map the slough is marked "B," and the river proper is marked "A." The second delivery of 350 inches is the slough marked "C." The 1,350 inches is water delivered from the canal proper after leaving these two sloughs.

That makes in all, at the present time claimed by the Franklin ditch owners about 2,500 inches of water. The Caldwell or Strahorn people commenced work
2939 under this contract about 6 weeks or 2 months after the execution of the contract. They continued working until it was completed. It was extended to the city of Caldwell; I suppose they delivered water at Caldwell about May or June of the next year contract

since it was made. We have kept up the organization At the time I went there Mr. Reagan, Mr. Potts and Mr. Job were also there. Mr. Hemingway had sold out to someone. Hamilton Davis owned his ranch when I went there.

2940 CROSS EXAMINATION BY MR. WOOD

I own about three hundred and some odd acres under the Strahorn ditch. I own 445 acres, and I think I irrigate about three hundred and some odd acres out of the Strahorn ditch. Eight hundred inches of water was delivered into the Strahorn slough as shown on the state engineer's map. Three hundred and fifty inches was to be delivered here—it is called the Waste slough on this map.; 1,350 inches was to be delivered in the ditch down as far as Mason creek,
2941 out of the main canal, between the head of the main ditch and Mason creek. I took out somewhere about 200 inches at times, and at other times I did not, for my land, out of that 1,350 inches of water—it depends on whether I needed it. I own three shares in the Franklin Ditch Company. Every shareholder took so much water and we kept our company up, and we had to divide this water into shares, after we got the 1,350 inches in the canal. I own three shares and the rest own a share apiece. I own this land in the
2942 northwest quarter of section 24, and the northeast quarter of section 23, particularly here upon the south side of the Caldwell canal. That land is above the Caldwell canal. That land I do not irrigate—I do not count. I simply irrigate between the Caldwell ditch and the river. This land on the state engineer's map being the quarter sections where the ditch heads, was

irrigated mostly from the Eureka ditch. The 800 inches is turned into the north slough for all the parties interested in the ditch; that is the old original
2943 stockholders in the Franklin ditch. I could not tell how much land is irrigated from that 800 inches. It is used by every man who belongs to the Franklin ditch. I raise wheat and oats, potatoes once in a while. I cultivate 125 to 130 acres in grain crop, the rest is in meadow and pasture land; I don't know how much is in meadow, about 100 acres; it is wild grass part of it, and the other part is alfalfa. This was all tame grass but it went back into wild grass.

If the river is well filled with water the ground
2944 subs so that you don't have to irrigate much. I irrigate mostly by ditches. I have made no investigation to determine the amount of water I require. I have never made any tests to determine the smallest amount I could get along with, behause we generally had plenty of water in the river. I mean by my opinion that it would take from one and a half to two inches to irrigate this land, that I think it would take that because there is no bottom like in the sage brush land. The soil in some places is one foot and in some places
2945 ten feet deep, and in some places we have a good top soil, and in some places it is rocks clear to the top. We irrigate the most of it. We have a little soil of course. I don't know in the ordinary irrigating season, how much of the time we have to keep the water on that soil in order to produce ordinary crops—whenever we think it is necessary. I don't know as I can tell hardly what proportion of the time we have to keep water on a given 100 acres of our land in

order to produce an ordinary crop, but I should judge
2946 about half the time.

REDIRECT EXAMINATION BY MR. BORAH

All these people principally took their water from this slough before the construction of the Franklin ditch. They first turned it from the river into this Strahorn slough and afterwards conveyed it from the Strahorn slough into the Waste slough.

The people who organized the Franklin Ditch Company had been irrigating and when they organized the Franklin Ditch Company, they conveyed it through
2947 one ditch from the river to this slough.

CROSS EXAMINATION BY MR. RICE

When we constructed the Franklin ditch the lower end was right near my house. The Franklin Ditch Company extended from what is called the "Headgate on this map to the blue line on the West slough (indicating) and from the West slough on was what the Strahorn people built.

L. F. Cook, a witness for said defendant, testified as follows:

2948 DIRECT EXAMINATION BY MR. BORAH

I reside about three miles east of Caldwell and have resided there since 1879. I was one of the original incorporators of the Franklin Ditch Company, and got my ranch from Marion D. Mason.

When I got the land there was about 50 acres that had been plowed and cultivated. I commenced to irrigate as soon as I went there in April, 1879. I irrigated the biggest part of the ranch in hay and grain.

I bought something near 320 acres. There must
2949 have been 200 acres that I irrigated with water. I have resided there ever since and have continued to irrigate that land ever since. I think I have put 50 acres more under irrigation; I have under cultivation I should say 250 acres. I have irrigated that 250 acres pretty nearly ever since I have been there. I increased the acreage to that extent shortly after I went there, and irrigated it ever since. I got water, most of it, from the Franklin ditch. Prior to the formation of the Franklin Ditch Company I got it
2950 from that slough and some through sloughs a little below there. We just plowed and scraped it out; that was to where the water come out and that water came in. We didn't do anything, just threw up a little dam, to transfer the water from the river into the sloughs. Mr. Carter irrigated in 1879 nearly all of his land. I would have to guess at the amount. I think 320 acres or a little more, but the biggest part of it was under the Franklin ditch. He was irrigating a good portion of it, but I couldn't say how much he had in
2951 cultivation. I think Robert White had 100 acres irrigated. The Hemingway or Hamilton Davis place was being irrigated at the time I went there. The Potts' place was under irrigation and the Job ranch also. All these parties secured water from the river the same way I did before we organized the Franklin Ditch Company. In 1880 the water got short and we organized the Franklin Ditch Company. We were all using water from the same slough. At the time the Franklin ditch was con-
2952 structed I think the headgate put in was 11 feet wide at first—the canal was the same width on the bottom as

the headgate, either ten or eleven feet, and it was three or four feet deep. There was about 17 of us used water from the Franklin ditch after the organization of that company. The names are the same parties mentioned in the first meeting. The Franklin ditch measured the same size at the construction that it was when the Pioneer people purchased it.

I could hardly say how much water it would take
2953 per acre to irrigate that land. There was places where it was pretty close to the river, and at a low stage when the river was low I don't know whether two inches to the acre will irrigate it or not. I think I have some land on my place pretty close to the river, and I have been trying to irrigate alfalfa on it, and I don't think that two inches of water to the acre will irrigate that. One acre with another generally through there, in my opinion, would require probably an inch to an inch and a half to the acre.

2954 . The point of diversion of the Franklin ditch is right at the same point as the old Stapleton ditch was.

CROSS EXAMINATION BY MR. RICE

A portion of this 250 acres is irrigated from the Mason Creek Ditch Company. It has been since the Franklin Ditch Company was formed from the Mason creek slough. That is a separate ditch from the Franklin. All of my land is under the Mason creek but about 80 acres. I don't hardly know how much is irrigated from the Mason creek ditch. The water all
2955 comes in together from the Franklin ditch to the Mason creek ditch and I use it that way and couldn't hardly say how much I use from each one.

CROSS EXAMINATION BY MR. WOOD

I own one share in the Franklin Ditch Company and have owned that ever since the company was organized, and I irrigate my land with the water represented by that one share. I have one share in the Mason creek ditch; I have forgotten how much one share there represents. I believe we thought some-
2956 thing like 5,000 was first recorded there.

CROSS EXAMINATION BY MR. RICE

I think there are ten shares in the Mason Creek Ditch Company.

BY MR. WOOD

There is only about 20 acres of my land on the first bench back from the river bottom that is watered, that is under the Franklin ditch. I don't know much about measuring, nor how much water it would take or how big a ditch to carry it, or how much land could be
2957 irrigated with 100 inches of water continuously used with the land properly prepared. These are big sloughs that this water is turned into; they must be 25 or 30 feet wide. A good many of them are grown up with brush and timber. There is nothing done to clean them out except where there is a small slough that is used for a ditch, say two feet deep, that is generally cleaned out. I don't know anything about what loss there is by waste and evaporation through the big sloughs down to where I take water out.

2958 C. F. Maddin, a witness for said defendant, testifies as follows:

DIRECT EXAMINATION BY MR. BORAH

I am 75 years old and reside five and a half miles east of Caldwell in Canyon county, Idaho, under the Caldwell or Pioneer ditch. I have lived there about 15 or 16 years. Prior to that I resided just a half mile north of there. I went to reside on that ranch in February, 1865. My daughter now owns that ranch. I irrigated some of that land in 1866, I think about
2959 50 acres that was in grain. I irrigated the next year. I continued to live on that place and irrigate the land until about 15 years ago, and then moved onto the present place. I am one of the original incorporators of the Franklin ditch. I got water from the Boise river to irrigate this land in 1866. I took it out of the slough that the Franklin ditch was afterwards built from. Late in the season I had to cut the bar out and let the water in, and then I dammed the other sloughs off. I continued to irrigate in the
2960 same way as just described until the Franklin ditch was organized. Over 200 acres was irrigated at the time that the Franklin ditch was incorporated in 1880. That same land has been irrigated from the same source ever since 1866. At the time the Franklin ditch was organized the ditch was enlarged and all the parties who had been diverting from the different points along this slough took the water from the river at one point. A man named McKane owned the ranch I now own prior to the time I acquired title to it. At
2961 the present time I have practically all of it, 160 acres, in cultivation and secure water through the Franklin ditch as a shareholder. I recorded 2,000 inches of water in that slough prior to the time we made the

deal with the Caldwell people. There was quite a number irrigated from that slough in 1866. Robert White and James McKane were there and irrigating. James McKane was living on what is known as the Carter ranch and irrigating practically all of his place. I think. He sold out to Carter, and Carter was one
2962 of the original incorporators. John Stapleton owned the land that Mr. Allen now owns. Mr. Hemingway was irrigating from this slough at that time, I think about 160 acres. At that time every man who was there owned 160 acres. Some had a good deal more fenced in, but they all claimed 160. Hemingway sold to Mott, and Mott sold to Baker and Baker to Davis.

Mr. Potts was there irrigating from this slough when I went there. I think Mr. Hesse owns the ranch he owned at that time. I reside at the present time
2963 in sections sixteen and twenty-two, and the land I originally located was on the south half of the SW quarter of section 16, and the north half of the northwest quarter of section 21, and I put the water into the slough through the land of John Stapleton and from there I conveyed it from what is known as the Waste slough to my ranch.

CROSS EXAMINATION BY MR. WOOD

I have one share in the Franklin ditch. I have had one share from the commencement of its incorporation.
2964 There was 160 acres in the tract I first owned and which is owned by my daughter now. There is 160 acres in the tract I own now. That represents my entire holding, past and present, under this ditch. I water now with the water derived from the one share in the Franklin ditch, most of that land on the south

ranch, the ranch where I now live. I use a part of it on the other ranch. My daughter's ranch is irrigated from a ditch from Ten Mile creek, which takes up the seepage water, and a slough.

2965 CROSS EXAMINATION BY MR. RICE

George Wooten was on the land afterwards owned by Mr. McIntyre, now owned by Milliner. He got one share in the Franklin ditch.

REDIRECT EXAMINATION BY MR. BORAH

We had to irrigate this timber claim.

John Thomas, recalled as a witness for said defendant.

DIRECT EXAMINATION BY MR. BORAH

I am pretty near 70 years old and have resided in
2966 Caldwell for the last four months. When ranching I resided about four miles and a half east of Caldwell on the river; I resided there pretty nearly 40 years. I came there in 1866. I began to irrigate the land that I located on, in 1867. I purchased it from Bowden. I got there in the fall—there was land on that ranch irrigated before I went there. I think I irrigated 60 acres in grain in 1867, that was all at that time. In succeeding years I irrigated more land. I resided there ever since except one year I lived in Boise City until I
2967 come to Caldwell. The land I irrigated in 1866 has been irrigated every year since that time. I own that land now. I use all that land for farming at the present time. There is on one place 150 acres and in the other 107, a part of it has washed off.

I was one of the original incorporators of the Franklin ditch. The first years we got water out of the same slough that threw the water into the Strahorn slough and transferred the water into this Waste slough. I irrigate from what is known as the first
2968 slough next to the river. I first settled on the lower tract of the two tracts of land marked on the map "John Thomas;" that was in 1866.

That tract has been irrigated since 1866 from this slough or through ditches since constructed. After the Franklin ditch was constructed water was conveyed from the ditch and taken out by different means; about the same point where the Franklin ditch heads.

The amount of water it takes to irrigate per acre depends considerably on what kind of ground it is. I
2969 think about one inch to the acre is sufficient if you get it regularly.

I have got about 150 acres under cultivation on them two places, outside of the timber; we don't use water on the timber if the river is high; if it isn't we have to water to a certain extent.

CROSS EXAMINATION BY MR. RICE

I have got another place that is watered out of the Mason creek ditch, that is below. I irrigate a portion of this 156 acres that I spoke of irrigating now from
2970 the Mason creek ditch. There are places I couldn't get the water over from the Strahorn ditch. I have no interest in the Mason Creek Ditch Company. I bought this place from Mr. Plowhead. They claim he has an interest in it. I didn't buy it from Plowhead, but through a son of mine who bought if from Plow-

head. That place isn't shown on the map. It joins on Mr. Whitney on the north side.

REDIRECT EXAMINATION BY MR. BORAH

Mr. Hemingway and Mr. Madden were my neigh-
2971 bors when I went there in 1866; they were irrigating their lands from the same slough. I think Mr. Hemingway had 120 acres under cultivation in 1866, and he sold to Baker and Baker sold to Mott and Mott sold it to Hamilton Davis. I don't recollect any others in 1866. The land in that vicinity was all irrigated from the same slough clear down to the end.

CROSS EXAMINATION BY MR. WOOD

The river washed away about 40 acres of my land and on the lower place as near as I can recollect, eight
2972 or ten acres; I never measured it. It was pretty close to 50 acres. Right here (indicating on map) is where the river cut off about 40 acres. I couldn't tell when it was. It washed the eight or ten acres off the lower place about the same time; a little every year, but the other 40 acres went at one time. Since I settled on this land the river has enroached all along the south side there considerably—some land, more. Mr. Boyd and I lost the most; I don't think the others lost so much. I had one share in the Franklin ditch; I have
2973 that ever since it was built. I have irrigated the land with the water represented by this one share, these two pieces. I had to take the water for the upper place out of this slough where the land washed off, and I had an extra ditch there from the same slough.

CROSS EXAMINATION BY MR. RICE

This piece I spoke of being irrigated from the Mason creek ditch is north of Whitney's. We consider the Mason creek slough the same water as the Franklin, the sloughs all come together and we con-
2974 sider it the same water.

REDIRECT EXAMINATION BY MR. BORAH

The Mason creek water and the Franklin creek water all come into the same slough. There is not any practical way to tell what amount I take from one and what from the other. I have been irrigating this land from this slough since 1866 and I own one share in the Franklin Ditch Company and have owned it since its organization.

H. E. Allen, a witness for said defendant, testifies
2975 as follows:

DIRECT EXAMINATION BY MR. BORAH

I reside eight miles east of Caldwell and own the Thomas Wheatley ranch. I got it from George Bucknniller, who got it from Wheatley. I am irrigating 75 acres at the present time. I have resided there three years on the 17th of March. In my opinion that land requires one inch per acre of water. I am secretary of the Franklin Ditch Company and have charge of the records of the company.

2976 This book contains the minutes of the Franklin Ditch Company since its organization. The minutes of the organization of the company are found on page 1, and are continued on pages 2 and 3.

(Defendant offers in evidence pages 1, 2 and 3 of the

minute book of the Franklin Ditch Company, as exhibit C, and the same is attached hereto as defendant's exhibit C.)

Witness continues.

Pages 4 and 5 show the minutes of the second meet
2977 ing of the organization of the ditch company, bearing date October 6, 1880.

(Defendant offers in evidence pages 4 and 5 of the minute book exhibit C, giving the names of the shareholders or incorporators and the same is admitted in evidence, and is attached hereto as a part of said exhibit C.).

Witness continues.

This page 5 contains the names of the original incorporators, the original shareholders of the Franklin
2978 Ditch Company. I have a record of the transfers of the original shareholders so as to show who are the present shareholders. Mr. Milliner is a present shareholder, 125 acres; Well, Painter & Cooper are the shareholders for the Job ranch, 125 acres; Hesse is the present owner of the Potts ranch, shareholder, 125 acres; his predecessor I believe was Potts. Williams is a present shareholder, 100 acres, it is a part of the Carter holdings; next the Davis ranch, it is now held by the heirs and the administrator, John Daly, is one of
2979 the heirs—there are 150 acres. Click is a present shareholder, 100 acres; I am a shareholder for the Wheatley ranch. Mr. Carter has interests there, 80 acres under water.

The list I have just given, together with the witnesses who have been on the stand, constitute the present shareholders.

Under this agreement between the Franklin Ditch

Company and the Idaho and Oregon Land and Improvement Company there is 800 inches to be delivered
2980 into the north slough, which is the slough next to the river—it is called the Strahorn slough.

The 350 inches was to be delivered in the south slough or Waste slough. The 1,350 inches are delivered from the headgate of the Caldwell canal to Mason creek. As I understand it, 800 inches is turned into the Strahorn slough, 350 inches to the Waste slough and the other 1,350 inches goes from the different points on the Caldwell canal.

CROSS EXAMINATION BY MR. WOOD

2981 There are 17 shares. There are eight in the list of names I have just given. The balance are owned by Mr. Schindler, three shares; Mr. Cook one share, Mr. Thomas owns one share, Mr. Madden one share and Mr. Dodd one share. As to the other two perhaps I have omitted to give some who were on the witness stand. I certainly did because there are that many shares. Mr. Milliner has under cultivation and watered from this canal 125 acres. Mr. Milliner's share represents 79 inches out of the 1,350 inches, besides
2982 his interest in the slough. We determine that by dividing 1,350 inches with 17 shares. We do that because each are partners. We divide the amount of water carried through the Strahorn ditch by the number of shares and that gives 79. I don't know why we didn't divide the 2,500 inches by that amount —the contract calls for that amount of inches. We don't consider that our rights are limited to that 1,350 inches in the Caldwell canal, besides that are the 800 inches which goes into the north slough parallel to the

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river and which goes into the slough before it goes into the headgate in the Caldwell canal; this irrigates quite a large portion of this country which it would be impossible to irrigate from the Caldwell canal. The Caldwell canal throws out this 800 inches for us. It goes above their canal, this ditch does, about 20 or 30 feet above the headgate. It flows parallel to the river nearly to the canyon. This water never goes into the Caldwell canal. The 350 inches is taken out of the south slough and it runs into the Caldwell canal about a half a mile, I should judge. This 800 inches is taken through sloughs without running into the Caldwell canal at all. According to our contract the Pioneer Irrigation District agreed to deliver this water; they put dams in the river so it will run into these canals. And then 1,700 inches are run through the Caldwell ditch. Our company has a deed for it from the Caldwell ditch.

By Mr. Wood: That deed calls for 1,350 inches. I determined the acreage under this canal by consulting the parties and my own personal knowledge. Four of the ranchers I consulted personally and from my own knowledge I obtained three of the places, from my own individual knowledge. Four places, Williams, Click, Allen and Carter are from my own knowledge. Carter owns 80 acres under the Franklin ditch and it is all under cultivation, there is no waste land on it, there is also one slough. I should say an acre is used for buildings or corrals. His deed calls for 125 acres and I have taken out his waste land. This 80 acres is actually watered from the Caldwell canal. I have measured my own and his land is larger than mine, but to be safe I put it at 80 acres, but possibly it is 90.

I have 75 acres—I own 138 acres and 14 acres is under the Phyllis. I measured this a year ago and I measured it again this spring. I irrigate about 10 acres from my own share in the Franklin ditch company coming out south of the farm. I irrigate about 20 acres from a tap above that owned by Mr. Schindler and the balance I irrigate from this back slough, it is
2987. impossible to irrigate from the front. I say that I use enough to irrigate ten acres. I didn't say I use 79 inches. That is where I use that share.

BY MR. RICE

I refer to the original contract made between the Franklin Ditch Company and the Oregon Land and Improvement Company. This 800 inches that is turned into this first slough is thrown in there by the Pioneer Irrigation people, but they don't carry it through their ditch. It is taken in the slough above under the con-
2988 tract and the Pioneer Irrigation District keeps up the headgate; the original owners kept it up before them. This 1,350 inches from the canal proper and 350 inches and 800 inches was all used by the original owners under the Franklin ditch to irrigate this land I have been talking about.

RECROSS EXAMINATION BY MR. WOOD

Nelson C. Click owned one share of stock, he has 100 acres under cultivation. I determine that from the size of my farm. Mr. Carter measured mine and I know his
2989 extended further than mine and I put it a rather short to be safe. I have been all over it. I was over it last year. His land was cultivated last year to alfalfa and the rest of it was in pasture and timber. I couldn't state

what part was in alfalfa. About half way through the farm from each line. The north part was in timber.

George Milliner a witness for said defendant testifies as follows:

DIRECT EXAMINATION BY MR. BORAH

I am a shareholder in the Franklin Ditch Company
2990 I suppose I irrigate between 100 and 125 acres from that ditch. I have been irrigating that land for three years. Mr. McIntyre was my predecessor in interest. His predecessor in interest was a man by the name of Heaton, George Heaton. I think he was one of the original incorporators. I think it will require fully an inch to the acre to irrigate the land I own.

CROSS EXAMINATION BY MR. WOOD

I got the water for that land from the Caldwell canal and the slough. I took it out of the canal above
2991 Mason creek. I own altogether 320 acres. I irrigate the south part of it from this ditch, that part of it that lies south of the Mason creek slough, and some from the slough. I don't irrigate a great deal north of the slough. I try to use the quantity of water and I know more about that than I do of the acreage of the land. For the rest of my land I get water from different sources. I think I have 100 acres south of the slough.

I have never measured it. I irrigate the most of
2992 the land north of the slough from Mason's slough.

BY MR. BORAH

I desire to introduce as exhibit D deed from Dodd and wife to Wilson for the purpose of fixing the date.

and I will say that the original appropriation of Mr. Dodd was with the original incorporator, Adam Schindler.

We desire also to have the record show that the articles of incorporation of the Franklin Ditch Company were filed October 29, 1880.

2993 We further wish to have the record show that we introduce in evidence the deed or copy of the deed from the Franklin Ditch Company to the Idaho and Oregon Land and Improvement Company, under date of June 24, 1884. I have to introduce this record in order to get in this resolution. They deed all of it and then deeded back this 1,350 inches.

Then the deed from the Oregon Land and Improvement Company covering this 1,350 inches under date of December 4, 1884, we will have to supply copies from

2994 the record, I have an abstract here.

The Franklin Ditch Company rests.

Testimony in relation to the Mason Creek Ditch Company.

C. F. Madden, called as a witness by said defendant, testified as follows:

DIRECT EXAMINATION BY MR. GRIFFITH

I have known the Mason slough since 1865; it has been used for irrigating purposes all the way down from Mr. Schindler's to the canyon. We always

2995 termed it the "outside slough." There is water run into that slough near my place for irrigating purposes. The water has been turned in there for irrigation since the fall of 1866. I dammed the slough off; it was a large slough coming out of the river. The next year—probably a year or two after that, the people

COPY

DISTRICT COURT - SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho
SEP 23 2010
By _____ Clerk
_____ Deputy Clerk

Attorneys for Claimant and Objector
Pioneer Irrigation District

Scott L. Campbell, ISB No. 2251
Andrew J. Waldera, ISB No. 6608
Dylan B. Lawrence, ISB No. 7136
MOFFATT, THOMAS, BARRETT, ROCK & FIELDS, CHARTERED
101 S. Capitol Blvd., 10th Floor
Post Office Box 829
Boise, Idaho 83701
Telephone (208) 345-2000
Facsimile (208) 385-5384
18946.0137

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT

OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA Case No. 39576	Subcase Nos. 63-00166A 63-00166B 63-00167A 63-00167B 63-00179A 63-00179C 63-32580 **AFFIDAVIT OF JENNIFER STEVENS, PH.D.**

STATE OF IDAHO)
) ss.
County of Ada)

Jennifer Stevens, Ph.D., having been duly sworn upon oath, deposes and states as follows:

1. I am over 18 years of age and I make this affidavit based upon my own personal knowledge.

2. I have been retained by Pioneer as an expert witness regarding historical research matters in the above-captioned matter. I hold a Ph.D. in American History; a Master of Arts Degree in American History; and a Bachelor of Arts Degree in both History and Political Science. Attached as Exhibit A hereto is a true and correct copy of my curriculum vitae.

3. Attached hereto as Exhibit B is a true and correct copy of a map dated March 1900 and entitled "Map to Accompany Plan of the Pioneer Irrigation District for the Construction of Works and the Acquisition of Property in Canyon and Ada Counties, Idaho." I obtained this map from collection "AR 20" at the Research Center at the Idaho State Archives offices located at 2205 Old Penitentiary Road Boise, Idaho 83712. That collection contains historical documents of what was previously known as the Idaho Department of Reclamation.

4. Attached hereto as Exhibit C is a true and correct copy of a "Map of the Pioneer Irrigation District" dated May 18, 1901. I obtained this map from the Commissioners' Minutes in the Canyon County Recorder's office located at 1115 Albany St., Caldwell, Idaho 83605.

Further your affiant sayeth naught.

Jennifer Stevens

Jennifer Stevens, Ph.D.

Lela Peña NOTARY PUBLIC STATE OF IDAHO

SUBSCRIBED AND SWORN to before me this 24th day of September, 2010.

Lela Peña

NOTARY PUBLIC FOR IDAHO
Residing at Boise, Ada County
My Commission Expires 5-31-2012

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 28th day of September, 2010, I caused a true and correct copy of the foregoing **AFFIDAVIT OF JENNIFER STEVENS, PH.D.** to be served by the method indicated below, and addressed to the following:

Mason Creek Ditch Company
Represented by:
Albert P Barker
BARKER ROSHOLT & SIMPSON LLP
1010 W. Jefferson, STE 102
P.O. Box 2139
Boise, ID 83701-2139

(X) U.S. Mail, Postage Prepaid
(X) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Franklin Ditch Co.
Represented by:
Jon C. Gould
Daniel V. Steenson
Ringert Clark Chartered
P.O. Box 2773
Boise, ID 83701

(X) U.S. Mail, Postage Prepaid
(X) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Martin Galvin
P.O. Box 115
Middleton, ID 83644

(X) U.S. Mail, Postage Prepaid
( ) Hand Delivered
( ) Overnight Mail
( ) Facsimile

John J. McEvoy
1703 N. KCID Road
Caldwell, ID 83605

(X) U.S. Mail, Postage Prepaid
( ) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Director
IDAHO DEPARTMENT OF WATER RESOURCES
322 E. Front Street, 6th Floor
P.O. Box 83720
Boise, ID 83720

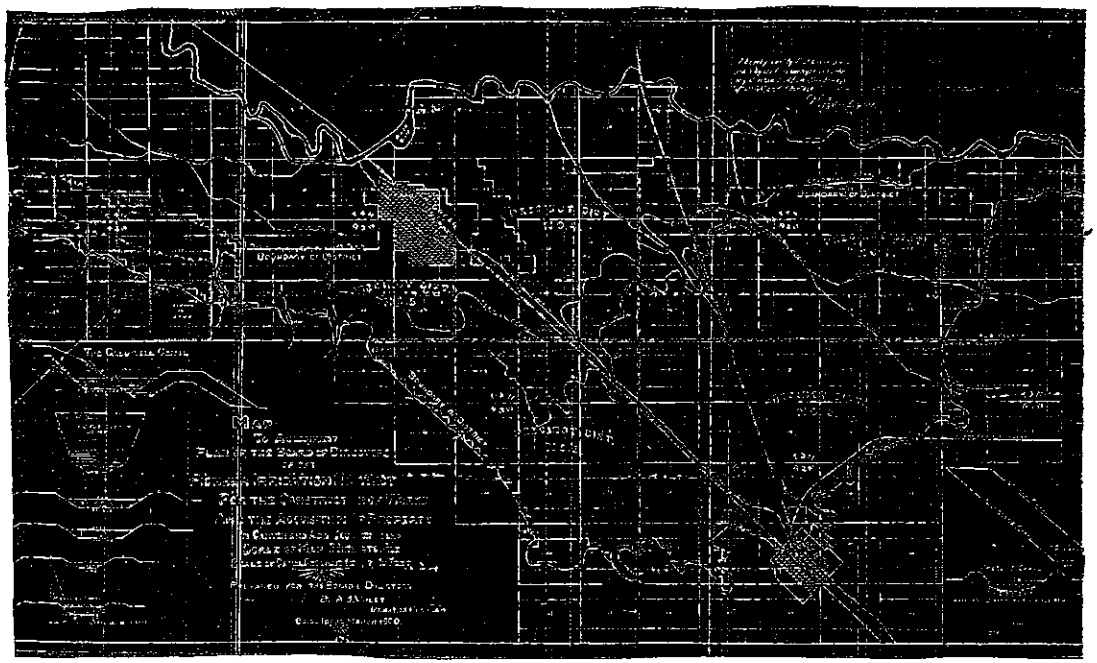
(X) U.S. Mail, Postage Prepaid
( ) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Dylan B. Lawrence

EXHIBIT A

To the Affidavit of Jennifer Stevens, Ph.D.

In Re SRBA Case No. 39576
Subcase Nos. 63-00166A, 63-00166B, 63-00167A,
63-00167B, 63-00179A, 63-00179C, 63-32580

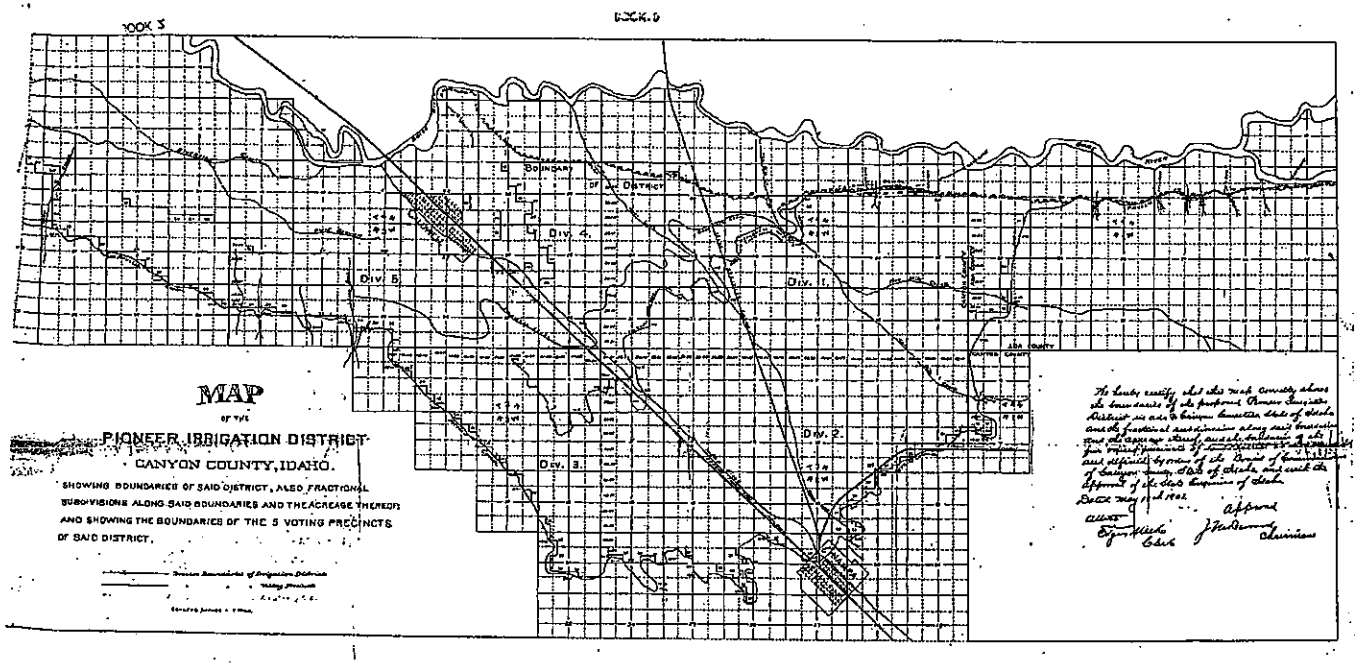


COPY

EXHIBIT B

To the Affidavit of Jennifer Stevens, Ph.D.

In Re SRBA Case No. 39576
Subcase Nos. 63-00166A, 63-00166B; 63-00167A,
63-00167B, 63-00179A, 63-00179C, 63-32580


BOOK 5
BOOK 6
BOUNDARY OF DISTRICT
Div. 1
Div. 2
Div. 3
Div. 4
Div. 5
MAP
OF THE
PIONEER IRRIGATION DISTRICT
CANYON COUNTY, IDAHO.
SHOWING BOUNDARIES OF SAID DISTRICT, ALSO FRACTIONAL SUBDIVISIONS ALONG SAID BOUNDARIES AND THE ACREAGE THEREOF AND SHOWING THE BOUNDARIES OF THE 5 VOTING PRECINCTS OF SAID DISTRICT.

PID001038

COPY

DISTRICT COURT - SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho
SEP 28 2010
By _____ Clerk
Deputy Clerk

Attorneys for Claimant and Objector
Pioneer Irrigation District

Scott L. Campbell, ISB No. 2251
Andrew J. Waldera, ISB No. 6608
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18946.0137

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT

OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA Case No. 39576	Subcase Nos. 63-00166A 63-00166B 63-00167A 63-00167B 63-00179A 63-00179C 63-32580 **AFFIDAVIT OF SCOTT KING, P.E.**

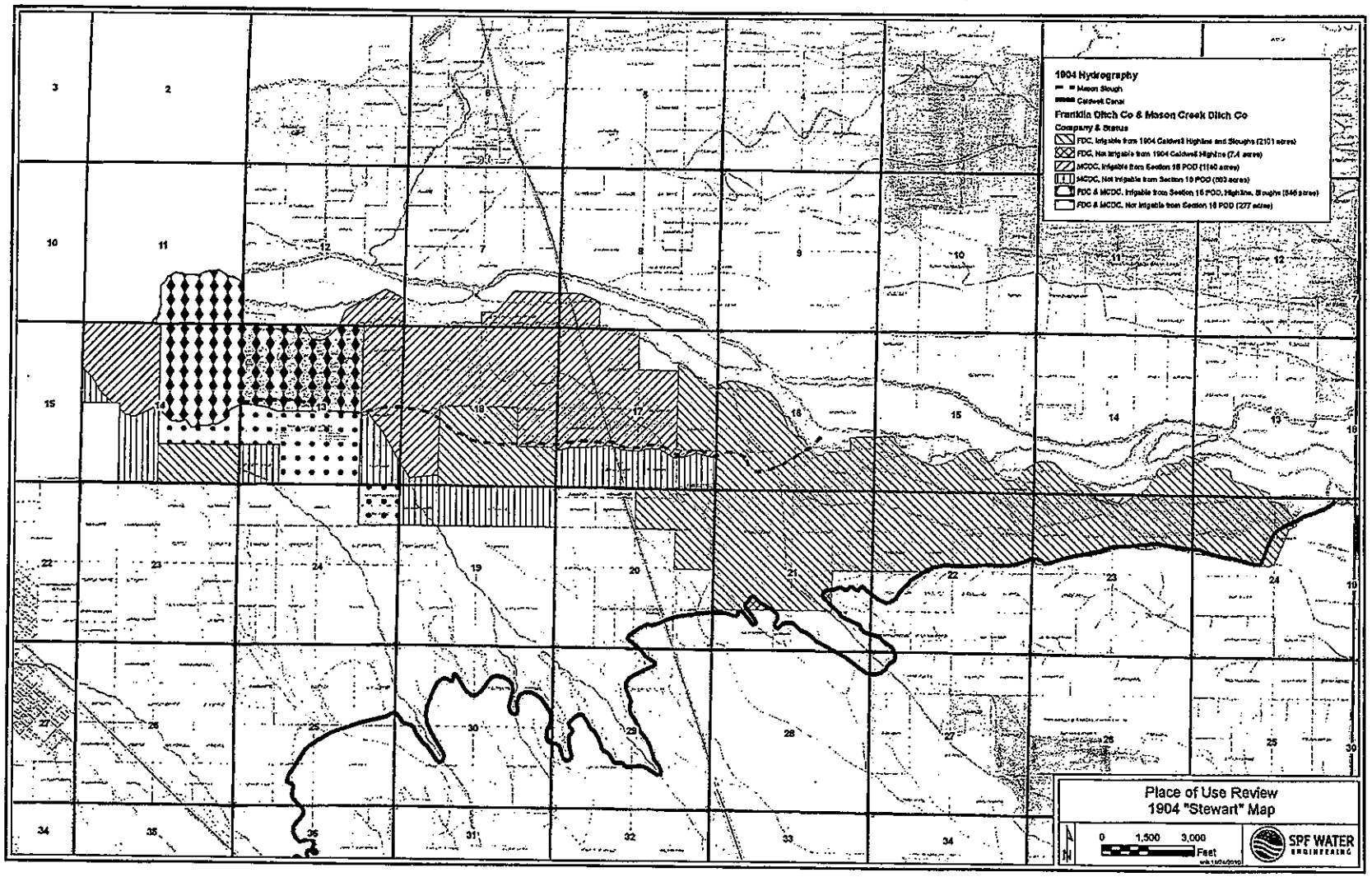
STATE OF IDAHO)
) ss.
County of Ada)

Scott King, having been duly sworn upon oath, deposes and states as follows:

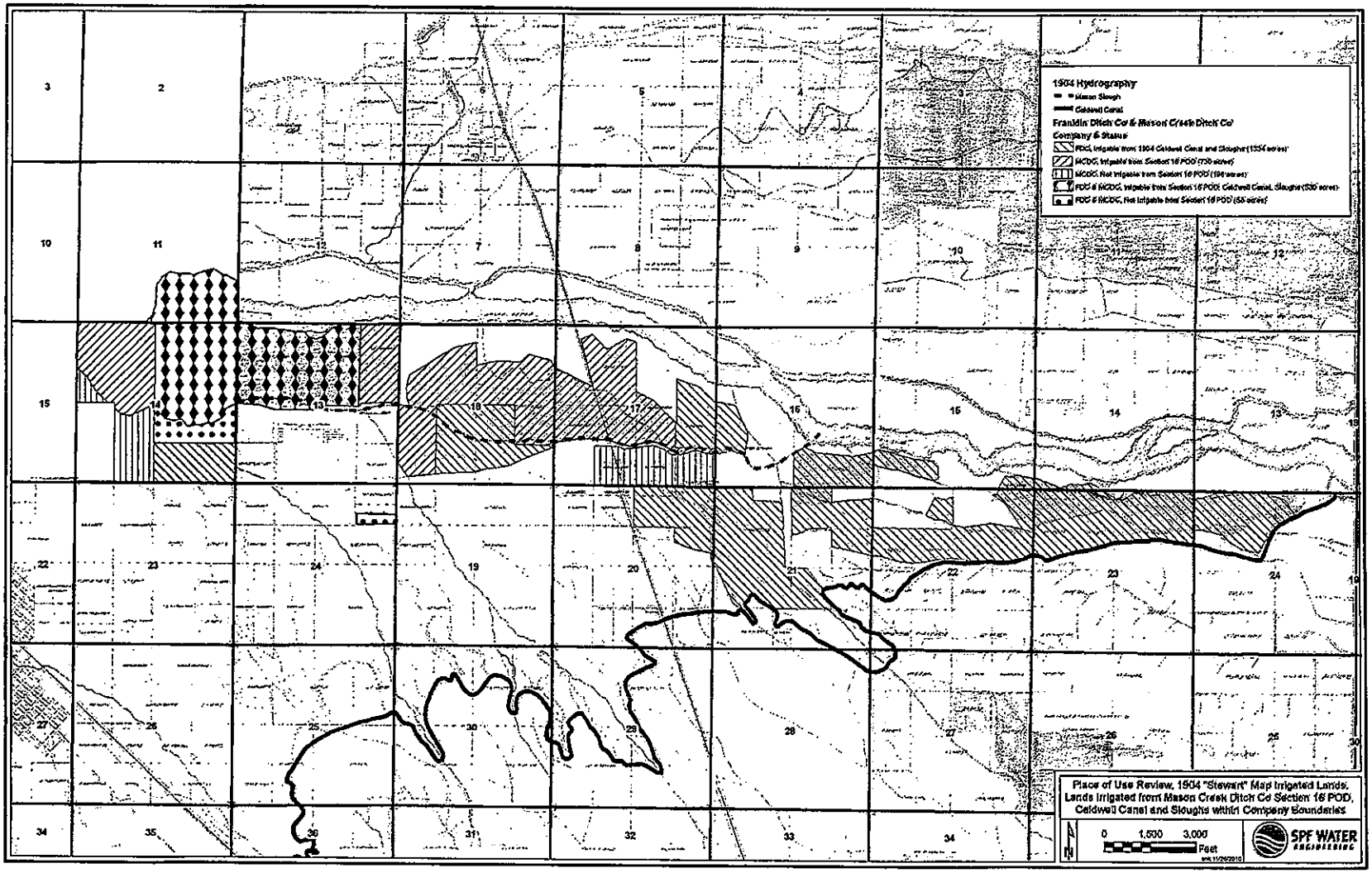
1. I have a Bachelor of Science degree in General Engineering from Idaho State University, and a Master of Science Degree in Civil Engineering from the University of

Idaho. I am a certified Professional Engineer by the State of Idaho (No. 7914, 1995), and a certified Water Right Examiner by the State of Idaho (No. 11-133). I have over 19 years of professional and academic experience in water resource engineering. I am currently a Supervising Engineer with SPF Water Engineering, LLC, where I have worked from 2005 to the present, and where I specialize in water right issues, water flow measurement, pumping system design, water well design, and geographic information systems (GIS). Prior to my employment with SPF, I worked at DHI, Inc. from 2004 to 2005, where I was responsible for the development of various surface water models, and at the Idaho Department of Water Resources from 1990 to 2004, where I worked in a variety of positions, including Technical Engineer in the Adjudication Bureau, Staff Engineer in the Water Distribution Section, in the Western Region's Safety of Dams Unit, and in the Energy Division. My curriculum vitae is attached hereto as Exhibit A and accurately depicts my educational and professional background.

2. Attached hereto as Exhibit B is a map that I prepared which depicts the water conveyance facilities which I believe were historically utilized by the Franklin Ditch Company, based upon my review of the testimony of Franklin representatives during the Stewart Decree proceedings, the 1883 agreement between Franklin and the Idaho & Oregon Land Improvement Company, copies of maps located at IDWR's Western Region office, which may be identified as "Boise River Survey of 1904" prepared by the Office of State Engineer, and my own personal observation of the Caldwell Highline Canal, the various sloughs, and other water conveyance facilities in the area. This map consists of a true and correct copy of a portion of the "Boise River Survey of 1904" map prepared by the Office of State Engineer, which I obtained in digital format from IDWR's State Office, located at 322 East Front Street, Boise, Idaho, and which IDWR representatives referred to as one of the "Stewart Decree maps," with highlighting

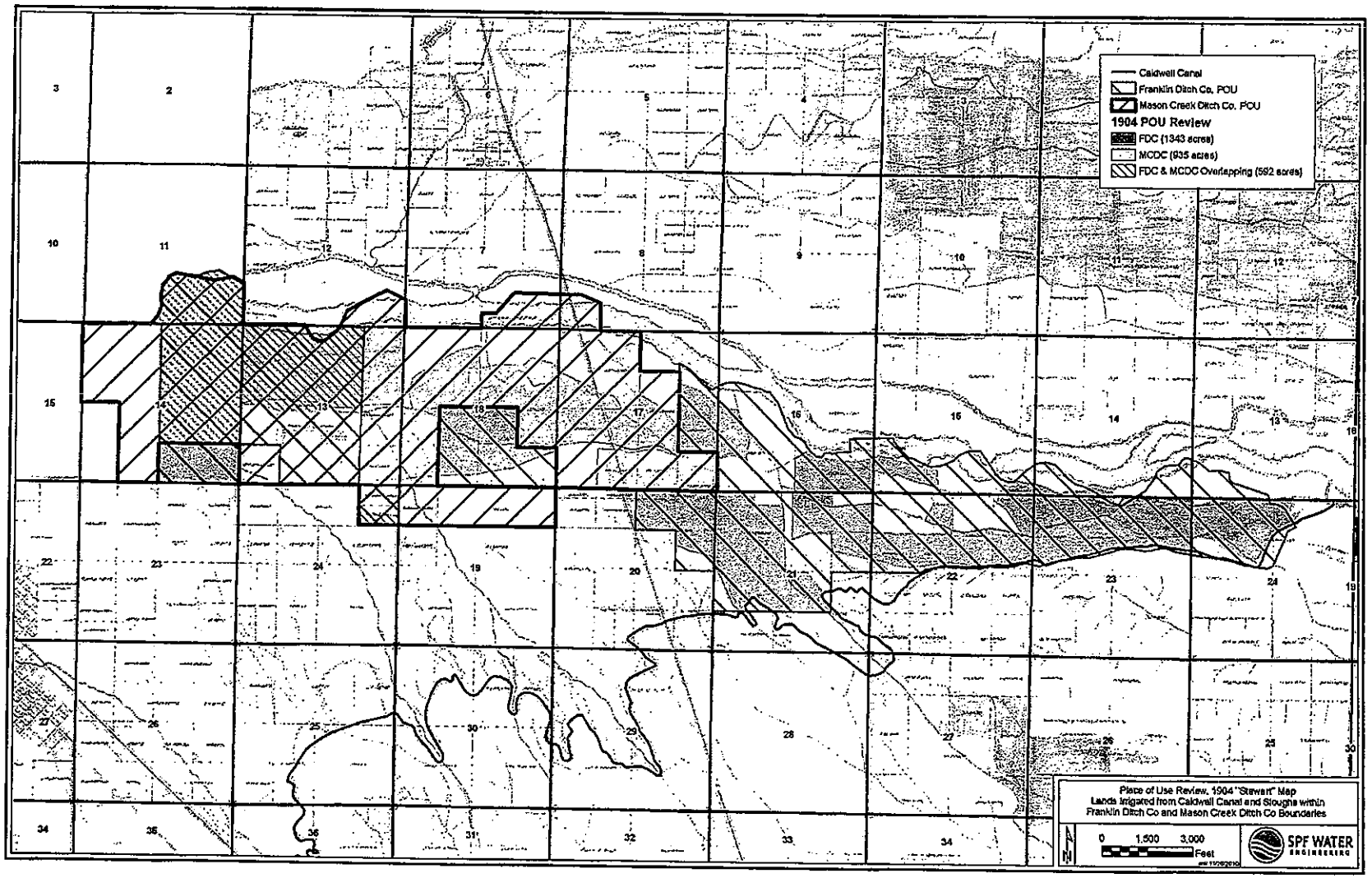

1904 Hydrography
Mason Slough
Caldwell Canal
Franklin Ditch Co & Mason Creek Ditch Co
Company & Status
FDC, Irrigable from 1904 Caldwell Highline and Sloughs (2101 acres)
FDC, Not Irrigable from 1904 Caldwell Highline (7.4 acres)
MCDC, Irrigable from Section 18 POD (1140 acres)
MCDC, Not Irrigable from Section 18 POD (903 acres)
FDC & MCDC, Irrigable from Section 18 POD, Highline, Sloughs (546 acres)
FDC & MCDC, Not Irrigable from Section 18 POD (277 acres)
Place of Use Review
1904 "Stewart" Map
0 1,500 3,000
Feet
SPF WATER ENGINEERING

PID001104

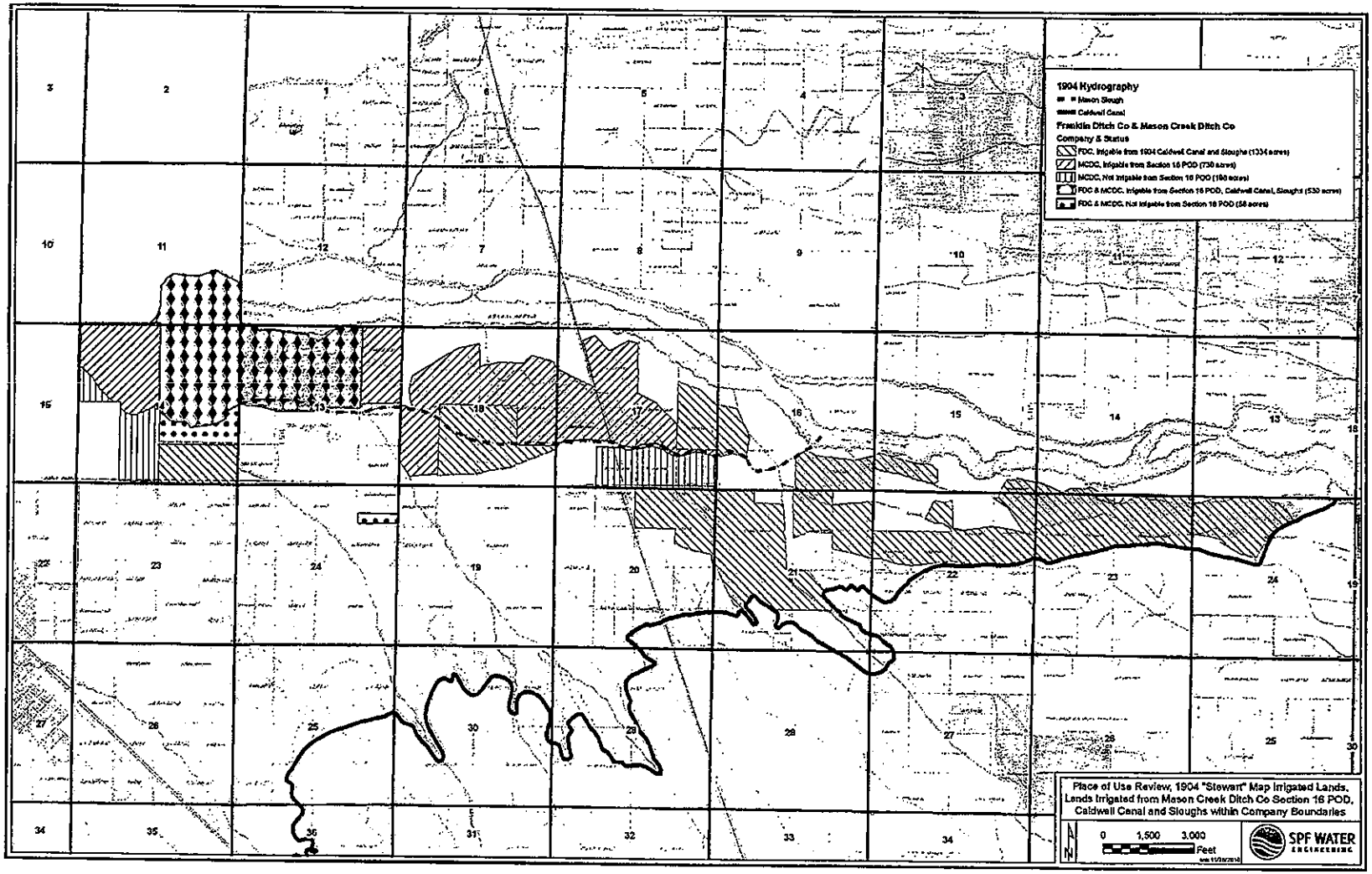


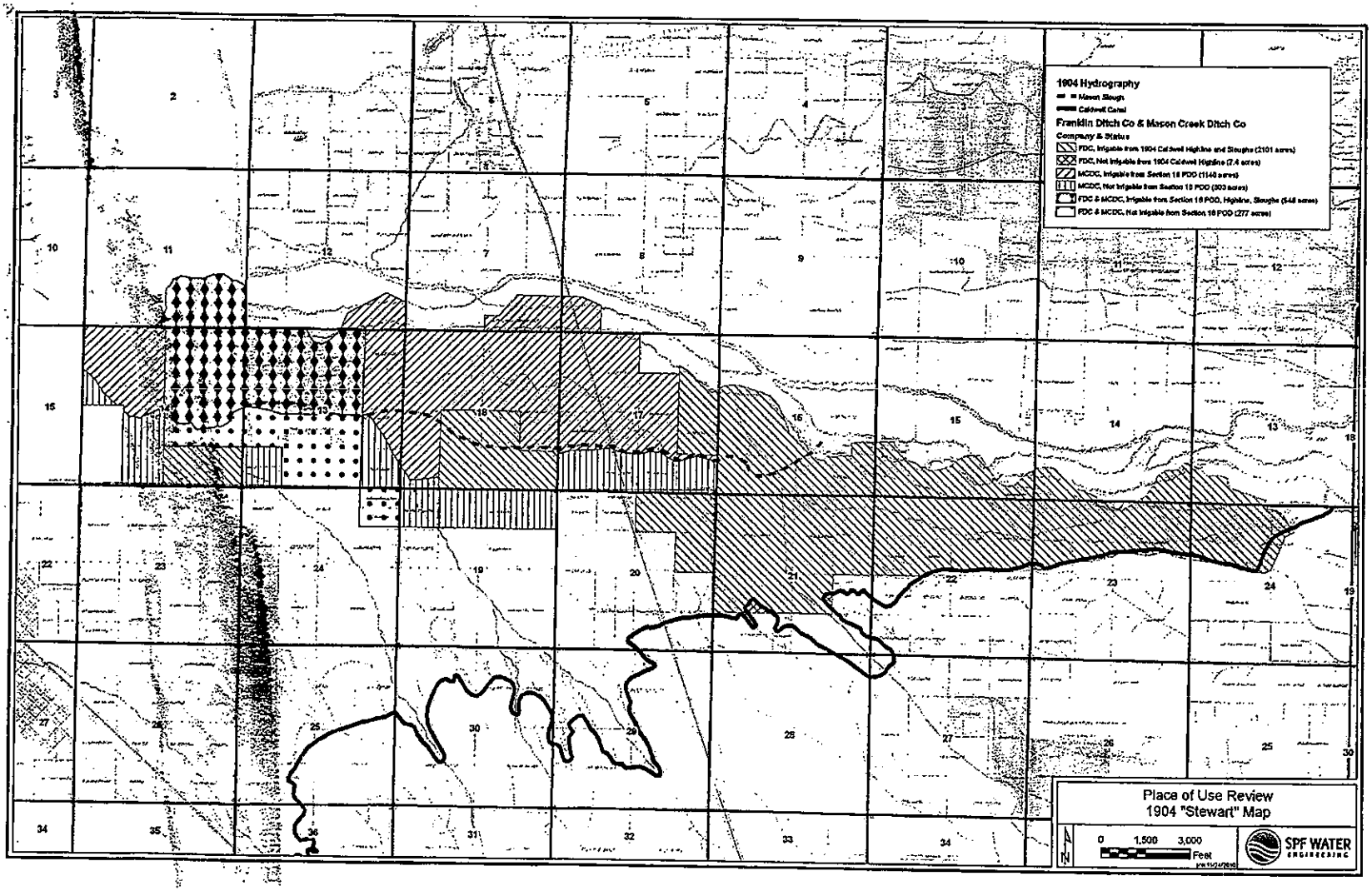
Place of Use Review, 1904 "Stewart" Map Irrigated Lands, Lands Irrigated from Mason Creek Ditch Co Section 16 POD, Caldwell Canal and Sloughs within Company Boundaries

PID001105

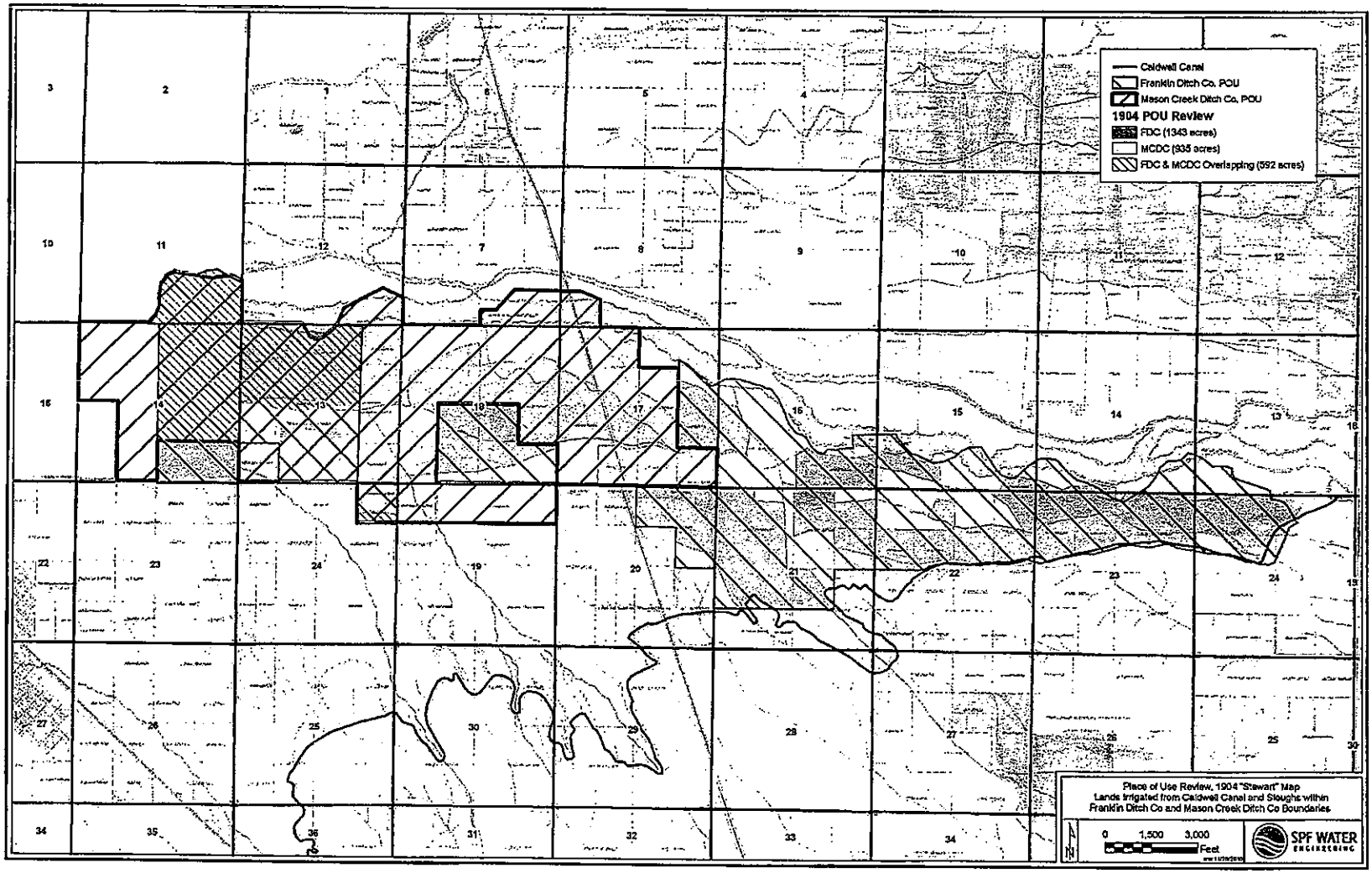

Caldwell Canal
Franklin Ditch Co. POU
Mason Creek Ditch Co. POU
1904 POU Review
FDC (1343 acres)
MCDC (935 acres)
FDC & MCDC Overlapping (592 acres)
Place of Use Review, 1904 "Stewart" Map
Lands Irrigated from Caldwell Canal and Sloughs within
Franklin Ditch Co and Mason Creek Ditch Co Boundaries
0 1,500 3,000
Feet
SPF WATER ENGINEERING

PID001106


1904 Hydrography
Mason Slough
Caldwell Canal
Franklin Ditch Co & Mason Creek Ditch Co
Company & Status
FDC, Irrigable from 1904 Caldwell Canal and Sloughs (1334 acres)
MCDC, Irrigable from Section 16 POD (730 acres)
MCDC, Not Irrigable from Section 16 POD (190 acres)
FDC & MCDC, Irrigable from Section 16 POD, Caldwell Canal, Sloughs (530 acres)
FDC & MCDC, Not Irrigable from Section 16 POD (58 acres)
Place of Use Review, 1904 "Stewart" Map Irrigated Lands.
Lands Irrigated from Mason Creek Ditch Co Section 16 POD,
Caldwell Canal and Sloughs within Company Boundaries
0
1,500
3,000
Feet
SPF WATER ENGINEERING

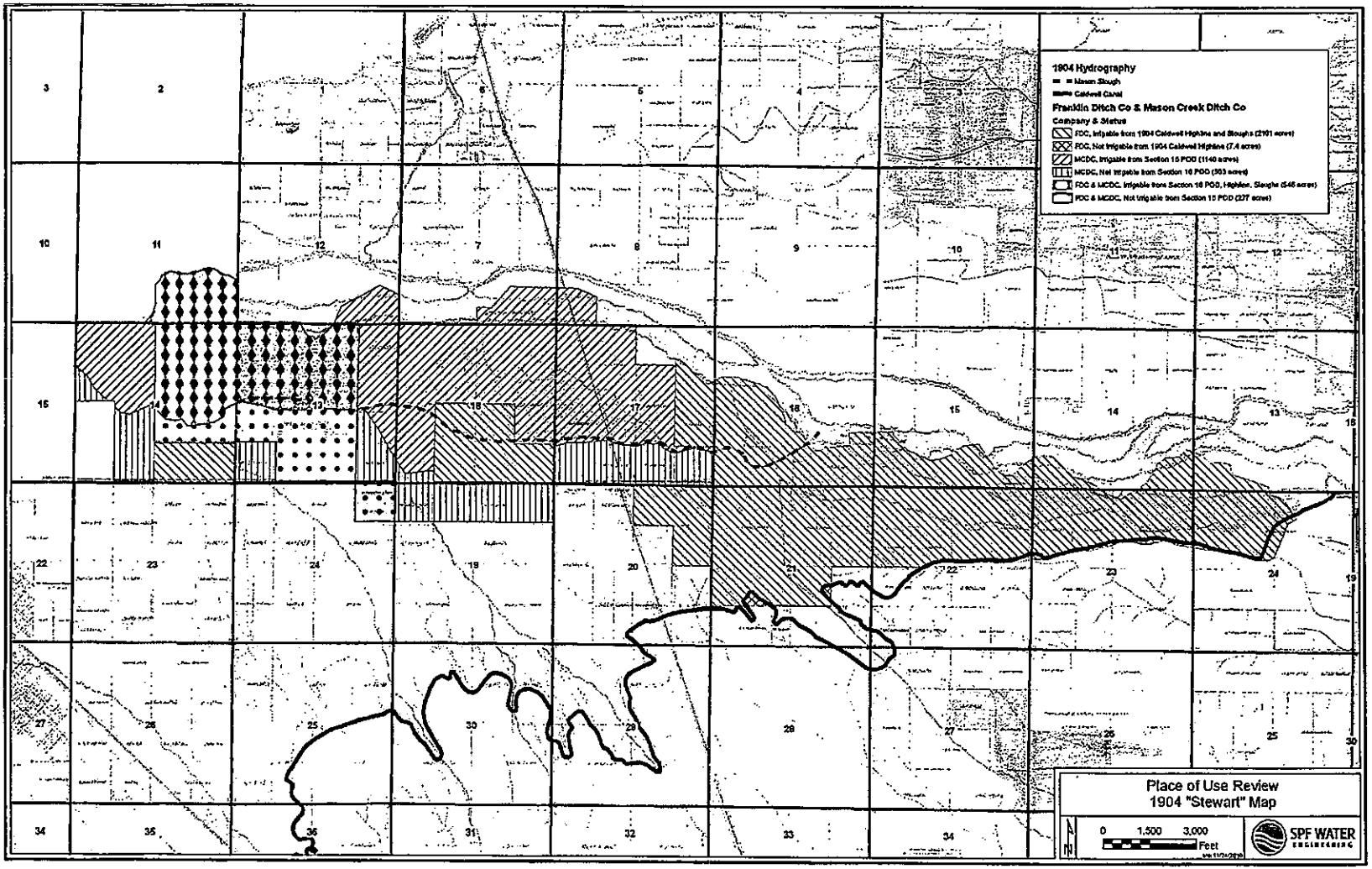

1904 Hydrography
Mason Slough
Caldwell Canal
Franklin Ditch Co & Mason Creek Ditch Co
Company & Status
FDC, Irrigable from 1904 Caldwell Highline and Sloughs (2101 acres)
FDC, Not Irrigable from 1904 Caldwell Highline (7.4 acres)
MCDC, Irrigable from Section 18 POD (1140 acres)
MCDC, Not Irrigable from Section 18 POD (303 acres)
FDC & MCDC, Irrigable from Section 18 POD, Highline, Sloughs (548 acres)
FDC & MCDC, Not Irrigable from Section 18 POD (277 acres)
Place of Use Review
1904 "Stewart" Map
0 1,500 3,000
Feet
SPF WATER ENGINEERING

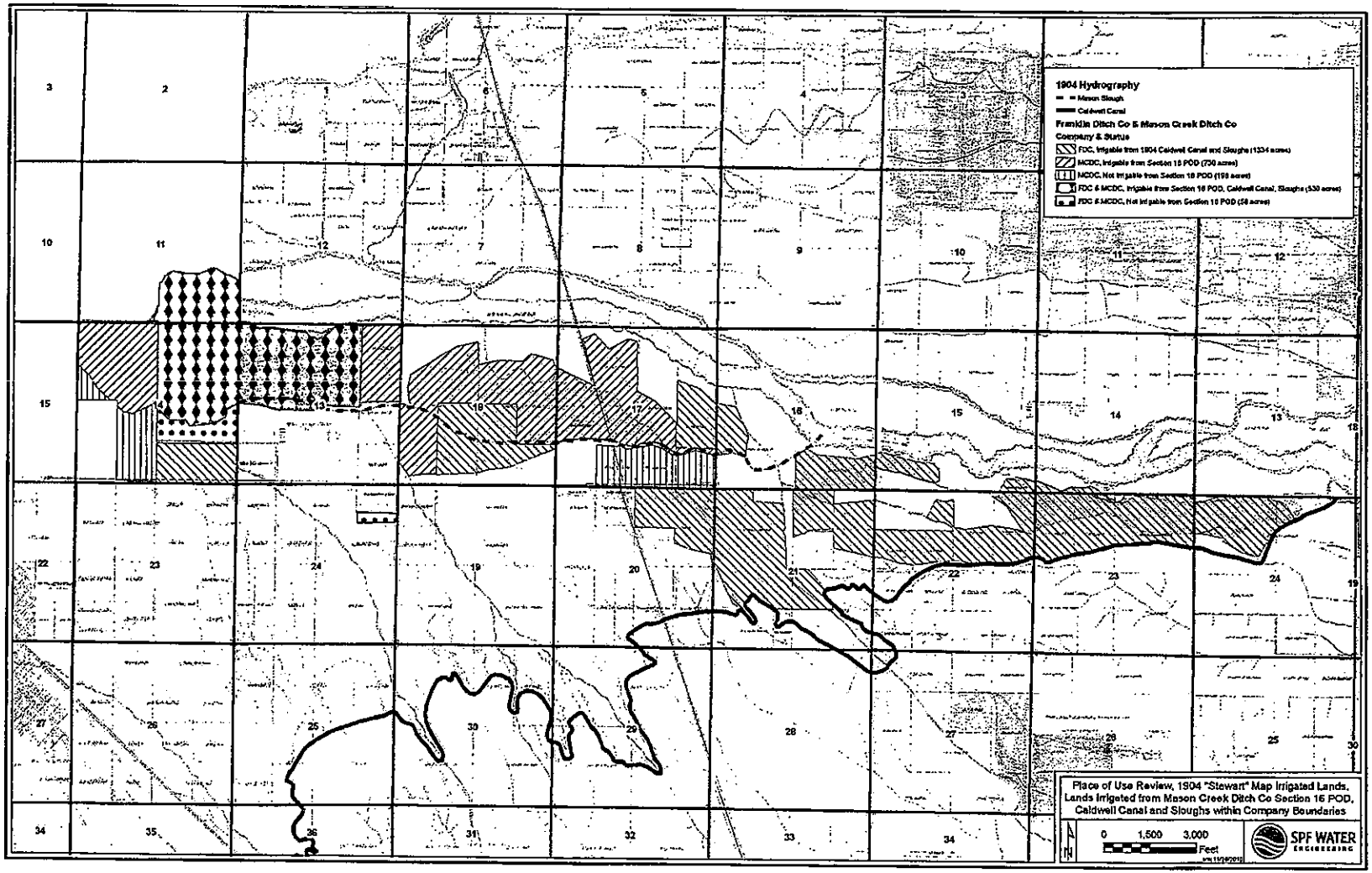
PID001108


Caldwell Canal
Franklin Ditch Co. POU
Mason Creek Ditch Co. POU
1904 POU Review
FDC (1343 acres)
MCDC (935 acres)
FDC & MCDC Overlapping (592 acres)
Place of Use Review, 1904 "Stewart" Map
Lands Irrigated from Caldwell Canal and Sloughs within
Franklin Ditch Co and Mason Creek Ditch Co Boundaries
N
0
1,500
3,000
Feet
SPF WATER ENGINEERING

PID001109

PID001110


1904 Hydrography
Mason Slough
Caldwell Canal
Franklin Ditch Co & Mason Creek Ditch Co
Company & Status
FDC, Irrigable from 1904 Caldwell Highline and Sloughs (2101 acres)
FDC, Not Irrigable from 1904 Caldwell Highline (7.4 acres)
MCDC, Irrigable from Section 18 POD (1140 acres)
MCDC, Not Irrigable from Section 18 POD (363 acres)
FDC & MCDC, Irrigable from Section 18 POD, Highline, Sloughs (546 acres)
FDC & MCDC, Not Irrigable from Section 18 POD (227 acres)
Place of Use Review
1904 "Stewart" Map
0 1,500 3,000
Feet
SPF WATER ENGINEERING


1904 Hydrography
Mason Slough
Caldwell Canal
Franklin Ditch Co & Mason Creek Ditch Co
Company & Status
FDC, Irrigable from 1904 Caldwell Canal and Sloughs (1334 acres)
MCDC, Irrigable from Section 16 POD (730 acres)
MCDC, Not Irrigable from Section 16 POD (193 acres)
FDC & MCDC, Irrigable from Section 16 POD, Caldwell Canal, Sloughs (530 acres)
FDC & MCDC, Not Irrigable from Section 16 POD (58 acres)
Place of Use Review, 1904 "Stewart" Map Irrigated Lands, Lands Irrigated from Mason Creek Ditch Co Section 16 POD, Caldwell Canal and Sloughs within Company Boundaries
0 1,500 3,000
Feet
SPF WATER ENGINEERING

PID001111

Franklin Ditch Co and Mason Creek Ditch Co Enlargement Review Maps

Acreage - Enlargement Review Map Nov 24				
	Franklin	Mason	Overlap	Total
Water Right Limit	2056	1504.3		3560.3
Irrigable from 1904 Caldwell Highline and Sloughs	2101		546	2647
Not Irrigable from 1904 Caldwell Highline	7.4			7.4
Irrigable from Section 16 POD (Mason Original)		1140		1140
Not Irrigable from Section 16 POD (Mason Original)		503	277	780
Total Irrigable	2101	1140	546	3787

Acreage - Stewart Enlargement Review Map Nov 26				
	Franklin	Mason	Overlap	Total
Water Right Limit	2056	1504.3		3560.3
Irrigated from Caldwell Highline or Sloughs	1343	935	592	2870

Acreage - Stewart & Mason POD Enlargment Review Nov 26				
	Franklin	Mason	Overlap	Total
Water Right Limit	2056	1504.3		3560.3
Irrigable from 1904 Caldwell Highline and Sloughs	1334		530	1864
Not Irrigable from 1904 Caldwell Highline				0
Irrigable from Section 16 POD (Mason Original)		730		730
Not Irrigable from Section 16 POD (Mason Original)		198	58	256
Total Irrigable	1334	730	530	2594

November 26, 2010

PID001091

SRBA Highline Report

Date	Event	Source	Subject
2/7/1884	The $30,000 town ditch in Caldwell is nearly completed, according to the Caldwell Tribune.	Caldwell Tribune 2/7/1884	caldwell ditch,
3/15/1884	Contractor John McCollum reported "good progress" on the "town ditch." Eight miles have been completed, with six miles to go. McCollum states that the ditch will put water into the city reservoir by	Caldwell Tribune 3/15/1884	caldwell ditch,
5/1/1884	Lawsuit ongoing between Joseph Perrault and the Oregon and Idaho Land Improvement Company, regarding fraudulent land purchases.	Idaho Statesman, 5/1/1884	strahorn, idaho land improvement, perrault,
2/20/1886	Work on the high line canal south of Caldwell is progressing, reports the Caldwell Tribune.A.A. Holcomb,Mr. Perkins, Bob Young, Moore, Ball, and A.R.T. Newland all contributed to building the	Caldwell Tribune 2/20/1886	high line, caldwell,
5/21/1887	All parties who desire to obtain water from the Caldwell Canal are asked to contact Robert Strahorn, General Manager of the Improvement Co.	Caldwell Tribune 5/21/1887	strahorn, caldwell,
8/21/1889	Caldwell ditch by now heads 18 miles below Boise and is running 15 miles long to the West, watering the lower bench lands, measuring 6 feet wide on the bottom.	Idaho Statesman, 8/21/1889	caldwell,
4/18/1891	A.D. Foote notes in a report to the Governor that the Sebree, Strahorn, Phyllis, and Dixie are the canals and ditches that irrigate Caldwell.	Caldwell Tribune 4/18/1891	foote, phyllis,
5/2/1891	The Caldwell Real Estate & Water Company took possession of the Caldwell Canal last fall and it is now a great success, according to the Caldwell Tribune. Acting on the advice of W.D. Arnett, the company abandoned the old headgate,which was located on one of the many sloughs that traverse the bottom lands of the Boise River, and located the point of diversion one mile higher up in order to take water out of the main channel. About one mile of new ditch had to be built from this point to connect with the old works. About a mile below the point of diversion is the second headgate; from this point down to the forks of the ditch on Canyon Hill two miles above town, the old works have been throughly overhauled.	Caldwell Tribune 5/2/1891	caldwell real estate,caldwell canal
10/31/1891	Fowler, Hand, and Arnett are surveying the ditch known as the High Line, for the Caldwell Real Estate & Water Company. It is about 10 miles long and above their present canal.	Caldwell Tribune 10/31/1891	high line, caldwell real estate,
10/31/1891	Fowler, Hand, and Arnett were surveying the High Line ditch for the Caldwell Real Estate and Water Company. It was above their present canal and was about ten miles long. No formal action had been taken other than surveying and obtaining estimates.	Caldwell Tribune 10/31/1891	fowler, hand, arnett, high line,

Date	Event	Source	Subject
11/7/1891	The High Line Ditch survey was completed satisfactorily last Wednesday. The ditch was projected to be twelve miles long and twelve feet wide at the bottom, was within 23 feet of the Phyllis elevation, and was to irrigate about 3000 acres. It was 14 feet 3 inches higher than the Strahorn ditch. For the first 10 miles, it had a fall of 21 inches to the mile, 25 inches to the mile for the remainder of its length.	Caldwell Tribune 11/7/1891	high line,
12/21/1892	Discussion over enlarging the Strahorn Canal and building the High Line.	Idaho Statesman, 12/21/1892	strahorn, high line,
12/21/1892	Statesman reports that the Strahorn Canal may be enlarged and that the High Line canal is under consideration.	Idaho Statesman, 12/21/1892,	strahorn, high line,
3/26/1893	Statesman reports that the Phyllis, High Line, and Strahorn Canals would all soon be under new management.	Idaho Statesman, 3/26/1893,	strahorn, phyllis, high line,
5/25/1893	Strahorn Canal headgate is located near the Star wagon bridge.	Idaho Statesman, 5/25/1893,	strahorn,
7/1/1893	Owners of the Pyllis Canal are reported to be contemplating the idea of constructing a lateral that would serve acreage in and around Caldwell.	Idaho Statesman, 7/1/1893	phyllis, caldwell lateral,
3/11/1894	The Caldwell Real Estate and Water Company will begin work at once on a new headgate for the Strahorn Canal. The Phyllis Canal Company is considering a lateral into Caldwell.	Idaho Statesman, 3/11/1894	strahorn, phyllis, caldwell real estate,
4/20/1894	Phyllis Canal is building a 3-mile lateral from the canal to the town of Caldwell.	Idaho Statesman, 4/20/1894	phyllis, caldwell lateral,
4/20/1894	The headgate of the Strahorn is in danger of being swept away. It is located near the Star bridge.	Idaho Statesman, 4/20/1894	strahorn,
4/20/1894	Someone - probably the Phyllis Canal Co. - is building a 3-mile lateral from the Phyllis Canal to serve the south and west parts of Caldwell	Idaho Statesman, 4/20/1894,	phyllis, caldwell,
6/13/1895	Citizens attempt to form an irrigation district and build a "high line extension" of the Strahorn Canal.	Idaho Statesman, 6/13/1895,	strahorn, id,

Date	Event	Source	Subject
1/1/1899	In the Biennial Report of the State Engineer for 1899-1900, the Caldwell Ditch is described as : "takes its water from the Boise River on the south side in Sec. 24, T4N, R2W. It crosses the first bottom, and a half mile from the head reaches the foot of the bluff, which it follows in a westerly direction for 2 miles to the top of the bench. After reaching the bench, it has a southwesterly direction fro about 10 miles, ending 2 miles southwest of Caldwell. It is about 14 feet wide on top near the upper end and has a capcity of about 75 second feet. It narrows rapidly after reaching the bench. It cover about 12,000 acres lying in the neighborhood of Caldwell.	Bibl 17, Biennial Report of the State Engineer 1899-1900	Caldwell canal
11/11/1899	Two petitions for the organization of irrigation districts were presented in the Caldwell Tribune on this date. One was inclusive of all irrigable lands lying under the Phyllis and Caldwell Canals. The other covered only lands that may be irrigated by the Caldwell system. Should the larger proposed organization fail, then the smaller one shall be urged.	Caldwell Tribune 11/11/1899	phyllis, caldwell,
11/17/1899	Committee of people in Canyon County report that they have obtain A.J. Wiley to report on the Strahorn and Phyllis ditches. Ditches and water rights under each were offered at $10,000 and $75,000 respectively. Wiley reported that the acreage under the high line survey of the Caldwell ditch was 12,542. He suggested the new ditch leave the old ditch at Ten Mile, and then use the old ditch as a distributing lateral. To water this land would require enlargement of the canal, a ditch on the side hill measuring 24 feet wide on the bottom, 3.5 feet deep, and 10 feet wide on the top. He claimed it would cost $43,000 in addition to the $10,000 cost quoted to the potential irrigation district buyers. He also noted that the Strahorn carried 3700 inches.	Idaho Statesman, 11/17/1899	wiley, strahorn, caldwell high line, phyllis,

Date	Event	Source	Subject
12/1/1899	A.J. Wiley reports in the Statesman on Canyon County Canals. Notes that the Phyllis is 35 miles long. At original construction, the canal was 12 feet wide at the bottom and 20 feet wide at water level. At Nampa, it was reduced to 8 feet on the bottom and 13.5 feet on top. Wiley said that the canal could be restored and fixed on the side hill part so that it could again carry the full amount of water.In regards to the Caldwell canal, a careful survey had been made of the side hill section, and an original survey of the new line, leaving the present canal at the end of the the side hill work and running at a higher level. The Caldwell has a measured capacity of 75 second feet but is encumbered by a free water right requiring the delivery of 27 second feet free of all charges for operation and maintenance - therefore, its estimated capacity is reduced to 48 second feet.The value of the Caldwell canal was estimated from $13,400 to $38,400. The acreage under the Caldwell canal is based upon a new line upon a higher level, diverging from the present canal at the point where it emerges upon the mesa, near Ten Mile creek. This is rendered possible by using a uniform grade of 25 inches, which is lighter than the present grade. Under this line, 12,700 acres are needed for irrigation.The canal must also provide for the free water right of the Franklin Ditch company. It will have a bottom width of 24 feet, width at water line of 33 1/3 feet and a depth of 3 1/2 feet with banks 5 feet high and ten feet wide on top.The dimensions of the High Line were from Head to Mesa, Mesa to Indian Creek, Indian Creek to 16 mile, 16 mile to Levan Gulch,Levan Gulch to 21st mile, and 21st mile to pipeline G. Extending and enlarging the canal would cost an estimated $39,909. The construction was designed in two stages. A final note on the construction of the canal focused on the 21st mile of the canal, at a point three miles southwest of Caldwell, where it is necessary to make a drop of 33 5-10 feet. Finally, in regards to the water right of the Caldwell Canal, A.J. Wiley notes that "the fact that a canal possesses an old water right location for a large amount of water, of which only a fraction has been diverted, is of no value against a subsequent locationwhich has been perfected by the diversion and use of the water."	Idaho Statesman, 12/1/1899	phyllis, wiley,high line, franklin ditch
12/23/1899	Two irrigation districts were initially proposed. First, a district under the so-called "Caldwell High Line" canal, and second, a larger district comprising territory under both the Caldwell High Line and the Phyllis. The High Line district contained about 12,000 acres and the Phyllis territory about 22,000, almost all of which in the latter district was considered susceptible of cultivation. State Engineer Ross opposed the larger district for some reason, but was not forthcoming about why.	Caldwell Tribune, 12/23/1899	phyllis, pid, high line, caldwell, ross,
1/4/1900	Canyon County Commissioners meet to discuss the petition for an irrigation district. The petition for a greater district was granted, including both the Strahorn and the Phyllis canals.	Idaho Statesman, 1/5/1900; Idaho Leader 1/6/1900	pid, strahorn, phyllis,
3/11/1900	State Engineer Ross met in Caldwell with the directors of the new Pioneer Irrigation District. The Pioneer District is reported to have purchased the Caldwell canal and is in negotiations to purchase the Phyllis.	Idaho Statesman, 3/11/1900	ross, pid, phyllis, caldwell,

Date	Event	Source	Subject
3/17/1900	Last Thursday, the Board of Directors of the Pioneer Irrigation District met. They accepted Engineer Wiley's proposal to draw up plans to be submitted to the state Board of Engineers as required by law. A letter from Mr. Bradbury was read regarding granting the District immediate control over the Phyllis, but no action was taken due to the absence of his attorney, Mr. W. E. Borah, until the following week. The board instructed the secretary to begin negotiations with Mr. Sebree in an effort to strike a similar arrangement regarding the Strahorn Canal.	Caldwell Tribune 3/17/1890	wiley, bradbury, borah, sebree, strahorn,
3/17/1900	The Pioneer Irrigation District directors began negotiations with W. C. Bradbury in an effort to obtain control over the Phyllis Canal for the present year. Mr. Sebree was probably, according to the paper, in similar negotiations regarding the Strahorn Canal. Should the negotiations be successful, the next matter at hand would be ensuring the canals' safe delivery of the necessary amounts of water for the year.	Caldwell Tribune 3/17/1900	phyllis, bradbury, sebree, strahorn,
4/7/1900	The directors of the PID have prepared and submitted their report to the State Engineer and feel that it will meet his approval. Mr. Howard Sebree, owner of the Caldwell Canal, is said to be willing to do anything in his power to facilitate such arrangements respecting water distribution as the board may desire. He is strongly in favor of the district system.	Caldwell Tribune 4/7/00	sebree, caldwell canal, pid, state engineer,
5/12/1900	Mr. Sebree has offered to sell the Strahorn to the PID for $10,000. The Caldwell paper showered praise on him for his selflessness, in contrast with Mr. Bradbury who was aiming to "squeeze" every cent out of the farmers that he could.	Caldwell Tribune 5/12/1900	phyllis, sebree, caldwell, pid,
5/15/1900	Outlines plans for the District and discusses water supply from the Boise River and diverted through Phyllis and Caldwell Canal. (now the Highline?) Notes that the original Caldwell Canal was too steep and that they planned to move it to create a new grade sufficient for carrying water, but planned to use "the same heading." Notes that the Caldwell Canal takes out 5 1/4 miles west of the Phyllis. Estimated dimensions of the Caldwell Canal are discussed, particularly the plans to enlarge the canal to irrigation 10,184 acres, as well as providing 27 second feet for the Franklin Ditch Company.	minutes,	phyllis, caldwell, highline,
6/21/1900	D.W. Ross consults with the proposed Pioneer Irrigation District regarding the cost of the Phyllis (Bradbury offered it at $75,000) and the cost of the maintenance (24 cents/acre). It was thought that 4 ditch riders would be needed for the Phyllis and 3 for the Strahorn.	Idaho Statesman, 6/21/1900	strahorn, ross, phyllis, bradbury, pid,
7/26/1900	Pioneer Irrigation District holds its first bond election on the next Saturday, to purchase and enlarge the Phyllis and Caldwell canals.	Idaho Statesman, 7/26/1900;7/28/1900 - Idaho Leader	phyllis, caldwell, pid, enlarge,
8/14/1900	Some of the farmers under the PID disagree with the Board over whether to acquire the Caldwell Canal. Being low water season, it is clear that there is not enough water in the Phyllis to reach the lower lands, but seepage from the lands between the Phyllis and the Caldwell flows into the Caldwell Canal and can provide "a good big stream for the latter." Not owning the Caldwell would put the district at a	Caldwell Tribune 8/14/1900	caldwell, phyllis, seepage, return,

Date	Event	Source	Subject
10/6/1900	Courts are examining the Pioneer organization and if they approve of the steps taken so far, they will legitimize the district beyond any question. Once the courts have acted, bonds in the amount of $125,000 will be offered for sale and a portion of the money will be used for the purchase of the Phyllis and Strahorn (Caldwell) Canals. The remaining money will be used for improvements which are to be begun this fall. Improvements to be made included enabling the canals "to put a sufficient amount of water on the bench so that there will be no scarcity next year."	Caldwell Tribune 10/6/1900	bond, phyllis, caldwell, improvement,
1/1/1901	Pioneer Irrigation District organized in 1901 to take water from the Boise River through the Phyllis and Caldwell Canals for the irrigation of 36,500 acres.		pid, phyllis, caldwell,
1/1/1901	Boise & Nampa Irrigation and Power Company's Canal System map dated 1901 shows the Strahorn Ditch taking out of section 19 in township 4 North, Range 1 West, and runs to the southwest to section 36 of Township 4 North, range 3 West, where it heads in a more directly west fashion until it ends in section 34. This is the same as the Caldwell Canal.	Boise & Nampa Irrigation and Power Company's Canal System map dated 1901	strahorn, map, caldwell,
5/25/1901	State Engineer Ross was in Nampa to present the County Commissioners with a report on the plans for a proposed irrigation district that would include the Phyllis and Caldwell canals. This is the third attempt to organize a district.	Idaho Leader 5/25/1901	Ross, Phyllis,
1/16/1902	The PID Board met and decided the price for improved lands needed for the right of way for the Caldwell High Line extension would be $25, and unimproved land would be $12.50 per acre.		high line, caldwell,
5/27/1902	PID Board orders bonds printed for the purchase of the Caldwell Canal.	minutes,	pid, caldwell, gonds,
6/24/1902	PID purchased the Caldwell Canal, closed the deal today.	Idaho Statesman, 6/24/1902	pid, caldwell,
8/5/1902	Board directs a new watermaster to continue to deliver water to a Mr. I.N. through the Caldwell Canal from "the Franklin Company's portion of water" upon a payment of $9. This was a special arrangement and not intended to occur regularly.	PID minutes, 8/5/1902	franklin.
10/1/1902	It is proposed this year to complete the sidehill work on the Phyllis and Strahorn canals, specifically to construct the first section of that canal from the point of diversion in the river to the top of the hill. The survey of the Highline is also nearly completed.	Idaho Leader 10/1/1902	Strahorn, Phyllis, improvements
11/22/1902	In the financial statement of the Pioneer Irrigation District, the engineering of the Caldwell high line is listed as an expense.	Bibl 1, Biennial Report of the State Engineer, 1901-1902	Caldwell Highline

Date	Event	Source	Subject
12/11/1902	PID Board accepts bid of Faris and Kesl for enlargement work on the Caldwell and Phyllis Canals.	pid, caldwell, phyllis, Idaho Statesman,	Minutes of board, 12/11/1902
12/12/1902	Big contract signed for enlargement work on the Phyllis. Faris and Kesl were the contractors, and for $65,000, they planned to enlarge the canal from the headgate all the way to 5 Mile (six miles), making it 28 feet wide (whereas it was currently only 14) with a width of 45 feet on top. It will become a feeder canal to the Caldwell, in order to water all of the 35,000 acres of lands under the district plus a new tract. The men would begin work immediately and were expected to complete the work by April 1903.	IS, 12/12/1902;Idaho Leader 12/10/1902 &	phyllis, faris, enlarge,
1/1/1903	In the Biennial Report of the State Engineer for 1903 -1904, statistics are provided for the following canals: Phyllis, Caldwell, Strayhorn slough, and Mason slough. The report notes that the Caldwell Canal is twenty miles in length and carries seventy second feet. Construction work has been carried on through 1903 and 1904; the ditches are now completed, carry water to their full capacity and irrigate all the lands in the district. Expenses for construction on the Caldwell canal was listed as $14,972.57	Bibl 2, Biennial Report of the State Engineer 1903-1904	Caldwell canal, Strahorn, Mason
1/1/1903	In the Third Annual Report of the Reclamation Service, the capacity of canals for diverting water are listed for the Phyllis, Caldwell, Strayhorn, and Masons (which was dry).	Bibl 12, Third Annual Report of the Reclamation Service,	Caldwell canal, Strahorn, Mason
4/4/1903	Bid proposals were advertised in the Caldwell Tribune for enlarging the Ditch for the PID, between the lower end of the drop and the east end of the flume across Indian Creek in Nampa. The district wanted the ditch enlarged from 10 feet on the bottom to 16 feet on the bottom in this section, a distance of 500 feet.The cross sections of the old ditch and the proposed new ditch can be seen at the secretary's office in Caldwell, Idaho.	Caldwell Tribune 4/4/1903	phyllis, enlargement, pid, indian creek, nampa, caldwell
7/7/1903	PID Board votes to ask Franklin Ditch Company for $150 "to assist in litigation now pending."	PID Minutes, 7/7/1903	franklin, pid board, litigation
7/7/1903	PID Board meets and decides to pursue the High Line Canal construction. Engineer Hedden is directed to make estimates of the cost of constructing the High Line Canal to Indian Creek. Engineer Hedden is also directed to examine the cost of the Schenck Extension of the Old Caldwell Canal and report on the advisability of its purchase by the District.	PID Minutes, 7/7/1903	high line, Hedden, indian creek, old Caldwell Canal,

Date	Event	Source	Subject
7/11/1903	A resolution was made to pursue the enlargement of the Highline canal this season. A number of farmers were under the impression that this meant the abandonment of further improving the Caldwell canal. The contract for enlarging and changing the grade of the Caldwell was let to Faris & Kesel last fall at the time the contract was let for the enlargement of the Phyllis. It seems to be agreed on to complete the Phyllis to its ultimate size to a point near Nampa and to complete the High Line to Indian Creek. This year the acreage under the Phyllis alone is over 7600 - the total under both canals will probably exceed 9000	Caldwell Tribune, 7/11/1903	High line, Phyllis
9/12/1903	Contractors were in town for the PID board meeting, where opened bids to build the Caldwell High Line Canal, taking out of the river 6 miles above Caldwell. It is intended to water the higher bench lands not heretofore reached by laterals from the main ditch, be 10 miles in length, and in the form of a crescent.	Idaho Statesman, 9/13/1903	caldwell high line,
9/14/1903	PID planned to award the contract to build the Caldwell High Line Canal in one week, on the 20th.	Idaho Statesman, 9/14/1903	caldwell high line,
10/1/1903	Board awards bids for the construction of the Caldwell High Line and for work on the Phyllis. A joint bid was accepted to construct the canal from station 171 to 358; however a different company was selected to construct the part of the canal from Mason Creek to Indian Creek.	PID Minutes 10/1/1903	high line, phyllis, mason creek, indian creek,
10/1/1903	PID Board votes to give the contract to W.P. Carter for the enlargement of the Phyllis Canal, and to Bisset, Marsh and Reeser for the construction of the High Line to station 358, with the remainder of the canal, from Mason Creek to Indian Creek to Metcalf and Nicholas.	PID Minutes, 10/1/1903	phyllis, caldwell, board, pid, enlargement, high line
10/17/1903	The work of enlarging the ditches - both the Phyllis and Caldwell canals- is underway, so says the Caldwell Tribune.	Caldwell Tribune 10/17/1903	phyllis, enlargement, pid,
12/10/1903	PID Board votes to allow Schenck to build a flume on his place, and PID will pay for the lumber if he will build it. The board also passes a resolution stating that: "it is not the (purpose?) of this board to have the Caldwell Canal filled so as to in any way interfere with the delivery of water to the Franklin Ditch Co."	PID Minutes, 12/10/1903	pid, schenck,
2/6/1904	PID directors met to decide whether to issue $40k in bonds to complete the work on the Phyllis and the High Line canals.	Idaho Statesman, 2/6/1904,	phyllis, high line, pid,
2/27/1904	In "A History of the District," the major events in the history of the Pioneer Irrgiation District are recounted. Of the enlargement of the Caldwell and Phyllis canals, the author notes that by 1903 no signifigant work on enlargement had been completed. Work on the side hill of both the Phyllis and Caldwell had not been completed by December of 1903. The project was ongoing in 1904.	Caldwell Tribune, 2/27/1904	enlargement, Phyllis, Caldwell

Date	Event	Source	Subject
3/1/1904	PID Board hears Engineer Hedden's verbal report on the Caldwell High Line lateral. The Board orders Hedden to create the necessary surveys and written plans so that the superintendent could commence construction immediately on the lateral. The board directed the superintendent to begin work as soon as possible. At the same meeting, the board voted unanimously to abandon the Old Caldwell Canal.	PID Minutes, 3/1/1904	caldwell canal, high line, hedden,
3/14/1904	The board of the PID met at the head of the Phyllis canal last week, making a thorough investigation of the entire side-hill section, and reporting favorably on its condition, despite the wet and stormy weather that has slowed the contractors down. By the end of next week, water will be turned in, and it will take ten days to "thoroughly puddle the side hill section." The Caldwell High Line side hill was also virtually complete and puddling either has or will be begun soon. The work of putting in the new head gate was completed the previous Monday.	Caldwell Tribune 3/14/1904	phyllis, high line, side hill, head gate, pid, caldwell,
4/5/1904	Hedden is ordered by the PID Board to survey laterals for 3rd Stree, 4th Street, and another lateral called Boom. As for the request to use the Old Caldwell Canal as a lateral, commissioner Flora moved that water be turned "from the High Line to the old Caldwell Canal at a suitable place to be designated by the district's engineer, now that permission be and hereby is granted those who may be advantaged thereby to use the old Caldwell Canal as a lateral for this season, provided it be done without cost to the District or damage to anyone else." The water rate for I.N. Paynter (sp?) was reduced from $17 to $10. This is the same person who was receiving his water from the Franklin Right.	PID Minutes, 4/5/1904	caldwell canal, high line, hedden,
4/16/1904	Side hill sections of both canals - Phyllis and Highline- are being puddled. The excavation work is practically done, and "there is every indication of an ample water supply."	Caldwell Tribune 4/16/1904	pid, phyllis, caldwell, side hill,
5/3/1904	The PID Board accepted without action a letter from Mr. Schenck. Schenk offered to "continue the High Line lateral to completion on certain terms." At the same meeting, the board agreed to make a personal examination of the old Caldwell Canal from the point where the High Line empties into it to its terminus, to ascertain if it was necessary to complete the High Line lateral at this time." The examination was made, and it was decided that the High Line lateral was not needed at that time. An attorney appeared at the meeting to argue for certain residents who desired to utilize the Old Caldwell Canal from Ten Mile down as a lateral. The board referred to its attorney the question of a "tap where the Franklin Ditch Company's water comes out of the Caldwell High Line." The board instructed its superintendent to fix the tap. Finally, upon advice of district attorneys, the board entered into the minutes its decision to abandon the Old Caldwell Canal.	PID Minutes, 5/3/1904	high line, schenck, old caldwell canal, high line, franklin,
7/5/1904	PID Board orders that a weir be placed into the "first head gate west of Five Mile to measure Franklin Ditch Co's water."	PID Minutes, 7/5/1904	franklin, pid board,
12/6/1904	Mr. Martin appears before the PID Board to petition his land taxes be remitted, because the land itself was "swamp" and "water could not be used upon it."	Minutes of Board, 12/6/1904	pid, swamp, waterlog, board,

Date	Event	Source	Subject
1/1/1905	In the Sixth Biennial report of the State Engineer to the Governor of Idaho for 1905-1906, expenses are listed for the maintenance of the High line and for the Caldwell town lateral. The Caldwell Canal is listed as 20 miles long and carrying seventy feet.	Bibl 3,Sixth Biennial report of the State Engineer to the Governor of Idaho for 1905-1906	Caldwell
5/9/1905	Today Pioneer irrigation brought a case before the district court regarding proving the existence of the "Franklin Ditch." Article also notes the history of the Stapleton ditch and its delivery of water to Mason Creek farm.	The Idaho Daily Statesman	Franklin Ditch, Mason Creek Ditch
6/5/1905	PID stationery claims that the Phyllis Canal is 35 miles long and covers 23,400 acres. It also states that the "Caldwell High Line Canal" is 18 miles long and covers 11,000 acres.	arch 57	pid, phyllis, caldwell, high line,
7/27/1905	Judge Stewart issues an order to give lower Boise farmers water. Allotments for Mason Creek ditch, Caldwell high line and Phyllis canal are listed.	The Idaho Daily Statesman 7/27/1905	High line, Mason Creek ditch
8/3/1905	The distribution of water to the "lower canals" was set by water commissioner J.H. Lowell. The Phyllis,Mason Creek ditch, and Caldwell Highline are all listed seperately.	The Idaho Daily Statesman 08/03/1905	Mason Creek Ditch, Caldwell Highline
8/9/1905	Judge Stewart made minor changes in distribution of water from river. The principal change in the acreage allotment was in reducing the amount allowed to the Pioneer Irrigation district. The High Line canal is mentioned specifically; it seemed that the acreage of the High Line had been counted as part of the Phyllis and then on its own - this duplication was fixed. When the judge decreed the acreage of the Boise River, he noted that the Pioneer Irrigation district supplies water through the Caldwell high line canal, the Phyllis canal, and the Franklin ditch.The acres for the Mason Creek ditch are also listed; no mention of the	The Idaho Daily Statesman	High line, Franklin Ditch, Stewart decree, Mason Creek ditch
12/2/1905	Judge Stewart fixes allotments of water to 135 claimants, including two for the Franklin Ditch Company (from 1866 - 770 inches and from 1880 - 1380 inches); Mason Creek Ditch Co. from 1869, 1860 inches); and 3 for the Pioneer Irrigation District (from June 1, 1884 - 2655 inches; September 1, 1890 - 10,000 inches; April 1,1904 - 2817 inches). Note: An allotment for a "Pioneer Canal" is listed seperatley. Other references to the Pioneer Irrigation district include a failure for some of the rights to comply with "the statute" and a note about the enlargement of a ditch in June of 1884.	The Idaho Daily Statesman 12/2/1905	Franklin Ditch, Mason Creek Ditch, Stewart Decree

Date	Event	Source	Subject
12/1/1906	According to the author of this article, the highline was not cut short three miles, but was extended further than the original plans of the District at the request of some landowners, who expected a better water service by having their land adjacent to a canal instead of at then end of a lateral from the Phyllis. The minutes of May 3, 1904 show that W. H. Schneck petitioned the Board of Directors to extend the Highline further; the reason for denying this application was that it was considered a waste of money to parallel an existing canal only 2 or 3 feet higher, thereby changing the source of water supply of 15 to 20 acres from the Phyllis to the Highline canal. It is now the policy of the board to clean out the old canal from the point where it is intersected by the Highline canal, large enough to accommodate all the land which could	Caldwell Tribune, 12/1/1906	Highline, Phyllis
12/8/1906	A "Small land owner" (who remained anonymous) wrote into the Caldwell Tribune to take issue with A.J. Wiley's assessment of the PID's needs. The author indicated that water was being wasted throughout the district, and that the Phyllis did *not* need to be enlarged, as some were advocating. Of the highline, the author provides the following details: "In the 21st mile of the canal (highline refered to) at a point three miles southwest of the town of Caldwell, it was found necessary to make a drop of 5-10 feet in the grade...this portion of the canal has a capacity of 36 second feet." "Instead of holding the highline up as Mr. Wiley intended...and extended to the Levan gulch," the article continued,"it was dropped some 10 to 15 feet at Indian Creek and surveyed and located to rev. Clemen's east line." Of the "old canal," the author writes:"the old canal from where the highline or the Caldwell lateral intersects it, has no fall to speak of. It should be, if it is put into shape to carry water to all of the land that can be irrigated from it east of the Levan gulch." The author then mentions again whether the "old ditch" should be cleaned out. Quoting from "Mr. Wiley's report," the author notes what seems to be the line of the Highline: head to Mesa, Mesa to Indian Creek, Indian Creek to 16 mile, 15 mile to levan Gulch, (unclear). Then the cost - including the purchase price of the "old ditch" is listed. The author ends the article by noting: "the highline was only built to Indian Creek with a lateral to Caldwell, ending inside the corporate limits."	Caldwell Tribune 12/8/1906	caldwell, high line, pid, wiley, phyllis,
2/9/1907	The Financial Statement of the Pioneer Irrigation District in the Caldwell Tribune lists as "assets" the Caldwell canal, laterals, right of way and headgates; it appears that the "highline" is now referred to as the Caldwell canal.	Caldwell Tribune 2/9/1907	caldwell, highline
11/24/1907	Articles in the Idaho Statesman from 1907 - 1911 mention drainage issues in the Mason creek district. In February 1911, owners of the Mason Creek drainage area started a movement for the oraginzation of a drainage district.These mettings continued through the summer of 1911.	The Idaho Daily Statesman 11/24/1907, 7/19/1910,2/12/1911,2/28/1911,6/11/1911,6/14/1911	Mason Creek drainage
8/2/1911	Water allowences are once again fixed by the court. Allocations for the Phylis Canal and Caldwell Highline are listed seperatley. No mention of Franklin Ditch or Mason Creek.	The Idaho Daily Statesman 8/02/1911	High line

Date	Event	Source	Subject
10/19/1911	PID passed resolutions looking to the drainage of its lands and employed an engineer who has been at work for three weeks making surveys for the purpose of ascertaining the feasibility of said plan to construct large drainage ditches for the collection of the water and to pump it into the high-line ditch near	arch 77,	highline, pid, drainage, usrs,
5/11/1912	Supplemental Water Supply map for the PID shows the "Caldwell High Line" in the same location and configuration as the Strahorn and Caldwell Low Line is depicted on other maps. Low Line was how it was referred to by 1933.	Supplemental Water Supply map for the PID,	strahorn, map, caldwell, high line,
8/2/1916	U.S. and Nampa Meridian sign a contract regarding the construction of three outlet ditches into the Phyllis and Caldwell High Line Canals from Five and Ten Mile Drains.	1917 Green report, RG115,	phyllis, caldwell, five mile, ten mile, nampa, reclamation, pid, drainage,
3/22/1918	Pioneer Irrigation District, holder of a water filing on Mason Creek Drain Ditch dated Sept. 8, 1915, desired to exchange 20 second feet of water with Caldwell Irrigation District, which had a filing on Indian Creek dated Oct. 15, 1909. The Mason Creek water would be conveyed through the Caldwell Highline Canal (owned by PID) to the lateral known as the Canyon Hill Lateral (also owned by PID) to lands within the Caldwell Irrigation District. In order to make this work, the grade of the Canyon Hill Lateral needed to be raised as much as four or five feet above its former grade, requiring a great deal of filled in ditch construction and thus increasing the danger of damage from breakage. Therefore, the two parties agreed that Caldwell Irrigation District would construct the diversion works in the Mason Creek Drain and maintain and operate it as well, as well as construct the ditch leading from the Caldwell Highline Canal. Additionally, the Caldwell Irrigation District agreed to enlarge the Cadlwell Hihgline Canal from the point where the water from Mason Creek enters to the point where it is discharged into the Canyon Hill Lateral, "to the capacity and in a manner satisfactory to the Board of Directors of the Pioneer Irrigation District." They also planned to enlarge the Canyon Hill Lateral to a capacity where it could handle the necessary amount of water. All was to be completed by April 1918. There was a supplemental contract signed by the two parties on December 3, 1919 that also allowed Pioneer Irrigation District to enlarge the feeder from the diversion works in the Mason Drain to the Caldwell Highline Canal, and take on the operation and maintenance of it, as well. The enlargement was to be made during the fall and winter of 1919-1920 so that it would not hinder the diverssion of water in the spring of 1920.	Abs 26	Mason Creek, Caldwell Highline

of particular facilities inserted by me. This map depicts the general area near Pioneer's Caldwell Highline Canal. On this map, the Office of State Engineer labeled the Strahorn Slough as the "Strayhorn Slough." Based upon my review of the aforementioned materials and information and my own observations, I believe that the "Back Slough" that is the source of Franklin's water right 63-5239 is not the same facility described in the 1883 agreement as the "Back Slough." I believe that the North Slough or Strahorn Slough referenced in Franklin's Stewart Decree testimony is the same facility as the Back Slough referenced in the 1883 agreement, which, according to the prior agreement and testimony, historically diverted from a location about twenty feet upstream of ("above") the Caldwell Canal head gate and conveyed 800 inches of water to Franklin water users. I also believe that the source of water referred to as the "Back Slough" in IDWR's recommendation of 63-5239 is the same facility as the South Slough, Waste Slough, or West Slough referenced in Franklin's Stewart Decree testimony, and as the outside or South Slough in the 1884 agreement, which, according to the prior agreement and testimony, historically diverted and conveyed 350 inches of water to Franklin water users.

3. Attached hereto as Exhibit C is a true and correct copy of an enlarged version of the legend to Sheet 32 of the "Boise River Survey of 1904" map, which demonstrates that the darker-yellow shaded areas on the map depict areas irrigated from the Caldwell Canal and blue shaded areas on the map depict areas irrigated from sloughs. Legends on other sheets for irrigation from Caldwell Canal and Sloughs are similar, and the irrigated areas are visible on the "Boise River Survey of 1904" map, including the portion included hereto as Exhibit B. Based upon my review of testimony from the Stewart Decree proceedings regarding the irrigation practices of the Franklin Ditch Company at that time, there appears to be a strong correlation between the Stewart Decree testimony and the shaded areas on the map.

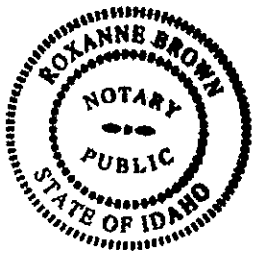
4. I have reviewed the March 1900 "Map to Accompany Plan of the Pioneer Irrigation District for the Construction of Works and the Acquisition of Property in Canyon and Ada Counties, Idaho" and the "Map of the Pioneer Irrigation District" dated May 18, 1901 that are attached as exhibits to the affidavit of Jennifer Stevens, Ph.D. Based upon my review of those maps and my personal knowledge and observation of the current Caldwell Highline Canal, both in person and through aerial photographs, maps, and other imagery, I believe that starting in Township 4 North, Range 2 West, Section 22, NWSW and heading from east to west, the old Caldwell Canal followed a different, more northerly course than Pioneer's current Caldwell Highline Canal. While the Highline Canal depicted in the 1900 and 1901 maps is denoted as being proposed at that time, the course of the proposed Highline Canal in those maps matches up much more closely with the current location of the Caldwell Highline Canal than does the old Caldwell Canal depicted in those two maps. The Caldwell Canal depicted on the 1900 and 1901 maps follows a similar, but not identical, route as the Caldwell Canal depicted on the Boise River Survey of 1904 map. In short, to the best of my knowledge, the length of the old Caldwell Canal beginning and running to the west from Township 4 North, Range 2 West, Section 22, NWSW is no longer utilized or operated by the Pioneer Irrigation District.

Further your affiant sayeth naught.

Scott King

Scott King

SUBSCRIBED AND SWORN to before me this 24 day of September, 2010.



Roxanne Brown

NOTARY PUBLIC FOR IDAHO
Residing at Boise, ID
My Commission Expires 5/16/2014

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 28th day of September, 2010, I caused a true and correct copy of the foregoing **AFFIDAVIT OF SCOTT KING, P.E.** to be served by the method indicated below, and addressed to the following:

Mason Creek Ditch Company
Represented by:
Albert P Barker
BARKER ROSHOLT & SIMPSON LLP
1010 W. Jefferson, STE 102
P.O. Box 2139
Boise, ID 83701-2139

(X) U.S. Mail, Postage Prepaid
(X) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Franklin Ditch Co.
Represented by:
Jon C. Gould
Daniel V. Steenson
RINGERT CLARK CHARTERED
P.O. Box 2773
Boise, ID 83701

(X) U.S. Mail, Postage Prepaid
(X) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Martin Galvin
P.O. Box 115
Middleton, ID 83644

(X) U.S. Mail, Postage Prepaid
( ) Hand Delivered
( ) Overnight Mail
( ) Facsimile

John J. McEvoy
1703 N. KCID Road
Caldwell, ID 83605

(X) U.S. Mail, Postage Prepaid
( ) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Director
IDAHO DEPARTMENT OF WATER RESOURCES
322 E. Front Street, 6th Floor
P.O. Box 83720
Boise, ID 83720

(X) U.S. Mail, Postage Prepaid
( ) Hand Delivered
( ) Overnight Mail
( ) Facsimile

Dylan B. Lawrence

EXHIBIT A

To the Affidavit of Scott King, P.E.

In Re SRBA Case No. 39576
Subcase Nos. 63-00166A, 63-00166B, 63-00167A,
63-00167B, 63-00179A, 63-00179C, 63-32580

Supervising Engineer

Scott N. King, P.E.

Education

M.S., Civil Engineering
University of Idaho

B.S., General Engineering
Idaho State University

Professional Certification

Professional Engineer
Idaho No. 7914, 1995

Certified Water Right Examiner
Idaho No. 11-133

Professional Affiliations

Member, ASCE

Member, AWRA

Areas of Expertise

- Water rights
  - investigations and analysis
  - permits and transfers
  - marketing and acquisitions
- Water resource investigations
- Water well design
- Surface water modeling
- Gravity irrigation systems
- Stream flow measurement
- Pumping efficiency evaluations

Experience Summary

Mr. King has over 18 years of professional and academic experience in water resources engineering. He is currently a Supervising Engineer with SPF Water Engineering, LLC and specializes in water right issues, water flow measurement, open-channel flow, pumping system design, water well design, and geographic information systems (GIS). Prior work includes 14 years experience in a broad variety of Idaho Department of Water Resources' (IDWR) programs including water rights adjudication, water rights administration, safety of dams, and energy efficiency. He also has recent experience developing surface water models and providing consulting engineering services while employed at DHI, Inc, formerly known as the Danish Hydraulic Institute.

SPF Water Engineering, LLC – 2005 to present

Mr. King is currently a Supervising Engineer with SPF Water Engineering, LLC. SPF was founded in March 2004 to provide hydrologic characterization, water resource development, and public water system design and regulatory compliance. Mr. King provides consulting services on water rights issues, pump design, irrigation system evaluation, surface water hydrology, surface water modeling, and river hydraulics. His recent project experience includes the following:

- Extensive water right experience including
  - permit and transfer applications
  - investigations and analysis
  - acquisitions and sales
  - beneficial use field examinations
  - adjudication claim preparation and support
- Gravity irrigation system design and analysis
- Stream flow measurement and monitoring
- Conveyance capacity determinations for streams, culverts, and other open-channel systems
- Water well design including designs to municipal public drinking water supply standards
- Well capacity determination
- Pumping system design

DHI, INC – 2004 to 2005

Mr. King worked as a senior project engineer responsible for development of various surface water models. Project experience includes the following:

Modeling – MIKE 11. Developed hydrodynamic 1-D MIKE 11 model of the Little Claggett Creek storm water drainage system, a part of Marion County's East Salem Service District, Oregon. Produced flood maps for SCS Type 1A design storms and for the February 1996 flood event. This model includes 8.5 km of streams in two branches, over 100 cross-sections extracted from a 2 ft vertical resolution DEM, and 23 culverts with corresponding broad-crested weirs representing roadways over culvert crossings. Inflow boundary conditions are represented by 21 catchments contributing point-source and distributed inflows simulated in MIKE 11's rainfall / runoff module.

Modeling – MIKE BASIN. Project lead on MIKE BASIN surface water distribution models developed for the Idaho Department of Water Resources. These models are used by IDWR for three primary purposes: flow enhancement tools to address flow-limited stream reaches; decision making tools to assist in selecting effective mitigation and restoration projects; and communication tools for educating decision makers and stimulating discussion among stakeholders. Developed systems include the Pahsimeroi River and East Fork Salmon River, and experiences with Lemhi River and Stanley Basin models. These models operate on a daily time step and represent the water distribution system within the basins including the stream networks, points of diversion, places of use, and locations of return flow. Time series information includes records of stream gaging, diversion measurements, precipitation, and evapotranspiration. Provided training to IDWR staff, contractors, and watermasters on the operation of MIKE BASIN through a series of hands-on sessions. Presented proposals to local waterusers and stakeholders for new model applications in Morgan Creek and Carmen Creek.

Modeling – Rainfall / Runoff. Developed lumped conceptual rain/snow/runoff models of the Stanley and East Fork Salmon River Basins for the Idaho Department of Water Resources using DHI's lumped conceptual rainfall/runoff module. The developed models are used to supply tributary inflow boundary conditions to the East Fork Salmon River and Stanley Basin MIKE BASIN models.

Developed rainfall/runoff models of 21 catchments supplying inflow boundary conditions for the Little Claggett Creek MIKE 11 model described above. Rainfall/runoff is simulated using DHI's URBAN module. Four storm events are modeled including the February 1996 observed event and SCS Type-1A 2-, 10-, and 50-year design storms.

Idaho Department of Water Resources – 1990 to 2004

During 14 years with the Idaho Department of Water Resources, Mr. King held four engineering positions and gained experience in a wide range of IDWR activities. These positions included Technical Engineer in the Adjudication Bureau, and Staff Engineer positions in the Water

Distribution Section, in Western Region's Safety of Dams unit, and in the Energy Division. Relevant experience includes the following:

Program Management

Managed Western Region's Safety of Dams program. Inspected dams and made recommendations for maintenance and operation to improve safety and meet state standards. Issued storage certificates and authorizations to fill.

Lead technical consultant in statewide water measurement program. Defined water measurement standards and implemented a program for measuring and reporting ground-water withdrawals. Coordinated field work performed by department staff and various measuring districts. Inspected contractor projects for adequacy and compliance with department standards. Designed and managed water measurement databases.

Water Rights

Reviewed complex water right claims and prepared water right recommendations for the Director's Report to the Snake River Basin Adjudication court. Provided technical analysis and recommendations for nonstandard water right claims, such as claims for diversion rates exceeding the standard allocation, and for claims to the use of water outside of the standard seasons of use.

Provided training and direction to new employees, water districts, water measurement districts, groundwater districts, and private consultants on water rights, water measurement programs, and adjudication procedures.

Worked with water users and their legal representatives on various water right enforcement issues, including excessive and illegal water diversions.

Experienced with all aspects of IDWR regional office operations including water rights, transfers, well drilling, adjudication, water district operation, violations, enforcement, and customer complaints.

Irrigation and Pumping Systems

Performed pumping system evaluations including determinations of municipal, industrial, and agricultural pumping plant efficiencies and recommended measures for improved efficiency and reduced operating costs. Provided recommendations and designs for conversions to low-pressure irrigation systems for reduced operating costs and improved yields.

Technical Expert to Snake River Basin Adjudication (SRBA) Court

Provided technical engineering support to department staff in the ongoing SRBA.

Designated as department expert to the SRBA court regarding irrigation requirements, evapotranspiration, and crop water requirements. and how this information is utilized for preparing recommendations.

Public Relations

Presentations at public meetings to explain laws and regulations relating to water measurement and water appropriation.

Provided conflict resolution support for several water related disputes.

Trained IDWR employees, state Watermasters and Hydrographers, contractors, and consultants on water measurement standards, equipment, practices, and procedures through regular training sessions and individual assistance.

Guest lecturer in 1996 and 1998 for College of Southern Idaho's Water Measurement course, and in 1998 for Boise State University's Water Measurement lab.

Presented *Selection and Installation of Pipe Flow Water Measurement Devices* at the 1997 Idaho Irrigation Equipment Show and Exhibition, Shilo Inn, Idaho Falls, January 8-9.

Technical

Developed and proposed to department administration and to the general public technically sound methods of using power records for estimation of pumped water diversions.

Determined acceptability and provided professional opinions for numerous non-standard water measurement methods and devices proposed to IDWR by engineering consultants and water users.

Determined conveyance capacity of pumps, diversions, pipelines, open channels, turbines, etc.

Led IDWR efforts to utilize global positioning systems (GPS). Developed standards for use, trained staff and consultants, and integrated GPS data collection into GIS work.

Report Development

Authored various reports including annual reports of ground water diversions, reports to individual water users, flowmeter accuracy reports, and various other reports relating to water measurement.

Co-author of *Eastern Snake Plain Aquifer Water Measurement Program, A Summary of Measurement Activity & Results from Basin 36 Project Area, 1995-1996 and a Review of Program Expansion in 1997,* IDWR, May 1998.

University of Idaho – 1999 to 2002

Masters of Science in Civil Engineering Thesis: The Effective Discharge Concept in Gravel Bed Stream Restoration: The Twelve Mile Reach of the Salmon River at Challis, Idaho.

Determined channel effective discharge based on sediment transport

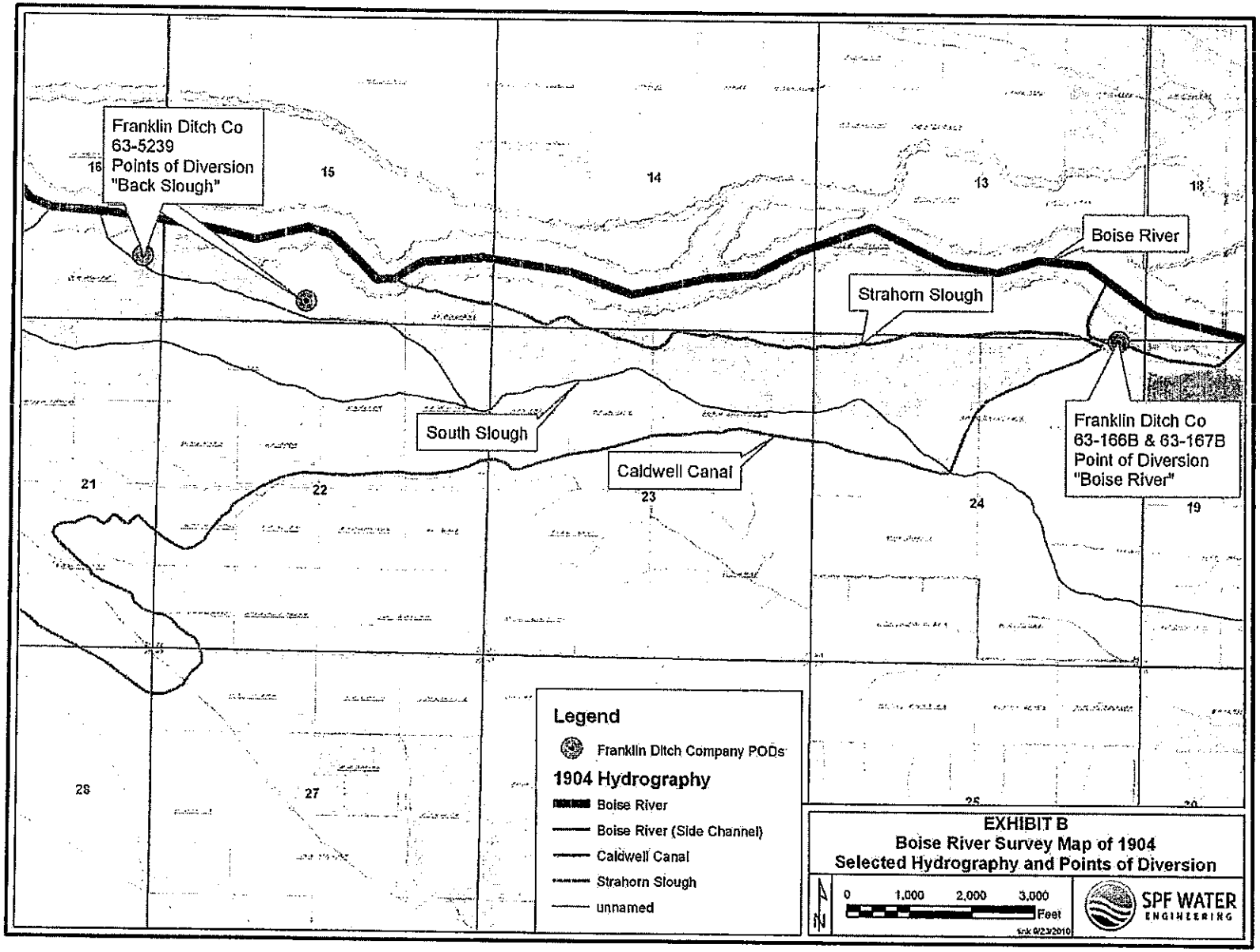
measurements and flow records. Compared effective discharge to bankfull discharge and stated implications of findings in regards to channel restoration. Completed hydraulic, hydrologic, and geomorphologic characteristics of the study reach. Presented findings and recommendations to technical groups and local property owners.

Developed hydrodynamic pseudo 2-D MIKE 11 model of the Twelve Mile Reach, Salmon River, near Challis, ID. Produced animated flood maps of primary flooding events from 1974 (100-yr), 1996, and 1997. This model includes 27-km of mainstem river including braided sections and split flows. Over-bank discharge into Hannah Slough and across One-Mile Island is represented by link-channels. The model includes 68 surveyed cross-sections and utilizes a 2-ft interval contour map for flood mapping.

EXHIBIT B

To the Affidavit of Scott King, P.E.

In Re SRBA Case No. 39576
Subcase Nos. 63-00166A, 63-00166B, 63-00167A,
63-00167B, 63-00179A, 63-00179C, 63-32580


Franklin Ditch Co
63-5239
Points of Diversion
"Back Slough"
Boise River
Strahorn Slough
South Slough
Caldwell Canal
Franklin Ditch Co
63-166B & 63-167B
Point of Diversion
"Boise River"
16
15
14
13
18
21
22
23
24
19
28
27
25
Legend
Franklin Ditch Company PODs
1904 Hydrography
Boise River
Boise River (Side Channel)
Caldwell Canal
Strahorn Slough
unnamed
EXHIBIT B
Boise River Survey Map of 1904
Selected Hydrography and Points of Diversion
N
0
1,000
2,000
3,000
Feet
SPF WATER
ENGINEERING

PID001052

EXHIBIT C

To the Affidavit of Scott King, P.E.

In Re SRBA Case No. 39576
Subcase Nos. 63-00166A, 63-00166B, 63-00167A,
63-00167B, 63-00179A, 63-00179C, 63-32580

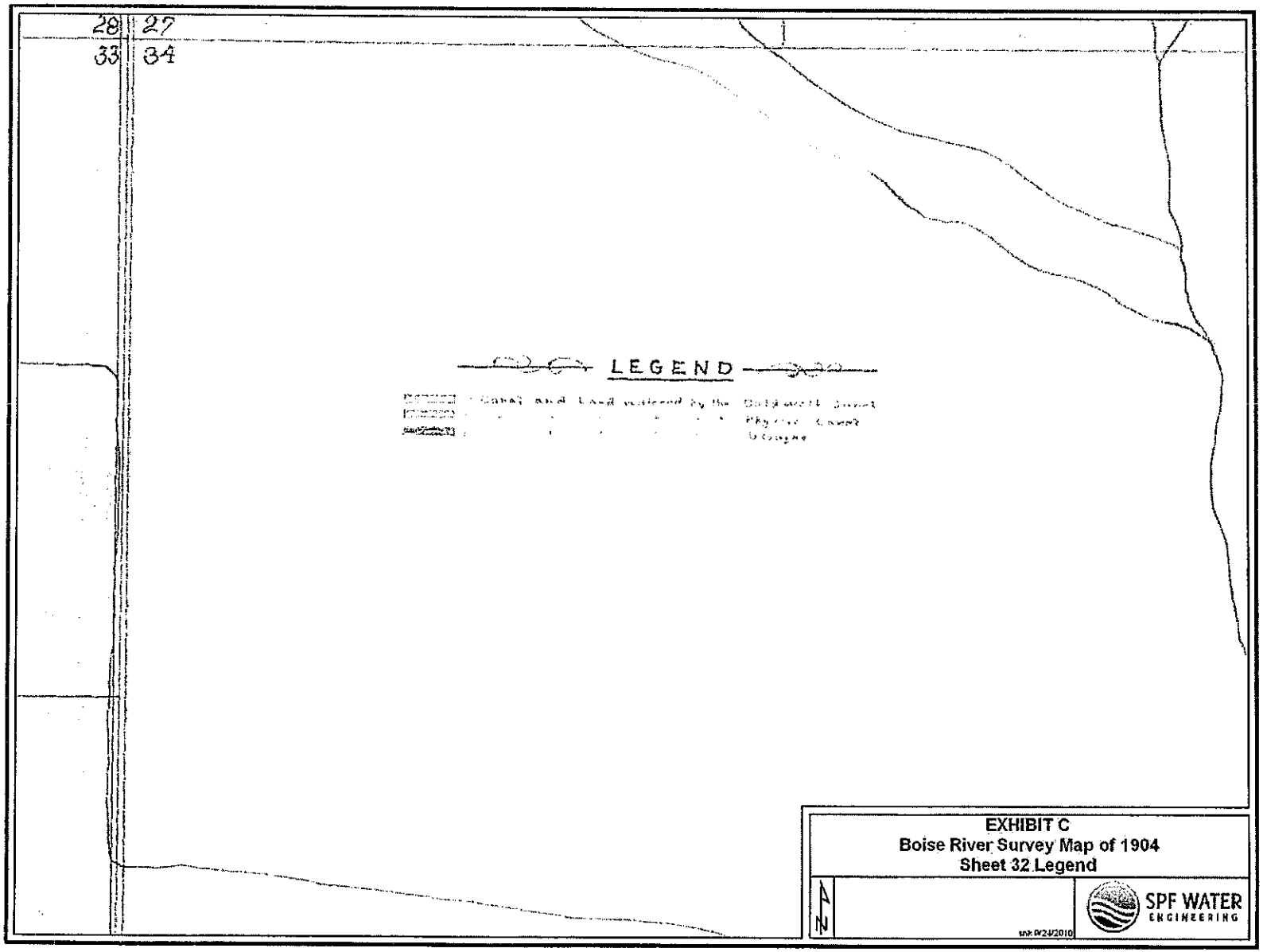


EXHIBIT C
Boise River Survey Map of 1904
Sheet 32 Legend

SPF WATER ENGINEERING

PID001054

COPY

DISTRICT COURT-SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho

OCT - 1 2010

By _____ Clerk
Deputy Clerk

Attorneys for Claimant and Objector
Pioneer Irrigation District

Scott L. Campbell, ISB No. 2251
Andrew J. Waldera, ISB No. 6608
Dylan B. Lawrence, ISB No. 7136
MOFFATT, THOMAS, BARRETT, ROCK & FIELDS, CHARTERED
101 S. Capitol Blvd., 10th Floor
Post Office Box 829
Boise, Idaho 83701
Telephone (208) 345-2000
Facsimile (208) 385-5384
18946.0137

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT

OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA

Case No. 39576

Subcase Nos. 63-00166A 63-00166B
63-00167A 63-00167B
63-00179A 63-00179C
63-32580

AFFIDAVIT OF SCOTT KING, P.E. IN OPPOSITION TO MASON CREEK DITCH COMPANY'S MOTION FOR SUMMARY JUDGMENT

STATE OF IDAHO)
) ss.
County of Ada)

SCOTT KING, having been duly sworn upon oath, deposes and states as follows:

1. My name is Scott King, P.E. I am a professional engineer specializing in water rights and water resource engineering. My full background and credentials have been previously set forth in my affidavit filed with this Court on September 28, 2010, and in Exhibit A to that affidavit, which I specifically incorporate herein by reference. I am competent to make this affidavit, and I make this affidavit based upon my own personal knowledge.

2. I have reviewed the catalog of water deliveries that is attached as Exhibit A to the affidavit of Pioneer Superintendent Mark Zirschky being filed contemporaneously with this affidavit. I have also conducted site visits of Pioneer's Caldwell Highline Canal and have personally observed its operation. In addition, I have reviewed the discovery responses provided by Franklin and Mason regarding their diversions of water from the Caldwell Highline Canal, IDWR's Director's Report recommendations for water rights 63-166B and 63-167B in the name of the Franklin Ditch Company and water right 63-179C in the name of the Mason Creek Ditch Company, as well as the digital GIS recommended place of use and point of diversion shapefiles associated with those recommendations that are available in IDWR's online electronic water right database.

3. It is my understanding that water deliveries noted as "FREE DEL" or "FREE DELIVERY" in Pioneer's water delivery catalog are generally associated either with water users of the Franklin Ditch Company or the Mason Creek Ditch Company, though the catalog for the most part does not distinguish between the two. However, based upon my personal observation of the operation of the Caldwell Highline Canal, IDWR's water right recommendations and imagery, Franklin's discovery response that its water users have thirteen (13) diversions from the Caldwell Highline Canal, and information provided in Mason's discovery responses, I have prepared the map attached hereto as Exhibit A which I believe

accurately depicts the locations of water deliveries from the Caldwell Highline Canal to Franklin and Mason water users.

4. Based upon the water delivery catalog and the other information previously described, the total acreage irrigated out of the Caldwell Highline Canal by Franklin water users is approximately 1,849.9 acres, and the total acreage irrigated out of the Caldwell Highline Canal by Mason water users is approximately 78 acres. In addition, there are 144.6 acres where it is not clear from the water delivery catalog, the discovery responses provided by Franklin and Mason, and/or headgate locations if the water users belong to either Franklin Ditch Company and/or Mason Creek Ditch Company. The sum total in the water delivery catalog of "Free Deliveries" provided to both Franklin and Mason water users is 2,072.5 acres. While there are not currently measuring devices on the majority of the Franklin and Mason diversions from the Caldwell Highline Canal, it is my understanding that, where measurement is possible, Pioneer's policy is to deliver 0.02 cfs, aka "one inch," of water per acre of irrigated land. Based upon the information that I utilized to prepare Exhibit A, if that same standard were applied to the deliveries described in the delivery catalog for illustrative purposes, this would result in the delivery of 37 cfs of water out of the Caldwell Highline Canal to water users associated with the Franklin Ditch Company, 1.56 cfs of water out of the Caldwell Highline Canal to water users associated with the Mason Creek Ditch Company, and an additional 2.89 cfs of water out of the Caldwell Highline Canal that is presently unaccounted for, but which could be delivered to some combination of water users associated with Franklin Ditch Company and/or Mason Creek Ditch Company.

5. The conclusion that Mason Creek Ditch Company water users have historically diverted and beneficially used only small quantities of Boise River water conveyed

through the Caldwell Highline Canal is further supported by an analysis of the hydrography and flow regime of the canal system. Pioneer's delivery book indicates that deliveries to Mason Creek Ditch Company from the Caldwell Highline Canal occur from the Weymouth "100" Lateral and from other laterals from the Caldwell Highline Canal downstream of the Weymouth "100" Lateral, all of which divert from the Caldwell Highline Canal downstream of its crossing with Fivemile Creek. However, by the time the Caldwell Highline Canal reaches the Weymouth "100" lateral, the canal has already passed 12 of the 13 headgates associated with Franklin Ditch Company water users, and a turnout from the Weymouth "100" lateral constitutes the 13th headgate associated with Franklin Ditch Company. Based upon my personal observation of the operation of the Caldwell Highline Canal and Pioneer's water delivery catalog, I believe the majority of the Boise River water diverted into the Caldwell Highline Canal at its heading on the river has already been diverted by these Franklin water users by the time the canal reaches the Weymouth "100" lateral.

6. Instead, by the time the Caldwell Highline Canal reaches the Weymouth "100" lateral, the majority of canal flows consist of water from sources other than the Boise River. The most significant source of this water is a feeder canal which diverts and conveys water from Fivemile Creek into the Caldwell Highline Canal. In addition, there are a number of waste ditches which empty into the Caldwell Highline Canal upstream of the Weymouth "100" lateral. These are the waste ditch associated with the 5.3 Lateral, two waste ditches associated with the 5.17 Lateral, and an unnamed waste ditch upstream of William Clayton's bridge crossing the Caldwell Highline Canal.

7. Based upon this information, I believe water users associated with the Mason Creek Ditch Company have historically diverted and beneficially used only limited

quantities of water from the Caldwell Highline Canal. And, to the extent Mason water users have diverted and beneficially used water from the Caldwell Highline Canal, I believe a significant percentage of that water has consisted of Fivemile Creek water and waste water, rather than water diverted from the Boise River at the heading of the Caldwell Highline Canal.

8. Instead, it appears more likely that Mason Creek Ditch Company water users have historically obtained their water from Mason Creek and Fivemile Creek. This conclusion is supported by the fact that IDWR has recommended water right 63-32580 in the name of Mason Creek Ditch Company for the diversion of up to 17 cfs of water from Mason Creek with a priority date of March 1, 1922, and that the Company has also filed a late SRBA claim (63-33392) to 17 cfs of water diverted from Fivemile Creek with a priority date of June 1, 1869.

Further your affiant sayeth naught.

Scott King

SUBSCRIBED AND SWORN to before me this 1 day of October, 2010.

LORI GRAVES NOTARY PUBLIC STATE OF IDAHO

NOTARY PUBLIC FOR IDAHO
Residing at Boise
My Commission Expires 5/6/2015

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 1st day of October, 2010, I caused a true and correct copy of the foregoing **AFFIDAVIT OF SCOTT KING, P.E. IN OPPOSITION TO MASON CREEK DITCH COMPANY'S MOTION FOR SUMMARY JUDGMENT** to be served by the method indicated below, and addressed to the following:

Mason Creek Ditch Company Represented by: Albert P. Barker Shelley M. Davis BARKER ROSHOLT & SIMPSON LLP 1010 W. Jefferson, Suite 102 P.O. Box 2139 Boise, ID 83701-2139	( ) U.S. Mail, Postage Prepaid (X) Hand Delivered ( ) Overnight Mail ( ) Facsimile
Franklin Ditch Company Represented by: Daniel V. Steenson Jon C. Gould RINGERT CLARK CHARTERED P.O. Box 2773 Boise, ID 83701	( ) U.S. Mail, Postage Prepaid (X) Hand Delivered ( ) Overnight Mail ( ) Facsimile
Martin Galvin P.O. Box 115 Middleton, ID 83644	(X) U.S. Mail, Postage Prepaid ( ) Hand Delivered ( ) Overnight Mail ( ) Facsimile
John J. McEvoy 1703 N. KCID Road Caldwell, ID 83605	(X) U.S. Mail, Postage Prepaid ( ) Hand Delivered ( ) Overnight Mail ( ) Facsimile
Director IDAHO DEPARTMENT OF WATER RESOURCES 322 E. Front Street, 6th Floor P.O. Box 83720 Boise, ID 83720	(X) U.S. Mail, Postage Prepaid ( ) Hand Delivered ( ) Overnight Mail ( ) Facsimile

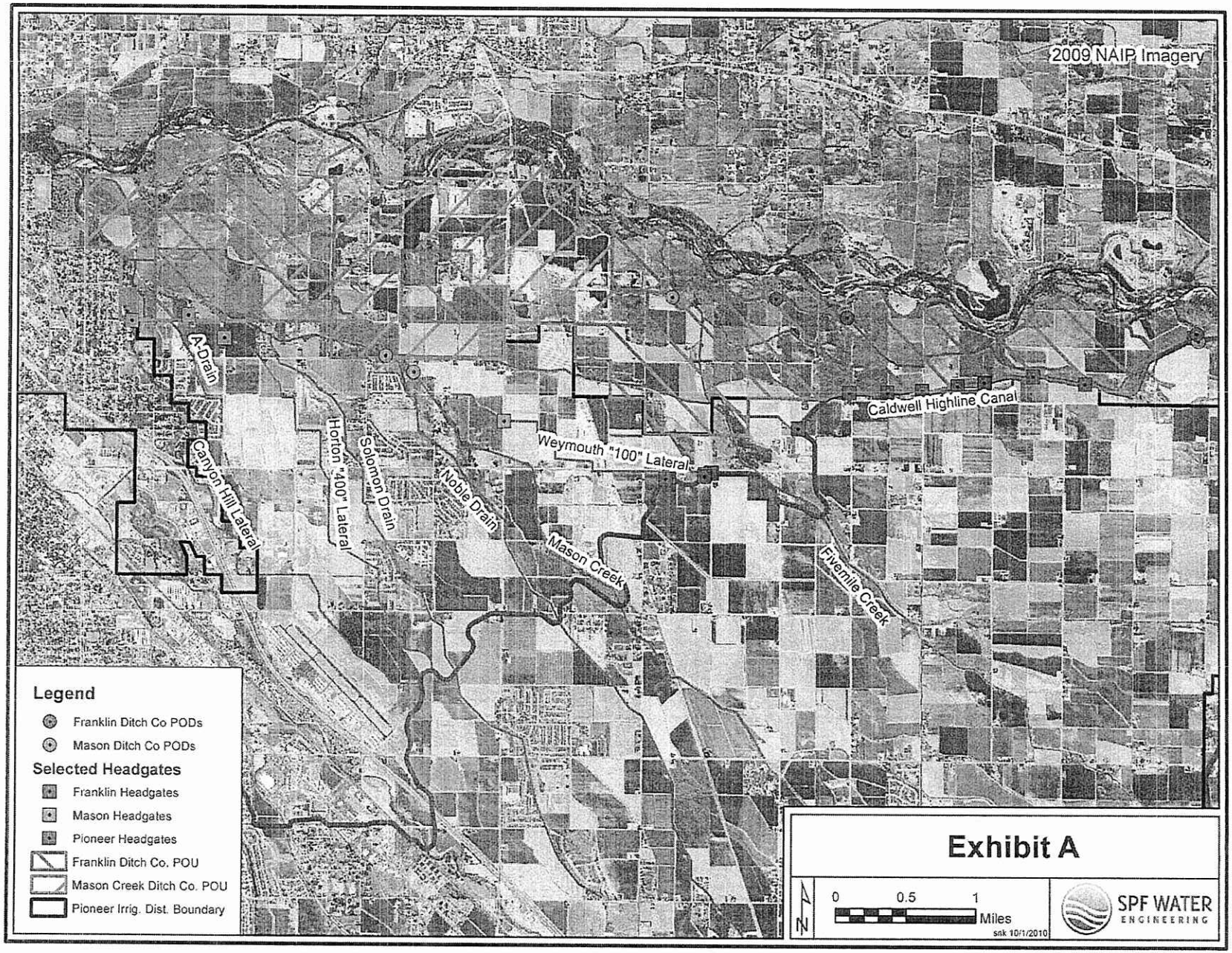
Dylan B. Lawrence

EXHIBIT A

To the Affidavit of Scott King, P.E. in Opposition to Mason Creek Ditch Company's Motion for Summary Judgment

In Re SRBA Case No. 39576

Subcase Nos. 63-00166A, 63-00166B, 63-00167A, 63-00167B, 63-00179A, 63-00179C, 63-32580


2009 NAIP Imagery
A-Drain
Canyon Hill Lateral
Horton "100" Lateral
Solomon Drain
Noble Drain
Weymouth "100" Lateral
Caldwell Highline Canal
Mason Creek
Fivemile Creek
Legend
Franklin Ditch Co PODs
Mason Ditch Co PODs
Selected Headgates
Franklin Headgates
Mason Headgates
Pioneer Headgates
Franklin Ditch Co. POU
Mason Creek Ditch Co. POU
Pioneer Irrig. Dist. Boundary
Exhibit A
N
0
0.5
1
Miles
snk 10/1/2010
SPF WATER ENGINEERING

PID001062

PID001063

SRBA Highline Report

Date	Event	Source	Subject	SRBA?
3/15/1884	Contractor John McCollum reported "good progress" on the "town ditch." Eight miles have been completed, with six miles to go. McCollum states that the ditch will put water into the city reservoir by May 1st.	Caldwell Tribune 3/15/1884	caldwell ditch,	
2/20/1886	Work on the high line canal south of Caldwell is progressing, reports the Caldwell Tribune.	Caldwell Tribune 2/20/1886	high line, caldwell,	
8/21/1889	Caldwell ditch by now heads 18 miles below Boise and is running 15 miles long to the West, watering the lower bench lands, measuring 6 feet wide on the bottom.	Idaho Statesman, 8/21/1889	caldwell,	
5/2/1891	The Caldwell Real Estate & Water Company took possession of the Caldwell Canal last fall and it is now a great success, according to the Caldwell Tribune.	Caldwell Tribune 5/2/1891	caldwell real estate,	
10/31/1891	Fowler, Hand, and Arnett were surveying the High Line ditch for the Caldwell Real Estate and Water Company. It was above their present canal and was about ten miles long. No formal action had been taken other than surveying and obtaining estimates.	Caldwell Times 10/31/1891	fowler, hand, arnett, high line,	
10/31/1891	Fowler, Hand, and Arnett are surveying the ditch known as the High Line, for the Caldwell Real Estate & Water Company. It is about 10 miles long and above their present canal.	Caldwell Tribune 10/31/1891	high line, caldwell real	
11/7/1891	The High Line Ditch survey was completed satisfactorily last Wednesday. The ditch was projected to be twelve miles long and twelve feet wide at the bottom, was within 23 feet of the Phyllis elevation, and was to irrigate about 3000 acres. It was 14 feet 3 inches higher than the Strahorn ditch. For the first 10 miles, it had a fall of 21 inches to the mile, 25 inches to the mile for the remainder of its length.	Caldwell Times 11/7/1891	high line,	
12/21/1892	Discussion over enlarging the Strahorn Canal and building the High	Idaho Statesman, 12/21/1892	strahorn, high line,	
12/21/1892	Statesman reports that the Strahorn Canal may be enlarged and that the High Line canal is under consideration.	Idaho Statesman, 12/21/1892,	strahorn, high line,	

Date	Event	Source	Subject	SRBA?
3/26/1893	Statesman reports that the Phyllis, High Line, and Strahorn Canals would all soon be under new management.	Idaho Statesman, 3/26/1893,	strahorn, phyllis, high line,	
5/25/1893	Strahorn Canal headgate is located near the Star wagon bridge.	Idaho Statesman, 5/25/1893,	strahorn,	
7/1/1893	Owners of the Pyllis Canal are reported to be contemplating the idea of constructing a lateral that would serve acreage in and around Caldwell.	Idaho Statesman, 7/1/1893	phyllis, caldwell lateral,	
3/11/1894	The Caldwell Real Estate and Water Company will begin work at once on a new headgate for the Strahorn Canal. The Phyllis Canal Company is considering a lateral into Caldwell.	Idaho Statesman, 3/11/1894	strahorn, phyllis, caldwell real estate,	
4/20/1894	The headgate of the Strahorn is in danger of being swept away. It is located near the Star bridge.	Idaho Statesman, 4/20/1894	strahorn,	
6/13/1895	Citizens attempt to form an irrigation district and build a "high line extension" of the Strahorn Canal.	Idaho Statesman, 6/13/1895,	strahorn, id,	
11/17/1899	Committee of people in Canyon County report that they have obtain A.J. Wiley to report on the Strahorn and Phyllis ditches. Ditches and water rights under each were offered at $10,000 and $75,000 respectively. Wiley reported that the acreage under the high line survey of the Caldwell ditch was 12,542. He suggested the new ditch leave the old ditch at Ten Mile, and then use the old ditch as a distributing lateral. To water this land would require enlargement of the canal, a ditch on the side hill measuring 24 feet wide on the bottom, 3.5 feet deep, and 10 feet wide on the top. He claimed it would cost $43,000 in addition to the $10,000 cost quoted to the potential irrigation district buyers.	Idaho Statesman, 11/17/1899	wiley, strahorn, caldwell high line, phyllis,	
12/23/1899	Two irrigation districts were initially proposed. First, a district under the so-called "Caldwell High Line" canal, and second, a larger district comprising territory under both the Caldwell High Line and the Phyllis. The High Line district contained about 12,000 acres and the Phyllis territory about 22,000, almost all of which in the latter district was considered susceptible of cultivation. State Engineer Ross opposed the larger district for some reason, but was not forthcoming about why.	Caldwell Times, 12/23/1899	phyllis, pid, high line, caldwell, ross,	

Date	Event	Source	Subject	SRBA?
3/11/1900	State Engineer Ross met in Caldwell with the directors of the new Pioneer Irrigation District. The Pioneer District is reported to have purchased the Caldwell canal and is in negotiations to purchase the	Idaho Statesman, 3/11/1900	ross, pid, phyllis, caldwell,	
7/26/1900	Pioneer Irrigation District holds its first bond election on the next Saturday, to purchase and enlarge the Phyllis and Caldwell canals.	Idaho Statesman, 7/26/1900;7/28/1900 - Idaho Leader	phyllis, caldwell, pid,	
8/14/1900	Some of the farmers under the PID disagree with the Board over whether to acquire the Caldwell Canal. Being low water season, it is clear that there is not enough water in the Phyllis to reach the lower lands, but seepage from the lands between the Phyllis and the Caldwell flows into the Caldwell Canal and can provide "a good big stream for the latter." Not owning the Caldwell would put the district at a disadvantage.	Caldwell Times 8/14/1900	caldwell, phyllis, seepage, return,	
10/6/1900	Courts are examining the Pioneer organization and if they approve of the steps taken so far, they will legitimize the district beyond any question. Once the courts have acted, bonds in the amount of $125,000 will be offered for sale and a portion of the money will be used for the purchase of the Phyllis and Strahorn (Caldwell) Canals. The remaining money will be used for improvements which are to be begun this fall. Improvements to be made included enabling the canals "to put a sufficient amount of water on the bench so that there will be no scarcity next year."	Caldwell Times 10/6/1900	bond, phyllis, caldwell, improvement,	
1/1/1901	Pioneer Irrigation District organized in 1901 to take water from the Boise River through the Phyllis and Caldwell Canals for the irrigation of 36,500 acres.		pid, phyllis, caldwell,	
1/1/1901	Boise & Nampa Irrigation and Power Company's Canal System map dated 1901 shows the Strahorn Ditch taking out of section 19 in township 4 North, Range 1 West, and runs to the southwest to section 36 of Township 4 North, range 3 West, where it heads in a more directly west fashion until it ends in section 34. This is the same as the Caldwell	Boise & Nampa Irrigation and Power Company's Canal System map dated 1901	strahorn, map, caldwell,	
1/16/1902	The PID Board met and decided the price for improved lands needed for the right of way for the Caldwell High Line extension would be $25, and unimproved land would be $12.50 per acre.		high line, caldwell, pid,	
6/24/1902	PID purchased the Caldwell Canal, closed the deal today.	Idaho Statesman, 6/24/1902	pid, caldwell,	

Date	Event	Source	Subject	SRBA?
10/1/1902	It is proposed this year to complete the sidehill work on the Phyllis and Strahorn canals. The survey of the Highline is also nearly completed.	Idaho Leader 10/1/1902	Strahorn, Phyllis, improvements	
12/11/1902	PID Board accepts bid of Faris and Kesl for enlargement work on the Caldwell and Phyllis Canals.	pid, caldwell, phyllis, Idaho Statesman,	Minutes of board,	
12/12/1902	Big contract signed for enlargement work on the Phyllis. Faris and Kesl were the contractors, and for $65,000, they planned to enlarge the canal from the headgate all the way to 5 Mile (six miles), making it 28 feet wide (whereas it was currently only 14) with a width of 45 feet on top. It will become a feeder canal to the Caldwell, in order to water all of the 35,000 acres of lands under the district plus a new tract. The men would begin work immediately and were expected to complete the work by April	IS, 12/12/1902;Idaho Leader 12/10/1902 &	phyllis, faris, enlarge,	
9/12/1903	Contractors were in town for the PID board meeting, where opened bids to build the Caldwell High Line Canal, taking out of the river 6 miles above Caldwell. It is intended to water the higher bench lands, be 10 miles in length, and in the form of a crescent.	Idaho Statesman, 9/13/1903	caldwell high line, pid,	
9/14/1903	PID planned to award the contract to build the Caldwell High Line Canal in one week, on the 20th.	Idaho Statesman, 9/14/1903	caldwell high line, pid,	
2/6/1904	PID directors met to decide whether to issue $40k in bonds to complete the work on the Phyllis and the High Line canals.	Idaho Statesman, 2/6/1904,	phyllis, high line, pid,	
3/14/1904	The board of the PID met at the head of the Phyllis canal last week, making a thorough investigation of the entire side-hill section, and reporting favorably on its condition, despite the wet and stormy weather that has slowed the contractors down. By the end of next week, water will be turned in, and it will take ten days to "thoroughly puddle the side hill section." The Caldwell High Line side hill was also virtually complete and puddling either has or will be begun soon. The work of putting in the new head gate was completed the previous Monday.	Caldwell Times 3/14/1904	phyllis, high line, side hill, head gate, pid, caldwell,	
6/5/1905	PID stationery claims that the Phyllis Canal is 35 miles long and covers 23,400 acres. It also states that the "Caldwell High Line Canal" is 18 miles long and covers 11,000 acres.	arch 57	pid, phyllis, caldwell, high line,	

Date	Event	Source	Subject	SRBA?
12/8/1906	A "Small land owner" (who remained anonymous) wrote into the Caldwell Tribune to take issue with A.J. Wiley's assessment of the PID's needs. The author indicated that water was being wasted throughout the district, and that the Phyllis did *not* need to be enlarged, as some were advocating. He notes that the old Caldwell canal had no fall to speak of, while the new High Line portion of the canal was dropped some 10 to 15 feet at Indian Creek.	Caldwell Times 12/8/1906	caldwell, high line, pid, wiley, phyllis,	
10/19/1911	PID passed resolutions looking to the drainage of its lands and employed an engineer who has been at work for three weeks making surveys for the purpose of ascertaining the feasibility of said plan to construct large drainage ditches for the collection of the water and to pump it into the high-line ditch near Caldwell.	arch 77,	highline, pid, drainage, usrs,	
5/11/1912	Supplemental Water Supply map for the PID shows the "Caldwell High Line" in the same location and configuration as the Strahorn and Caldwell Low Line is depicted on other maps. Low Line was how it was referred to by 1933.	Supplemental Water Supply map for the PID,	strahorn, map, caldwell, high line,	
8/2/1916	U.S. and Nampa Meridian sign a contract regarding the construction of three outlet ditches into the Phyllis and Caldwell High Line Canals from Five and Ten Mile Drains.	1917 Green report, RG115,	phyllis, caldwell, five mile, ten mile, nampa, reclamation, pid, drainage,	

State of Idaho
DEPARTMENT OF WATER RESOURCES
STATE OFFICE, 450 W. State Street, Boise, Idaho

JOHN V. EVANS
Governor

A. KENNETH DUNN
Director

Mailing address:
Statehouse
Boise, Idaho 83720
(208) 334-4440

ADMINISTRATOR'S MEMORANDUM

Transfer Processing No. 6

TO: Regional Offices & Water Allocation Section

FROM: Norman C. Young NCY

DATE: September 27, 1982

RE: Expansion of a Water Right via a Transfer

When an Application For Transfer is received, the individual performing the initial staff analysis must take a close look at the possibility of enlargement or expansion as a result of the transfer. Item 5(h) of the Transfer Analysis Sheet indicates to "check for expansion". The purpose of this memorandum is to identify how to perform this check.

Each water right in the state is limited by three parameters: rate of flow, volume, and consumptive use. Expansion of any of these parameters must be prevented. Therefore, the following items should be checked:

1. Insure that the rate of flow is not increased by comparing the rate before and after the transfer.

2. Insure that volume is not increased by comparing volume before and after the transfer.

3. Insure that consumptive use is not increased. This factor should be carefully evaluated for transfers of place of use. First, a very precise determination should be made of all existing water rights on the original place of use (Land A), and the transferred place of use (Land B). This determination should be made using all available resources (computer, plats and maps). Then the following factors should be evaluated:

   a. When water is moved from land A to land B, land B shall not include more acres than land A. Thus, for each newly irrigated acre, one acre must be removed from irrigation.

   b. In most cases when water is moved from land A to land B, all existing water rights on land A must be moved to land B. For example, in many cases a 40 acre tract will have several decreed rights. If one of the decreed rights is transferred, they must all be transferred to the same place of use.

An exception is when a wateruser desires to transfer a "secondary" water right from land A to become a "secondary" water right on land B. This type of transfer is acceptable if the average annual volume diverted and consumptive use are not increased as a result of the transfer. For example, a supplemental groundwater right can be transferred from land A (which has decreed surface water rights) to land B (which has decreed surface water rights), if no increase in volume diverted or consumptive use results.

Another exception is when a surface water right is moved from land A to land B, leaving a junior groundwater right on land A. If the land is not located within a critical groundwater area, and if the Department would in general approve a new groundwater right on land A if an application were submitted, the existing groundwater right can be left on land A.

Each of the factors above must be evaluated for every transfer application to insure that expansion is prevented.

Nov 8, 1920.

The Board of Directors met pursuant to adjournment; present W A Shupe, President, J O Baum, Director and Fred L Evans, Secretary.

Superintendent John May reported having lost the following warrants which he took out for delivery: all of same being dated Nov 2, 1920:

No 82,	Wyatt Smith,	$ 14.00
No 83,	Tom Smith,	26.25
No 121,	L D B Ranney,	52.50
No 135,	Jardner Haydock,	28.00
No 145,	Elmer Sandy,	44.50
No 167,	Stone Lumber Co	187.50

As Supt. May was quite confident these were lost on the ditch bank just ahead of a man harrowing and burning weeds and that they were destroyed, duplicate warrants were ordered issued in lieu of same, in compliance with which warrants Nos 220 to 225 consecutively to the above named persons for the amounts mentioned.

The following resolution was presented and unanimously adopted:

WHEREAS, Fred McConnell, well known and competent irrigation engineer, under his emplpyment by the Board of Directors has made a report of his surveys, examinations, plan and estimates to the Board, and the same are certified by him and accepted and filed, and the estimates and plans are hereby to be adopted and included in the general plan to be adopted by the Board of Directors for the cement lining a portion of the hill side of the Phyllis Canal, and other portions of the Phyllis Canal, constructing dams in the channels of Boise River, purchasing a dredge and constructing drainage ditches and headgates for Caldwell Highline Canal and lateral headgates, and the Board of Directors has under consideration a general plan, and the following is adopted as the general plan for cement lining a portion of the hill side of the Phyllis Canal, and other portions of the Phyllis canal, constructing dams in the channels of the Boise River, purchasing a dredge, constructing drainage ditches, and head gates for Caldwell High Line Canal, and lateral headgates.

It appearing that certain portions of the side hill of the Phyllis Canal have necessary a cement lining in order to prevent as much as possible seepage, and also render the canal less liable to break where the same skirts the hillside, and the hill side portion of the canal necessary to be lined, in the opinion of this Board and its Engineer, is from Station 62--50 to Station 210--50, a distance of 14,800 feet or 2.8 miles; and there are other portions of said Phyllis Canal which are necessary to be lined in order to strengthen the banks and prevent waste by seepage, and also increase the capacity of the canal in order that sufficient water may be rendered to the lands within the boundaries of the Pioneer Irrigation District, which portions are here designated but hereinafter specifically set forth: Below Mason Creek flume; above the old reservoir embankment; the curve north of Mason Creek flume; south of Purdam drain; In the NW¼, Sec. 7, Twp 3 N, R. 1, W. B. M; below Ten Mile flume.

The condition of the channel of Boise River at the head of Caldwell High Line canal makes it necessary that a dam be constructed in the south or first channel of the Boise River, and also that a dam be constructed in the north or main channel of said river, in order that water may be diverted from said river into the canal of this District.

There are about 400 acres of land near Caldwell that are water logged and it will be necessary that the same be drained on the north side of Caldwell between the railroad and t the foot of the Canyon hill; that the City of Caldwell and other corporations will be bennefitted, and the Pioneer Irrigation District thinks it will stand 35% of the cost of the construction of said drainage.

PID067530

PID001070

HILL SIDE LINING OF PHYLLIS CANAL.

This section of the Phyllis canal runs along a steep side hill, and is almost entirely in gravel formation which has been deposited upon a hard clay or shale subsoil. Under these conditions the canal is subject to breaks, especially after the gravel is filled with water to the extent that it begins to flow along the hard clay or shale subsoil. This condition not only makes it very expensive to repair a break, but also is liable to cause great loss by drying out of crops which are supplied with water from this canal.

At present it is necessary to keep men on this section of the canal, day and night, to prevent, as far as possible, these breaks and to report any signs of leaks or dangerous conditions along this embankment. These helpers could be dispensed with if the canal were lined. Also there is a very appreciable loss of water through this section by seepage, which is quite an item in the dry part of the season. This loss has been determined by the water-master on the Boise River amounts to 1500 miners inches.

The average bottom width of the canal through the side hill section is 36 feet, with side slopes of 1½ to 1, and at a maximum flow carries a depth of 4.5 feet.

In making up the estimates for the lining the figures are based on a 4-inch lining, the same to be made from a concrete mixture of the following proportions: One part of good standard cement, two parts of good clean sharp sand, and five parts of gravel, making a 1:2:5 mixture.

Material may be gotten along the line of the canal but most of it will have to be screened or carefully selected so that no stone larger than 2½ inches in diameter will be used in the concrete mixture.

In placing the concrete care must be taken to thoroughly iron or float the surface so that the same will be smooth, uniform and true to grade. Ragged or rough places are the result of careless work, and contractors should not be permitted to smooth them by plastering.

The lining should be placed in about sixteen foot sections and by alternating these sections the joints between them may be made to act as expansion joints. If one section must follow another closely, a strip of expansion paper material should be placed in the joint (a thin strip of soft white pine has been found to make a very good expansion joint). Where there are seepages from the upper bank it will be necessary to place weep holes or small drain pipes in the lining extending back to properly drain same the banks.

In preparing the canal section for the concrete lining all sods and vegetable deposits must be removed and the sides and bottom well tamped so that there will be no settlement which will create voids which will later fill with water which may freeze and heave the lining. Where there is surface or waste water entering the canal the same shall be confined in either wooden or concrete troughs. There is an average of about one yard of material to be removed, in preparing the can for lining, to each lineal foot of canal lined, or approximately 15,000 cubic yards.

The following is an estimate of the cost of the 14,600 lineal feet of canal section to be lined and the same is based upon the conditions described above, including drain boxes all complete:

Canal lining, 10,047 cu. yds. @ $15.00 per yard.	$150,705.00
Preparing canal bed, 15,000 cu. yds. @ 40¢ per yd.	6,000.00
Bridge repairs, engineering and contingencies	3,600.00
TOTAL	$159,305.00

PID067531

PID001071

BANK LINING ON PHYLLIS CANAL.

The following is an estimate of the concrete bank lining which is is contemplated to install in the Phyllis Canal for the purpose of strengthening banks, preventing waste by leakage, and to generally increase the capacity of the canal.

The attached plan represents the general type of lining to be used and will be uniform throughout the canal, excepting that the slopes may be changed from a 1½ to 1, to a 1 to 1 slope as may be necessary to suit the conditions for lining the different segments along the canal. The segments and amounts to be lined are set out as follows:

125 lineal feet of lining on south bank of canal below Mason Creek flume @ 4.5 Cu. ft. per lineal foot - 562.5 cu.ft.

380 lineal feet of lining on north bank of canal above Mason Creek flume @ 4/5 cu. ft. per lin. ft. - 1710.0 cu. ft.

350 lineal feet of lining on north and west bank of canal at south end of old reservoir embankment, 4.5 cu. ft. per lin. ft. - - - - - - - - - - - - - - 1575.0 cu. ft.

395 lineal feet of lining on south bank of canal along curve north of Mason Creek flume in Sec. 14, Twp 3 N., R 2 W. B. M., @ 4.5 cu. ft. per lin. ft. - 1777.5 cu. ft.

300 lineal feet of lining south of Purdam drain on lower bank of canal @ 4.5 cu. ft. per lin. ft. - 1350.0 cu. ft.

220 lin. ft. of bank lining in NW¼ Sec. 7-3-1 on lower side of canal @ 4.5 cu. ft. per lin. ft. - 990.0 cu. ft.

386 lin. ft. on lower side of canal below Ten Mile flume @ 4.5 cu. ft. per lin. ft. - 1737.0 cu. ft.

150 lin. ft. on upper side of canal below Ten Mile flume @ 4.5 cu. ft. per lin. ft. - 675.0 cu. ft.

10376.0 cu. ft.
or
384.3 cu. yds.

384.3 cu. yds. @ $16.00 per cu. yd - $ 6,148.00

SOUTH CHANNEL DIVERSION DAM FOR HIGH LINE CANAL CONTAINING TWELVE STANCHIONS.

The following is the estimate of the cost of construction of a diversion dam in the south or first channel of the Boise River, the dam to be constructed according to ~~plans~~ attached plans which are made a part of this resolution. The dam is designed to be constructed in such a way that the channel may be thrown open at a moderate stage of the river, and during high water or may be entirely closed during the low stages. When the dam is open there is no obstruction to the natural flow and will not be injured by ice or drifts.

The concrete used in the construction of the dam will be according to the dimensions shown on the accompanying plans and be composed of a mixture of one part of cement, two parts of good clean sharp sand and five parts of gravel, making a 1 : 2 : 5 mixture.

The lumber used in the dam, such as run plank flash boards and stanchions, is to be of good fir material (No. 1 common material) of the sizes and dimensions shown on the plans.

CONCRETE

129 lineal feet of floor @ 27 cu. ~~yds~~ ft. per lin. ft - - - - - - - - - - - - - 3483 cu. ft.

124 lineal feet Wing wall - 1508.9 cu. ft.

TOTAL CUBIC FEET - - - - - - - - - - - - - - - - 4991.9
or
184.9 cu. yds.

184.9 cu. yds. @ $20.00 per yd. - $3,698.00

LUMBER.

2625 ft. B. M. @ $55.00 per M - $ 144.38

Hardware, nails and re-enforcing - 83.37

TOTAL - $3,925.75

ESTIMATE NORTH CHANNEL DIVERSION DAM FOR HIGH LINE CANAL. (Length 169 feet)

The following is the estimate of cost of construction of diversion dam in the north or main river channel of the Boise river to divert water from the main channel of the Boise

river into the High Line Canal. The dam is to be constructed according to the attached plans which are made a part of this resolution. It is designed to be constructed in such a way that the channel may be thrown open at a moderate stage of the river, and during high water or may be entirely closed during the low stages. When the dam is open there is no obstruction to the natural flow and will not be injured by ice or drifts.

The concrete used in the construction of the dam will be according to the dimensions shown on the accompanying plan and be composed of a mixture of one part of cement, two parts of good clean sharp sand and five parts of gravel, making a 1 : 2 : 5 mixture.

The lumber used in the xxxx dam, such as run plank flash boards and stanchions, is to be of good fir material (No. 1 common) of the sizes and dimensions shown on the plans.

CONCRETE.

169 lin. ft. 17 stanchions floor @ 20 cu. ft. per ft.	4584.34	cu. ft
124 lin. ft. Wing Walls	1508.9	" "
TOTAL CUBIC FEET	6093.24	
	or 225.7	cu. yds
225.7 cu. yds @ $20.00 per yd.	$ 4,514.00	

LUMBER.

4363 ft. B. M. @ $55.00 per M.	190.47
Hardware, nails and re-enforcing	105.01
TOTAL	$ 4,809.48

HEAD GATE FOR HEAD OF HIGH LINE CANAL.

The following is an estimate ofcost of construction of concrete headgate for High Line Canal, the same to contain four 4-foot steel gates with steel frames and lifting devices as shown on plans.

The body of the gate is to be 19 feet wide in the clear, and 18 feet long with slab floor for driveway or bridge if desired.

The estimate of the cost of construction is as follows:

1- Bottom floor 7' X 19' X 18'	199.5	cu. ft.
1-Top floor 6" X 19' X 18'	171.0	" "
1-Front cut-off wall 1' X 2.5' X 21'	52.5	" "
1-Lower cut-off wall 1' X 2.5' X 21'	52.5	" "
4-Wing walls	380.0	" "
3-Partition walls 1' X 4' X 18'	216.0	" "
2-Head walls 1' X 4' X 21'	168.0	" "
TOTAL	1419.5	" "
	or 52.5	" yds.
52.5 cu. yds. @ $20.00	$1,150.00	
4 Gates @ $140.00	560.00	
TOTAL	$1,710.00	

NORTH CALDWELL DRAINAGE.

The following is an estimate of the cost of drainage on the north side of Caldwell between the railroad and the foot of Canyon Hill, and extending from the east side of the Hartlett farm west to the Boise River, as pipe lines are shown on the map.

2550' of 24" Concrete Pipe @ $2.35 per foot $5,342.50

PID067533

PID001073

2400' of 18" concrete pipe @ $1.60 per foot	$ 3,840.00
6750' of 16" concrete pipe @ $1.30 per foot	8,775.00
4450' of 12" concrete pipe @ $1.00 per foot	4,450.00
49 Man holes @ $80.00	3,920.00
Excavation, 17,150 lin. ft. of trench @ 70¢ per lin. ft.	12,005.00
Sub. Total	41,332.50
10% Truckage and breakage compensation ins.	4,135.30
Actual cost	45,465.80
Contractors profits, tools rental, etc	9,093.15
15% Legal expense, engineering and incidentals	6,819.86
TOTAL COST OF CONSTRUCTION	61,378.76

This should cover the construction of the proposed drainage as set out on the map at the present prices of material and labor, and is estimated on an average cut of from 7 to 9 feet.

The Pioneer Irrigation District considers its part of the cost of the North Caldwell Drainage to be 35% of the total cost, or $21,482.57

DRAG LINE DREDGE.

The cost of a drag line dredge with gas power and of the general type of the one shown on the attached blue print and at present prices is estimated F. O. B. Caldwell, Idaho at $13,000.00

ESTIMATE FOR LATERAL GATES.

The following is a list and estimate of lateral gates to be included in the proposed bond issue:

35 Gates 12" dia. @ $29.93	$1047.55	weight	6650 lbs.
15 gates 15" dia. @ $31.77	476.50	"	3030 "
12 Gates 10" dia. @ $20.04	240.48	"	1800 "
15 Gates 8" dia. @ $18.00	270.00	"	1950 "
			13430 "
13,430 lbs. @ $2.19 per cwt	294.11		
35 pcs. of 12" corrugated pipe, 16 gage, 18' long, 630 lin. ft. @ $1.55	976.50	weight	6930 lbs.
15 pcs. of 15" corrugated pipe, 16 gage, 18' long, 270 lin. ft. @ $1.88	507.60	"	3645 "
12 pcs. of 10" corrugated pipe, 16 gage 18' long, 216 lin. ft. @ $1.36	293.76	"	2160 "
15 pcs. of 8" corrugated pipe, 16 gage 18' long, 270 lin. ft. @ $1.21	326.70	"	2160 "
			14895 "
14,895 lbs. @ 1.11½	166.07		
TOTAL	$4599.27		

ESTIMATES FOR IMPROVEMENTS TO BE MADE IN THE PIONEER IRRIGATION DISTRICT BY BOND ISSUE.

The following is a summation of all the items to be included in the proposed bond issue:

Item #1.	Ditch Lining	$159,305.00
Item #2.	Bank Lining	6,148.00
Item #3.	Diversion dam in south channel at head of High Line	3,925.00
Item #4.	Diversion Dam in Main ~~XXXXXX~~ River at Head of High Line	4,809.48
Item #5.	Head Gate in Head of High Line	1,710.00
Item #6.	North Caldwell Drainage	21,482.56
Item #7.	Drag Line Dredge	13,000.00

PID067534

PID001074

Item #8. Lateral Headgates - $ 4,599.27

TOTAL - $214,979.31

BE IT THEREFORE RESOLVED That the Board of Directors of the Pioneer Irrigation District deems it for the best interests of said District that that portion of the side hill of the Phyllis Canal above set forth be lined with ~~xxxxxx~~ cement, and that other portions of the Phyllis Canal, as hereinbefore set forth, be lined with cement lining, and that the dams and headgates be constructed as hereinbefore provided, and that the dredge be purchased and the District stand 35% of the cost of said drainage, which taken together makes a total of $214,979.31, and that the question of issuing bonds in the amount of $214,979.31 be submitted to the qualified electors of the Pioneer Irrigation District, and that the proceeds derived from the sale of said bonds be used as in this resolution hereinbefore set forth.

IT IS FURTHER RESOLVED That it is for the best interest of the District that the plan be approved by the Reclamation Service of the State of Idaho, and J. M. Thompson is hereby directed to file a copy of this resolution, together with other matters, with the Department of Reclamation of the State of Idaho, and that the same be filed at once.

On motion the Board adjourned to meet Tuesday, November 9, 1920, for the purpose of calling the election.

In response to the order in the above resolution J M Thompson, Attorney for the District, filed a copy of said resolution together with other papers pertaining thereto with the Commissioner of Reclamation of the State of Idaho, as evidenced by letter of the Commissioner as follows:

Boise, Idaho. November 9, 1920.

Board of Directors,
Pioneer Irrigation District,
Caldwell, Idaho.

Gentlemen,--

The report of your engineer, Fred H McConnell, and the resolution of the Board of Directors of your District, of November 8, 1920, with reference to the lining of parts of the Phyllis Canal, construction of dams in Boise River at the head of the Caldwell High Line canal, the purchasing of a drag line dredge, the construction of the drainage ditch, headgate and lateral gates, has been received at this office. I believe that this work would be a great benefit to the District and also the purchase of the drag line dredge would (be) of great benefit to the District, and I, therefore, approve the same.

Very truly yours,
(Signed) W. G. Swendsen
Commissioner of Reclamation.

the original of said letter being filed with the report and estimate of Fred H McConnell engineer.

Caldwell, Idaho. November 9, 1920.

The Board met pursuant to adjournment. Present: W A Shupe, J O Baum and L A Whittle, Directors, and Fred L Evans, Secretary.

The following resolution was adopted:

WHEREAS, on the 9th day of November, 1920, the Department of ~~xxxxxxxxxxx~~ reclamation of the State of Idaho submitted to this Board its report on the plans, estimates, maps, etc., prepared for the cementing of a portion of the Phillis Canal, constructing dams in Boise river, purchasing a dredge, and constructing a drainage ditch, headgate for the High Line canal and lateral headgates, on the resolution passed by the Board of Directors on the 8th day of November, 1920,

IT IS HEREBY ORDERED That said report be filed and the plans, estimates, maps, etc., for the cementing of the side hill portion of the Phyllis canal, and for cement

lining of other portions of said canal, constructing dams in Boise river at the intake of the High Line canal, purchasing a dredge, the construction of a drainage ditch and the Caldwell Highline headgate and lateral headgates, adopted by the Board of Directors, having been approved by the department of Reclamation of the State of Idaho.

And it appearing that it is necessary to do said work, as provided by said resolution of November 8, 1920, and that the side hill portions of the Phyllis canal should be cemented, and that other portions of the Phyllis canal be lined, and that dams be constructed in Boise river, and a drainage ditch, Caldwell Highline headgates and lateral headgates be constructed, and that a dredge be purchased, as in said resolution provided;

IT IS THEREFORE ORDERED that the amount of money determined necessary to be expended in the cementing of said Phyllis canal at the side hill is $159,305.00, and that the cementing of other portions of the Phyllis canal is $6,145.00; that the construction of dams in Boise river is $8,734.48; that the purchasing of said dredge is $13,000.00; that the Caldwell-Highline headgate and lateral headgates is $6,309.27, and that the proportionate share which the Pioneer Irrigation District agrees to pay for the construction of said drainage ditch is 35% of the amount expended in the construction of said drainage; that in case it costs $61,378.76 to construct said drain, it will cost the District $21,482.56, which amount it will be necessary to raise in case said drain is constructed, but under no consideration shall the District pay over 35% of the amount expended, and the Board of Directors deems it for the best interest of the District that bonds in the amount of $214,979.31 be issued, and that the question of the issuing of said bonds in said amount, to-wit, $214,979.31, be submitted to the qualified electors of the Pioneer Irrigation District.

IT IS FURTHER ORDERED That a special election be called for the 14th day of December, 1920, at which election there shall be submitted to the qualified electors of the Pioneer Irrigation District the question of whether or not bonds of the District in the amount of $214,979.31 be authorized to be issued.

IT IS FURTHER ORDERED That for such election the boundaries of the precincts of the District and the places of holding the election therein be named, described and designated in the notice of special election, which notice is made a part of this order and is as follows, to-wit:

NOTICE OF ELECTION.

NOTICE IS HEREBY GIVEN, That a special election will be held in the Pioneer Irrigation District on the 14th day of December, 1920, at which election there shall be submitted to the qualified electors of said District the question of whether or not the Board of Directors of said District shall be authorized to issue bonds of the Pioneer Irrigation District to the amount of $214,979.31, the proceeds of the sale of which are to be used for the purpose of lining with cement the banks of the Phyllis canal at the side hill, and other portions of said canal, constructing dams in Boise river for the diversion of water at the head of the Caldwell Highline canal, constructing a concrete headgate at the head of the Caldwell Highline canal, constructing a drain on the north side of Caldwell, constructing certain lateral headgates, and purchasing a dragline dredge, all of which more fully appears from the report of Fred H McConnell, an irrigation engineer, filed with the Board of Directors on November 8, 1920, and also resolution of the Board of Directors passed and adopted on November 8, 1920, which said report and resolution are hereby referred to. Maps, plans and estimates and the report of the Department of Reclamation are on file and open to public inspection by the people of the District at the office of the Board of Directors thereof, at Caldwell, Idaho, and also at the office of the Department of Reclamation at the State Capitol, Boise, Idaho.

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That said election will be held at the following named places, to-wit:

Precinct No 1, at Nampa Home Mission, Nampa, Idaho.
Precinct No 2, at the Court House in Caldwell.
Precinct No 3, At the District's office in Caldwell.

The boundaries of said precincts are as follows:

Precinct No. 1 shall consist of all that portion of said District lying east of a line commencing at the south boundary of the District on the boundary line between Sections 19 and 20 in Twp. 3 N., R. 3 W. B. M.; thence running due north to the north boundary line of said District.

Precinct No. 2 shall consist of that portion of said District lying west of Precinct No. 1, and east of a line beginning at the south boundary line of said District on the west line of Section 3, Twp. 3 N., R. 3 W. B. M.; thence running north to the northwest corner of said section; thwnce east to the northeast corner of said section; thence north to the north line of the O. S. L. R. R. right-of-way; thence northwesterly along said right-of-way to the boundary line of said District.

Precinct No. 3 shall consist of all that portion of said District lying west of Precinct No. 2.

The polls shall be open at 8:00 A. M. and remain open until 7:00 P. M. of said day, at which election the ballots shall contain the words "Bonds - yes," and "Bonds - No", or words equivalent thereto.

REGISTRATION.

No registration will be required to vote at this election, but in lieu thereof the judges of election shall require every elector to subscribe to an elector's oath as a prerequisite to casting his or her vote, and such oaths shall contain the usual elector's oath with the following words added: " and I am a resident within the boundaries of the Pioneer Irrigation District and am a holder of land within said District."

Witness my hand and seal this 8th day of November, 1920.

Secretary, Pioneer Irrigation District,
Canyon & Ada Counties, Idaho.

It is further ordered that the polls shall be open at 8:00 A. M. and remain open until 7:00 P. M. of said day; that the Secretary is hereby directed to publish a copy of the above notice in a newspaper in Canyon County and one in a newspaper in Ada County, Idaho, and that the same be published in the Caldwell Tribune in Canyon County, and the Meridian Times in Ada County, at least four weeks before said election, and that three copies thereof be posted in each election precinct in the District.

The following resolution was unanimously adopted:

WHEREAS, C Q Adams has applied to the Board of Directors for a quitclaim deed covering the interests of the District in the property described as Block 43, Dormans Lake View Subdivision of the NE¼ of the SE¼ of Section 28; Twp 4 N., Range 3 W. B. M., as shown by Tax Sale Certificate No 297 of the year 1917, and has paid to the District the sum of $5.37 due the District by reason of said tax sale; it is hereby

ORDERED, That the President and Secretary of the Board are hereby authorized and directed to execute and deliver to the said C Q ADAMS a QUITCLAIM DEED conveying the interest of the District in said property as shown by said tax sale certificate.

The following resolution was unanimously adopted:

WHEREAS, Wilson Leiser has applied to the Board of Directors for a quit claim deed covering the interests of the District in the property described as Lots 1 & 2 in Block No 98 of the Original Townsite of Caldwell, Idaho as shown by Tax Sale Certificates No 155, dated September 1, 1914, and No 177, dated September 8, 1915, and has paid to the District

PID067537

PID001077

the sum of $9.40 due the District by reason of said tax sales;

IT IS HEREBY ORDERED, That the President and Secretary of the Board are hereby authorized and directed to execute and deliver to the said WILSON LEISER A QUIT CLAIM DEED conveying the interest of the District in said property as shown by said tax sale certificates.

The following resolution was unanimously adopted:

WHEREAS, Mary J Murphy has applied to the Board of Directors for a quit claim deed covering the interests of the District in the property described as Lot 4 in Block 12, Washington Heights Addition to the City of Caldwell, Idaho, and has paid to the District the sum of $6.17 due the District by reason of said tax sale as shown by Tax Sale Certificate no 281 dated September 5, 1917;

IT IS HEREBY ORDERED, That the President and Secretary of the Board are hereby authorized and directed to execute and deliver to the said MARY J MURPHY A QUIT CLAIM DEED conveying the interests of the District in said property as shown by said tax sale certificate

No other business appearing the Board adjourned sine die.

W. R. Clarke
President.

ATTEST:
Fred L. Evans
Secretary.

PID067538

PID001078

The Board met in regular session, pursuant to adjournment at 11 A.M. on the 13th day of February, A.D.1929 with J.O.Baum, President presiding, also Fred Kress and T.M.DeCoursey, Directors, and S.Earle Boyes, Secretary, present.

W.E.Muller, Project Manager, together with several members of the Board of Control, including Thatcher, Coalion, and Brandt, and asked for cooperation in the eradication of obnoxious weeds on the ditch banks. No action was taken in this matter, further than that the Board assured them of its desire to assist.

Allen E. Cossack of Nampa, Idaho, appeared before the Board, requesting the renting of the Well Drilling Machine, but no action was taken, owing to the fact that the Board was not sure of its position, relative to the machine.

It was voted on motion of Kress, seconded by DeCourcye, that Albert Lee be given a Quit Claim Deed to Block Ten (10), Mountain View Subdivision No. 2 for the sum of $50.00.

It was voted on motion of Decousey, seconded by Kress, that 3 acre feet per acre per year be the basis, upon which to settel with Frank Haine, regarding is refund on the NENWNW Section Twenty Seven, Twownship Four (4) North, Range Four (4) East of the Boise Meridian.

It was then voted on motion of Kress, seconded by DeCoursey, that the Board adjourn to February 19th, A.D., 1929 at 11 A.M.

J.O.Baum PRESIDENT

ATTEST:
Earle Boyes
S.EARLE BOYES, SECRETARY

Caldwell, Idaho.
February 19th, 1929.

The Board met in regular session, pursuant to adjournemnt on the19th day of February, A.D.1929 with Kress and Decoursey, Ditectors, and S.Earle Boyes, present, and J.O.Baum, President, absent.

A.B.Cooper appeared before the Board, requestinga reduction in the amount of taxes the District as against the Nw 2.99 100 feet of Lot Three (3) Block Twelve (12) Washington Heights Addition to the City of Caldwell, Canyon County, Idaho. No Action was taken in this matter.

Fred Glenn appeared before the Board relative to the Tax Deed the District has on the NE¼SE¼ of Section Twenty-eight (28) Township Four (4) North, Range Two (2) West of the Boise Meridian. After discussion of the same, it was voted on motion of Decoursey, seconded by Kress, to lease the same to Fred Glenn for the season of 1929, and have W.C.Micknell prepare the lease.

It was voted on motion of Kress, seconded by Decoursey, that $7.00 per year be the amount to be refunded to Frank Haine for the land described as NE¼NW¼NW¼ Section Twenty-seven (27) Township Four (4) North, Range Four (4) West of the Boise Meridian.

Frank Sales again appeared before the Board relative to the refund sought on Lot 1 Block 3 Callaway Addition to the City of Caldwell, Canyon County, Idaho, and he was informed that no action would be taken on this matter until the matter of ownership was setteled by the Court.

Ira White, Robert White, Walter Thomas, and J.T.Sales appeared before the board relative to matters concerning waters for the Pioneer Irrigation District and the Franklin Ditch Company. No action as taken after consideravle discussion.

Z.N.McCall appeared before the Board, relative to the Tax Deed on the NW 1/3 of SW¼ of Lot 4 Block 7 Washington Heights Addition to the City of Caldwell, Idaho, and it was voted on motion of Kress, seconded by Decoursey that the following Reesolution be adopted, towwit:

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Whereas, it appears to the Board that the assessments levied against the NW ¼/3 of of the SW½ of Lot Four (4) Block Seven (7) of Washington Heights Addition to the City of Caldwell from the year 1920 to the year 1928, both years inclusive, have been in the name of Thos. Welsh, instead of T.W.McCall, the legal owner of the same, and,

Whereas, it is to the best interests of the Pioneer Irrigation District, that the Treasurer of the said Pioneer Irrigation District should accept the face amount of the levies for the years 1920 to 1928, both years inclusive, cancelling both penalty and interest for the aforesaid years,

Now, Therefore be it resolved that the Treasurer of the Pioneer Irrigation District is hereby authroized and directed, and this does authorize and direct the Treasurer to accept the face amount of the taxes levied against the NW ¼/3 of the SW ½ of Lot Four (4), Block seven (7), Washington Heights Addition to the City of Caldwell, Canyon County, Idaho for the years 1920 to 1928, both years inclusive.

It was then voted on motion of Kress, seconded by Decoursey, that the Board adjourn.

J.O. Baum

ATTEST:

S. EARLE BOYES, SECRETARY.

Caldwell, Idaho.
March 5th, 1929

The Board met in regular session with President J.O. Baum, Directors T.M. Decoursey and Fred Kress present, also S. Earle Boyes, Secretary, and J.W. Way, Superintendent.

Claims amounting to the sum of $7936.03 were read and approved, and it was then voted on motion of Decoursey, seconded by Kress, that the same beallowed, as approved, and warrants ordered drawn to cover the same.

It was voted on motion of Kress, seconded by Decoursey that the following Resolution be adopted, to-wit:

Whereas, it is to the best interests of the Pioneer Irrigation District, that the aforesaid District accept the amount of Three Hundred and No/100 Dollars ($300.00) for all the District's interest, claim, and equity in Block One Hundred thirty-five (135) Strahorn Addition to the City of Caldwell, Canyon County, State of Idaho,

Now, Therefore it is hereby ordered that the Treasurer of the Pioneer Irrigation District be authorized and directed to accept the sum the sum of Three Hundred and No/100 Dollars ($300.00), and this does authorize and direct the Treasurer of said Pioneer Irrigation District to accept the sum of Three Hundred and No/100 Dollars ($300.00) for the interest, claim, and equity of the said Pioneer Irrigation District in and to that certain piece or parcel of land, particularly described as follows, to-wit:

All of Block One Hubdred Thirty-five(135) Strahorns Addition to the City of Caldwell, County of Canyon , State of Idaho.

It was voted on motion of Kress, seconded by Decoursey, that the Board adjourn to Monday evening, March 11th, at 8 P.M., at which time it will attend the meeting of the Mayor and City Council of the City of Caldwell, Canyon County, State of Idaho.

J.O. Baum

ATTEST:

J.O. BAUM, PRESIDENT.

Secretary

PID067723

PID001080

OFFICE OF

PIONEER IRRIGATION DISTRICT

CANYON AND ADA COUNTIES, IDAHO

CALDWELL, IDAHO, July 3, 1928.

Mr. William Welch,
Watermaster, Boise River,
Boise, Idaho.

WATER DISTRICT 12A

File No. 1611

Dear Sir,-

As you are aware the water decreed to this District and drawn at the Phyllis Canal is insufficient to provide a sufficient head for proper irrigation of the lands under that canal.

As you are also aware this District is under contract to carry thru its Caldwell Canal the water decreed to the Franklin Ditch Co under decrees Nos 34 and 77, and to the Mason Creek Ditch Co under decree No 46, amounting to 4010 inches.

Owing to the fact that a large amount of water is frequently supplied to these ditches by this District which is developed by drain ditches within the District there are times when all of the water is not needed by these ditch companies.

In view of these facts I am asked by our Board of Directors to request that if it is possible for you to do so you make temporary transfer to the Phyllis Canal of such surplus water of these rights mentioned when it is not needed by these companies.

Very truly yours,

Fred L. Evans

Secretary.

FIVE MILE--MASON CREEK--HIGHLINE

May 9, 1938

Years ago when Pioneer Irrigation District took over the Mason Creek Ditch Company and Franklin Ditch Company it enlarged the ditch those companies had been using and called it the Caldwell Highline. In return for rights-of-way of Franklin Ditch Company and Mason Creek Ditch Company, P.I.D. agreed to carry their decreed water from the river through the Highline ditch which P.I.D. had enlarged and make no assessments against the lands of those two ditch companies. Turner thinks there is a contract covering this. The Highline probably had no water until P.I.D. made this trade with the Franklin and Mason Creek Companies.

The Highline picks up Five Mile Drain water at a point about one mile South and East of the Franklin school, and picks up the Mason Creek Drain water at a point approximately two miles West of where the Five Mile water is picked up. P.I.D.'s contract with Canyon Hill Irrigation District covers this Mason Creek pickup.

Pioneer dries Five Mile Drain, dumps water into the Highline, and when there isn't sufficient water below for the Franklin and Mason Creek rights P.I.D. diverts over its canal sufficient water to supply the shortage.

These Franklin and Mason Creek rights comprise about 750 to 800 acres.

Mason Creek Ditch Company picks up the water diverted over the Highline at a point about 1½ miles below the point where Highline crosses Five Mile Drain.

The Mason Creek Company and Mrs. J. P. Wells use the same diversion structure.

As to Highline water, P.I.D. has nothing decreed in its name. Its Highline water is decreed as follows:

To Franklin Ditch Company (Rights Nos. 34 and 77).

To Mason Creek Ditch Company (Right No. 46).

Prepared by: Bob Sutter
Idaho Department
of Water Resources

IRRIGATION RETURN FLOWS OF THE BOISE VALLEY

Return flows from irrigation diversions are a significant factor in the operation and character of the Boise River. During the irrigation season, groundwater levels rise and the flows in surface drains begin to increase. This flow along with direct surface return and canal spills is then either rediverted by other canals or directly discharged into the Boise River. The Boise River itself acts as a drain in intercepting groundwater and surface return flows. The combined surface and intermediate ground return flow is a significant amount throughout the entire year.

SURFACE DRAINS

About eleven principal drain systems discharge to Boise River between Lucky Peak Reservoir and the mouth of Boise River. In downstream order these systems are: Drainage District #3, Thurman Drain, Eagle Drain, Five Mile Creek, North and South Middleton Drain, Willow Creek, Mason Creek and Drain, Hartley Drain and Gulch, Indian Creek, Conway Gulch, and Dixie Slough. Most of these follow the natural drainage to the river and in the past were tributaries that contained flow only sporadically following rainstorms or rapid snowmelt.

The Boise Valley below Boise is crossed by many surface drains which do not discharge directly to Boise River. These drains are either tributary to other drains or are intercepted by canals which pick up flow for rediversion. In the lower end of the Boise Valley, some drains discharge directly to the Snake River. One of the largest of these is Sand Run Gulch which discharges as much as 75 cfs during the non-irrigation season.

Following is a short description of some of the major surface drain systems in Boise Valley. In many cases these systems are made up of a complex network of tributary drains which is constantly changing because of new construction or relocation.

Drainage District #3: Return flows from three small drains are included in this system. These are the Booth, Myers, and Ridenbaugh drains. They enter the Boise River from the south within the city of Boise, and collect return flows from land irrigated in the immediate vicinity of Boise. The combined discharge of these drains varries from 15 cfs in the summer to almost no flow in the winter.

Thurman Drain: This drain is located below the Settlers Canal on the south side of the river and discharges into the South Channel of Boise River near Eagle Island. It collects return flows from the Settlers Canal and includes return flows from the end of the Thurman Mill Canal. Discharge ranges from 25 cfs in the summer to less than 15 cfs in the winter.

PID001083

Eagle Drain: Eagle Drain enters Boise River on the North Channel of Eagle Island at the town of Eagle. It drains the area below the Farmers Union and Dry Creek Canals from Boise to Eagle. Discharge ranges from 60 cfs in the summer to 15 cfs in the winter.

Five Mile Creek: Sometimes called Fifteenmile Creek, Five Mile Creek enters Boise River from the south near Middleton and acts as a drain for the area below the Boise Project Main Canal and between the City of Boise and Mason Creek Drain. It receives return flows and spills from the Main, Ridenbaught, and Phyllis Canals. Five Mile Creek is a major source of irrigation water for the Caldwell Highline Canal, the last of a series of major canals which cross this drain. Just prior to entering the river, a diversion of about 17 cfs is made by a small canal. Discharge to the river varies from 140 cfs in the summer to less than 40 cfs in the winter. However, because of the great reuse of water from the drain, flows are quite variable.

Mason Creek: Mason Creek drains land served by the same canals as Five Mile Creek and also provides irrigation water to the Caldwell Highline Canal. Between the Boise Project Main Canal and the Ridenbaugh Canal, Mason Creek acts as a lateral from the former canal and empties into the latter. It begins to function as a drain below the Ridenbaugh Canal. Near the river, Mason Creek branches into two channels which reach the river at approximately the same location near Caldwell. These channels are called Mason Creek and Mason Drain. The combined discharge of the two channels varies from 200 cfs in the summer to 60 cfs in the winter.

Indian Creek: Indian Creek and two tributary drains, the Wilson and Elijah, drain the area below the Ridenbaugh Canal between Mason Creek and Lake Lowell. Similar to Mason Creek, Indian Creek begins to act as a drain below the Ridenbaugh Canal. Above that point Indian Creek functions as a portion of the Boise Project Main Canal and all return flows or surface runoff is diverted to Lake Lowell via the Main Canal.

There are many artesian wells and springs which discharge to Indian Creek in the vicinity of Nampa. Indian Creek discharges to Boise River below Caldwell, but during the irrigation season much of the flow is diverted before it reaches Boise River. The largest diversions from the system are the Notus Canal which diverts flow from the Wilson and Elijah Drains to the north side of Boise River, and the Riverside Canal which diverts flow from Indian Creek below Caldwell. Discharge to Boise River is highly variable, ranging from 250 cfs at the end of the irrigation season to less than 100 cfs when canals are diverting water from the creek.

North and South Middleton: The two forks of the Middleton Drain drain the area below the Middleton Canal between Eagle and Middleton. The drain discharges to Boise River at Middleton. Discharge varies from 200 cfs in the summer to 50 cfs in the winter.

Willow Creek: Willow Creek also discharges to Boise River at Middleton. It collects return flows from the area irrigated by the lower end of the Middleton Canal and by the last few miles of the "C" Line East

Canal of the Payette Division of the Boise Project, which diverts water from the Payette River to Boise Valley. Discharge in Willow Creek varies from 50 cfs in the spring to almost no flow in the winter.

Hartley Drain and Gulch: The two forks of this drain enter the Boise River above Caldwell. It drains the area receiving water from the lower end of the Middleton and Canyon County canals. It also drains a large portion of the Black Canyon Irrigation District that obtains water from the "C" Line East Canal between Willow Creek and Conway Gulch. Discharge ranges from 100 cfs in the summer to less than 25 cfs in the winter.

Conway Gulch: Conway Gulch drains the area irrigated by the "C" Line East, "C" Line West, and Notus Canals between Hartley Gulch and Sand Run Gulch. These canals irrigate land in the Payette Division of the Boise Project, Conway Gulch discharges to Boise River at Notus. Discharge varies from 60 cfs in the summer to 200 cfs in the winter.

Sand Run Gulch: The last major drain north of Boise River before it reaches Snake River is Sand Run Gulch which parallels Boise River for more than ten miles before the drain discharges to Snake River. Return flows from the area irrigated by the Boise Project "D" Line Canal and the Sebree Canal contribute flow to this drain. A November flow of 75 cfs has been observed near the end of the drain.

Dixie Slough: The Dixie Slough is the last major drain on the south side of Boise River which discharges directly to the river. The drain collects return flows from the irrigated area below the Riverside Canal from Caldwell to a point about five miles below Notus. Flows range from 275 cfs in the summer to less than 100 cfs in the winter. The discharge of this drain is highly variable during the irrigation season because of variations in reuse of the drain water.

Ross East End Drain: Return flows from land irrigated south of the river by the lower end of the Riverside Canal are collected by the Ross East End Drain. This drain eventually discharges to Snake River. A November discharge of 12 cfs has been observed near the end of the drain.

After irrigation diversions begin in April, the flow in surface drains increases until a somewhat steady rate is reached, and this flow is maintained throughout the irrigation season. When diversions for irrigation are completed in October, the drain system return flows gradually decrease throughout the winter as groundwater levels decline. In late March the drains are found to have the lowest discharge of the year. Local storms often cause the drains to discharge at unusually high rates for short periods of time.

All of the principal drains enter the Boise River below the streamgage at Boise; only two of the drains enter below Notus. The largest drains are concentrated in the reach of the river between the cities of Middleton and Caldwell. When the natural flow of the river becomes too small to satisfy all diversions and many canals begin to use storage water, canals below Middleton usually obtain all of their water from surface and seepage return flows to the river. Only in very dry years when drains are discharging

PID001085

less than normal do these canals need additional water from storage. Even during years of extremely low runoff, canals on the lower end of the river below Notus do not require storage water.

Discharge Measurements

Measurements of discharges of all the major drains which discharge to Boise River are reported by the Boise River Watermaster for the irrigation season only, April 15 to October 15. Daily values are estimated by interpolating between weekly measurements. The length of historic record varies with each drain, and locations of measurements have changed throughout the period. The Boise River Watermaster has measured all drains three times during the non-irrigation season, in November 1971, February 1972, and March 1973.

Distribution and Composition of Total Gain

Very little return flow enters the Boise River above Boise. In this reach there are no major surface drains. The total gain to the river from Lucky Peak to Boise is negative throughout most of the year. From Boise to Notus, the total gain to the river can be calculated by adding the recorded diversions to the gage difference. The total gain includes all surface return flows and groundwater gains or losses. Because natural runoff is very small in this reach, the total gain is a good representation of total return flow to the river. The table on the following page lists the Boise - Notus total gain by month in thousands of acre-feet for the years 1959-72.

The total gain to Boise River follows the same pattern as individual surface drains. The lowest gain is in March just prior to the irrigation season. The total gain from the Boise River at Boise to the Boise River at Notus gaging stations is approximately 500 cfs. By May the gain usually increases to 1000 to 1500 cfs. The gain remains at this level through September and gradually decreases throughout the non-irrigation season.

In a given year, the magnitude of the total return to the river varies with the available water supply. In the low runoff year of 1961, the Boise to Notus return averaged under 1000 cfs during the irrigation season; in the same period of the high runoff year of 1965, this gain averaged over 1500 cfs. This relationship can be explained by the fact that less efficient use is made of the available water when the supply is abundant. When the supply is low, gross diversions are less and more of the surface return is reused. The drain discharges become highly variable during periods of greater water reuse.

An estimate of the distribution of the gain by reach from Boise to Notus was found by calculating the net gain above Eagle Island, near Star below the Caldwell Highline Canal, and at Caldwell Bridge, based on miscellaneous measuremnets at these locations. It was found that the ratio of the gain in these reaches to the total gain does not vary greatly throughout the year. The following ratios were calculated for the four reaches: Boise to above Eagle Island - 0.06; above Eagle Island to near Star - 0.13; near Star to Caldwell Bridge - 0.39; Caldwell Bridge to Notus - 0.42.

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TOTAL GAIN TO BOISE RIVER BETWEEN BOISE AND NOTUS (1000 AC-FT)

W-YR	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	TOTAL
59	65.2	42.3	37.3	32.0	27.1	25.6	41.2	94.6	72.0	73.4	94.5	82.6	687.8
60	61.1	38.2	34.1	34.3	36.0	33.9	31.4	109.0	84.3	82.1	90.8	81.3	716.5
61	63.0	43.2	38.3	32.6	28.5	28.1	26.1	66.9	63.3	56.7	52.8	63.1	562.6
62	49.7	36.6	33.3	30.4	32.8	29.8	31.1	79.8	55.5	72.5	75.3	79.8	606.6
63	70.6	41.2	36.8	31.3	40.9	28.8	29.8	58.4	88.0	70.0	75.1	89.4	654.3
64	69.4	45.8	39.9	42.5	38.3	42.0	40.5	64.6	88.9	75.9	88.3	86.5	718.6
65	62.3	42.1	46.4	42.1	30.6	36.0	69.7	92.4	101.6	91.1	96.2	82.4	792.9
66	68.7	44.0	37.5	32.8	26.7	24.7	64.5	89.9	87.9	69.8	68.9	68.7	678.1
67	56.1	41.1	38.6	34.5	29.9	25.8	40.6	69.5	78.6	76.9	76.0	81.5	643.1
68	66.3	40.9	37.2	34.8	30.5	26.3	22.1	65.1	67.3	66.9	81.3	61.1	599.8
69	61.5	42.3	39.3	49.5	33.0	42.3	52.1	89.3	89.4	74.2	76.1	75.0	724.0
70	66.7	43.4	40.4	52.7	36.9	37.4	51.3	93.4	89.8	93.0	85.3	97.1	787.4
71	65.7	46.2	42.7	56.9	41.3	56.8	71.5	129.6	124.9	95.6	84.1	87.0	696.3
72	70.8	45.6	44.2	48.6	77.2	71.8	69.7	91.6	93.1	85.1	96.6	94.7	883.0
AVG.	63.6	42.3	39.0	39.6	36.4	36.4	45.4	84.0	84.6	77.4	81.5	80.4	710.8

PID001088

It is significant to note that over 80 percent of the return is below Star.

Of the total gain from Boise to Notus, the major source is from surface drains. Based on 1959-72 measurements taken by the Boise River Watermaster, 60 to 65 percent of the gain is contributed by the eleven major surface drains during their peak discharge, from April through October. From miscellaneous measurements taken in the non-irrigation season on days that did not follow excessive precipitation, it was found that these same drains accounted for about 75 percent of the total Boise to Notus gain. This increase is logical since diversions from surface drains are generally not made after October 15. The remainder of the gain, or the unidentified gain, originates from very small surface drains which flow during the irrigation season and from groundwater seepage directly to the river channel.

The total gain from Notus to Parma varies in much the same manner as the upper portion of the river. Limited data indicates that the total gain approches 500 cfs during the irrigation season and decreases to zero by the end of March. Two major surface drains, Dixie Drain and Conway Gulch, discharge into the river in this reach. These two drains comprise about 65% of the total gain from May through September when the gain is at its peak. No data exists on return to the river below Parma; however, there are no major surface drains that discharge into the river below that location.

Diversion - Return Flow Relationships

Because of extensive reuse of water for irrigation, it is very difficult to estimate the effect of any single diversion on the return flow to Boise River. The absence of any continuous record of flow in the river between Boise and Notus prohibits analysis of diversion-return flow relationships even by general areas. An estimate of the return from Boise to Parma can be made by comparing the total annual gain to the river to gross diversions. Diversion from the Boise River from Diversion Dam to Parma average about 1,850,000 acre-feet. By adding to this the average diversion into the Boise Valley from the Payette River, 250,000 acre-feet, the total annual surface diversion is about 2,100,000 acre-feet. The average annual (1959-72) gain from Boise to Parma is approximately 870,000 acre-feet. Therefore, the average return to the Boise above Parma appears to be in the range of 40 percent of the total surface water diversion. This does not include the entire return, some of which flows directly or indirectly to Snake River.

PID001089

Methodology:
1) The first question to answer is the location of the original diversion point of the Caldwell canal and did it move upon construction of the Highline?
Reviewed the chronology database and found references to a headgate at Star wagon bridge. Also found that the headgate was moved in the early 1890s.

2) In order to understand the evolution of the Caldwell/Highline canals, AB searched the Idaho Statesmen Historical Archive with the following keywords: "Franklin Ditch;" "Caldwell High Line;" "high line" and "construction;" "high line" and "caldwell;" and "Mason Creek." Printed and reviewed the articles and then entered them into the CHRON database.

3) Searched the existing ARCH, ABS, and JOBS database as well as the PIO archive at SHRA and marked those with references to Franklin Ditch Company, Mason Creek, High line, and Caldwell Canal. Entered into the CHRON database. For example, references to the Caldwell canal in the Biennial Report of the State Engineer are now in the CHRON database.

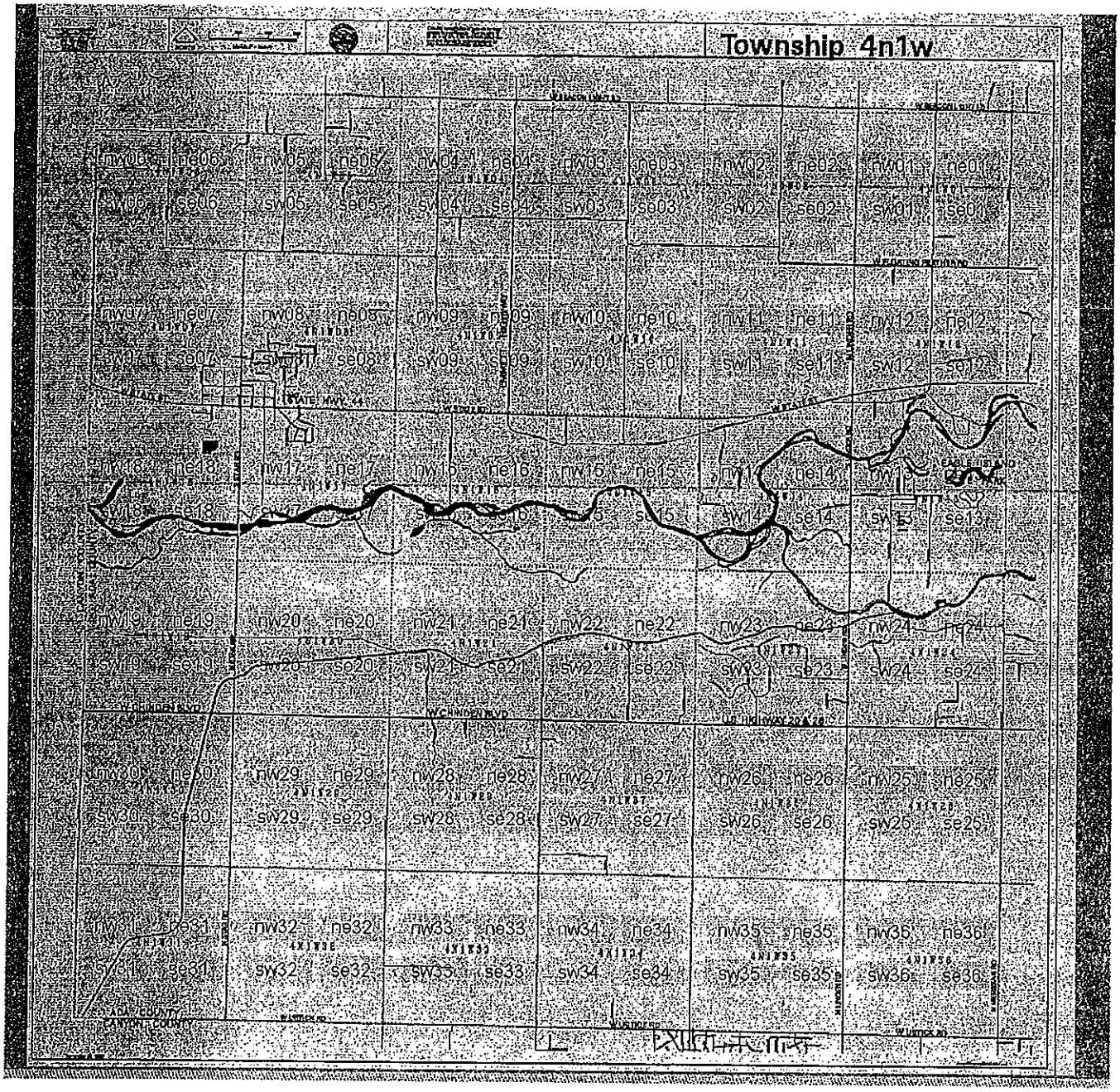
4) Using the existing CHRON database as a guide, I reviewed the articles with references to the construction and expansion of the Caldwell canal, highline and Strahorn canal/slough. I expanded on the information already given and gave particular details on the line of each canal.

5) Added references to the highline, Caldwell, Franklin and Mason Creek ditches from the PID minutes to the chronology database.

Preliminary findings:
1) As far as changing the **diversion point** of the Caldwell Canal, see this article from the Caldwell Tribune 5/21/1891:

The Caldwell Real Estate & Water Company took possession of the Caldwell Canal last fall and it is now a great success, according to the Caldwell Tribune. Acting on the advice of W.D. Arnett, the company abandoned the old headgate, which was located on one of the many sloughs that traverse the bottom lands of the Boise River, and located the point of diversion one mile higher up in order to take water out of the main channel. About one mile of new ditch had to be built from this point to connect with the old works. About a mile below the point of diversion is the second headgate; from this point down to the forks of the ditch on Canyon Hill two miles above town, the old works have been thoroughly overhauled.

2) The **original Caldwell canal** is described in the following records:
In the **Biennial Report of the State Engineer for 1899-1900**:
The Caldwell Ditch is described as: "takes its water from the Boise River on the south side in Sec. 24, T4N, R2W. It crosses the first bottom, and a half mile from the head reaches the foot of the bluff, which it follows in a westerly direction for 2 miles to the top of the bench. After reaching the bench, it has a southwesterly direction for about 10


Township 4n1w
nw06 ne06 nw05 ne05 nw04 ne04 nw03 ne03 nw02 ne02 nw01 ne01
sw06 se06 sw05 se05 sw04 se04 sw03 se03 sw02 se02 sw01 se01
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nw18 ne18 nw17 ne17 nw16 ne16 nw15 ne15 nw14 ne14 nw13
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nw19 ne19 nw20 ne20 nw21 ne21 nw22 ne22 nw23 ne23 nw24 ne24
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W CHINDEN BLVD
U.S. HIGHWAY 20 & 26
ADA COUNTY
CANYON COUNTY

PID001112

302
Carter

The United States of America 1 302

To all to whom these presents shall come Greeting
Homestead Certificate No. 290 }
Application 421 } Whereas, There has been deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Boise City Idaho Territory, whereby it appears that pursuant to the Act of Congress approved 20th May, 1862, "To secure Homesteads to actual Settlers on the Public Domain" and the acts supplemented thereto, the claim of Charles E Carter has been established and duly consummated in conformity to law, for the north west quarter of the north west quarter of Section twenty three, and the north-East quarter of the north east quarter of section twenty-two, the lot numbered five of Section fourteen and the lot numbered eight of section fifteen in township four north of range two west of Boise Meridian in Idaho Territory, containing one hundred and seventy-one acres and fifty-five hundredths of an acre according to the Official Plat of the Survey of the said Land, returned to the General Land Office by the Surveyor General:

Now Know Ye: That there is therefore granted by the United States unto the said Charles E Carter the tract of Land above described: To have and to hold the said tract of Land, with the appurtenances thereof, unto the said Charles E Carter and to his heirs and assigns forever: subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law.

In Testimony Whereof, I James A Garfield, President of the United States of America have caused these letters to be made Patent, and the Seal of the General Land Office to be hereunto affixed.

Given under my hand, at the City of Washington, the nineteenth day

PID001113

of August, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one Hundred and sixth.

By the President James A. Garfield

By W. H. Crook, Secretary.

J. W. Clark Recorder of the General Land Office

Recorded, Vol 1
Page 276

Recorded at the request of Charles E. Carter October 10, 1882, at 4 P.M.

D. Arrow
Recorder

C C Records
W. S. Patents
P 348

Homestead Certificate Application 1079

The United States of America To all to whom these presents shall come Greeting:—
Whereas There has been deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Boise City, Idaho Territory whereby it appears that pursuant to the Act of Congress approved 20th May 1862, "To secure Homesteads to Actual Settlers on the Public Domain," and the acts supplemental thereto the claim of Hamilton Davis has been established and duly consummated in conformity to law for the South half of the North East Quarter the North west quarter of the North East quarter and the North East quarter of the North West quarter of Section Twenty (20) in Township Four North of Range Two West of Boise Meridian in Idaho Territory containing one hundred and sixty acres according to the official plat of the survey of the said Land returned to the General Land Office by the Surveyor General. Now know ye That there is therefore granted by the United States unto the said Hamilton Davis the tract of Land above described: To have and to hold the said tract of Land with the appurtenances thereof unto the said Hamilton Davis and to his heirs and assigns forever, subject to any vested and accrued water rights for mining agricultural manufacturing or other purposes and rights to ditches and reservoirs used in connection with such water rights as may be recognized by the local customs, laws and decisions of Courts and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom should the same be found to penetrate or intersect the premises hereby granted as provided by law. In Testimony Whereof I Grover Cleveland President of the United States of America have caused these letters to Make Patent and the Seal of the General Land Office to be hereunto affixed. Given under my hand at the City of Washington the Fifteenth day of September in the year One thousand eight hundred and eighty seven and of the Independence of the United States of the one hundred and twelfth.

Seal.

By the President: Grover Cleveland
By M R Banks. Secretary
Robt W Ross Recorder of the General Land Office

Recorded Vol 1 Page 499.

Recorded at the Request of C H Reed May 21st 1890 @ 2-10 P.M.

S B Mann Recorder
By Geo A Kirkwood Deputy

C. E. Reeves
W. S. Putnam
Boise, Ida

Dodd Certificate No 157

The United States of America, [illegible] to whom these presents [illegible] Greeting.
Whereas David P. Dodd of Ada County Idaho Territory has deposited in General Land Office of the United States a Certificate of the Register of the Land Office at Boise City, Idaho Territory whereby it appears that full payment has been made by the said David P. Dodd according to the provisions of the Act of Congress of the 24th of April 1820, entitled "An act making further provisions for the sale of the Public Lands" for the North half of the North West quarter of Section Twenty four and the Lots numbered Five and Six of Section Thirteen in Township Four North of Range Two West in the District of Lands subject to sale at Boise City Idaho Territory containing One hundred and Sixty five acres, and Seventy hundredths of an Acre according to the Official Plat of the Survey of the said Lands returned to the general land office by the Surveyor General, which said Tracts have been purchased by the said David P. Dodd.
Now Know ye, That the United States of America, in Consideration of the premises and in Conformity with the several acts of Congress in such Case made and provided, have given and granted, and by these presents do give and grant unto the said David P. Dodd and to his heirs the said Tracts above described: To have and to hold the same, together with all the rights, privileges immunities and appurtenances of whatsoever nature thereunto belonging unto the said David P. Dodd and to his heirs and assigns forever; Subject to any vested and accrued water rights for mining agricultural, manufacturing, or other purposes, and rights to Ditches and reservoirs used in Connection with such water rights as may be recognized and acknowledged by the local customs laws and decisions of Courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted according to law.
In Testimony Whereof, I Ulysses S. Grant, President of the United States of America, have caused these letters to be made patent and the seal of the General Land Office to be hereunto affixed. Given under my hand at the City of Washington the Twentieth day of December in the year of our Lord one thousand eight hundred and Seventy two [illegible] of the Independence of the United States the Ninety Seventh.

By the President U. S. Grant
By S. D. Williamson Secretary.

Recorded Vol 2 Page 26. C. B. Boynton Recorder of the General Land Office
Recorded at request of Adam Schindler Nov 15th 1887 at 25 Min. past 3 P.M.

C. S. McConnel
Recorder

C. B. Boynton
W. S. Patent
Book 1 Page 410

PID001116

United States Patent
To
John H. Jobe

1 815

Recorded Certificate No 874
Application 1136.

The United States of America

To all to whom to these Presents shall come, Greeting:

Whereas There has been deposited in the General Land Office of The United States a Certificate of the Register of the Land Office at Boise City, Idaho Territory, whereby it appears that, Pursuant to the Act of Congress approved 20th May 1862. To secure Homesteads to actual Settlers on the Public Domain, and the acts supplemental thereto, the claim of John H Jobe has been established and duly consummated, in conformity to law. For the

South East Quarter of Section Fourteen in Township Four North of Range Three West of Boise Meridian in Idaho Territory containing one hundred and sixty acres, according to the Official Plat of the survey of the said land, returned to the General Land Office by the Surveyor General.

Now Know Ye, that There is, therefore, granted by the United States unto the said John H Jobe the tract of land above described, to have and to hold the said tract of land, with the appurtenances thereof, unto the said John H Jobe, and to his heirs and assigns forever. Subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the Proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law.

In Testimony Whereof I Benjamin Harrison President of the United States of America, have caused these Letters to be made Patent, and the seal of the General Land Office to be hereunto affixed.

Given under my hand, at the City of Washington the twenty seventh day of June, in the year of our Lord one thousand eight hundred and eighty-

nine, and of the Independence of the United States the one hundred and thirteenth.

(Seal) By the President Benjamin Harrison
By M McKean Secretary

Recorded Vol 2, Page 79.

J. M. Townsend
Recorder of the General Land Office.

Recorded at the request of J H Jobe
Dec. 12th 1891. at 1:50 P.M.

Sherman G. King
Recorder

E C Reynolds
W. S. Patents
Cover 41 Page 168

Ex.

The United States of America. 1 166

To all to whom these presents shall come, Greeting;

Homestead Certificate No 109
Application No 273

Whereas there has been deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Boise City, Idaho Territory, whereby it appears that, pursuant to the Act of Congress Approved 20th May 1862, "To secure Homesteads to actual Settlers on the Public Domain," and the acts supplemental thereto, the claim of Charles Madden has been established and duly consummated, in conformity to law, for the South half of the South West quarter of Section Sixteen and the North half of the North West West quarter of Section twenty one, in Township Four North, of Range two West, in the District of lands subject to sale at Boise City, Idaho Territory containing one hundred and Sixty acres according to the Official Plat of the Survey of the said Land returned to the General Land Office by the Surveyor General:

Now Know Ye that there is therefore granted by the United States unto the said Charles Madden and to his heirs and assigns forever subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law.

In testimony whereof, I, Ulysses S. Grant, President of the United States of America, have caused these letters to be made Patent; And the Seal of the General Land Office to be hereunto affixed.

Given under my hand, at the City of Washington, the 30th day of September, in the year of our Lord one thousand eight hundred and Seventy six, and of the Independence of the United States the one hundred and first

(Seal) By the President. W. S. Grant

By D S Cone Secretary.

Recorded Vol 1. Page. 116

S. W. Clark. Recorder of the General Land office

Recorded at the request of C. Madden Mch 22d 1878 at 20 min. past 2 P.M.

W. M. Hawthorne
Recorder

C. C. Recorded
W. S. Patents
Ex. P. 15

PID001119

Ex.

1 167

U.S. To Pott.

The United States of America,
To all to Whom these presence shall come. Greeting:
Homestead Certificate No 72
Application 190

Whereas there has been deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Boise City, Idaho Territory, whereby it appears that, pursuant to the act of Congress approved 20th May, 1962, "To secure Homesteads to actual Settlers on the Public Domain," and the acts supplemental thereto, the claim of Michael Pott has been established and duly consumated, in conformity to law, for the West half of the South East quarter, and the East half of the South West quarter of Section thirteen, in Township four North, of Range three West in the District of Lands subject to sale at Boise City, Idaho Territory, containing one hundred and sixty acres, according to the Official Plat of the survey of the said Land, returned to the General Land Office by the Surveyor General.

Now Know Ye, That there is, therefore, granted by the United States unto the said Michael Pott the tract of Land above described. To have and to hold the said tract of Land with the appurtenances thereof, unto the said Michael Pott and to his heirs and assigns forever, subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law.

In testimony whereof, I, Ulysses S. Grant, President of the United States of the United States of America, have caused these Letters to be made Patent, and the Seal of the General Land Office to be hereunto affixed.

(Seal)

Given under my hand at the City of Washington, the fifteenth day of March, in the year of our Lord one thousand eight hundred and seventy six, and of the Independence of the United States, the one hundredth.

By the President U S Grant

By D. D. Cone, Secretary.

Recorded Vol 1. Page 81.

C. W. Holcomb.
Recorder of the General Land Office.

Recorded at request of Michael Pott April 18th 1878 at 13 min past 3 P.M.

R. M. Hanthorn. Recorder

E. E. Recorded
W. S. Patent
Ann. Page 81

PID001120

22

Potts Certificate No 61

1 302

The United States of America, To All to whom these presents shall come Greeting: Whereas Michael Potts of Ada County Idaho Territory has deposited in the General Land Office of the United States a certificate of the Register of the Land Office at Boise City Idaho Territory whereby it appears that full payment has been made by the said Michael Potts according to the provisions of the Act of Congress of the 24th of April 1820 entitled "An Act making further provisions for the sale of the Public lands" for the South West quarter of the North East quarter, the South East quarter of the North West quarter and the Lots numbered one and two of Section thirteen in Township Four North of Range three West in the District of Lands subject to sale at Boise City Idaho Territory, Containing One Hundred and Fifty Acres and fifty two hundredths of an acre, according to the official Plat of the Survey of the said Lands, returned to the General Land Office by the Surveyor General which said Tracts have been purchased by the said Michael Potts Now Know Ye, That the United States of America in consideration of the premises, and in conformity with the several Acts of Congress in such case made and provided have given and granted and by these presents do give and grant, unto the said Michael Potts and to his heirs the said Tract above described: To have and to hold the same, together with all the rights privileges and immunities and appurtenances of whatsoever nature thereunto belonging unto the said Michael Potts and to his heirs and assigns forever.

In Testimony Whereof I Ulysses S Grant President of The United States of America have caused these letters to be made Patent and the Seal of the General Land Office to be hereunto affixed.

(Seal)

Given under my hand at the City of Washington the fifteenth day of July in the year of our Lord One thousand eight hundred and Seventy One and of the Independence of the United States the Ninety Sixth

By the President U.S. Grant

By J. Parrish Secy

Recorded Vol 1 Page 5 } C.B. Boynton Recorder of the General Land Office

Recorded at request of Brumback & Lamb Sept 28th 1885 at 9 Oclock A.M. C.A. McConnel Recorder

PID001121

102 Ex

The United States of America, s. 1 102

Schindler To all To Whom these Presents Shall Come, Greeting:

Homestead Certificate No $8
Application 88 } Whereas There has been deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Boisebity, Idaho Territory, whereby it Appears that, Pursuant to the act of Congress approved 20th May 1862, "To secure Homesteads to actual Settlers on the Public Domain", and the acts Supplemental thereto, the claim of Adam Schindler has been established and duly consummated in conformity to law for the Lots numbered five and Six of Section eighteen, in Township four north of Range three West; the Lot numbered ten of Section twelve, and the north east quarter of the North East quarter of Section thirteen, in Township four North of Range four West, in the district of lands subject to Sale at Boise City, Idaho Territory containing One hundred and fifty six Acres and two hundredths of an Acre according to the Official Plat of the survey of the said Land, returned to the General Land Office by the Surveyor General:

Now Know Ye, That there is, therefore, granted by the United States unto the said Adam Schindler the Tract of Land above described.

To have and to hold the said Tract of Land, with the appurtenances thereof, unto the said Adam Schindler and to his heirs and assigns forever; subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted as provided by law.

In Testimony Whereof, I, Ulysses S. Grant, President of the United States of America, have caused these letters to be made Patent, and the Seal of the General Land office to be hereunto affixed.

Given under my Hand, at the City of Washing-

PID001122

1 103

ington, the Twenty Fifth day of March, in the year of Our Lord one thousand eight hundred and Seventy Five, and the Independence of the United States the Ninety Ninth

By the President: U.S. Grant

By J.D. Williamson,
Secretary,

Seal

Recorded, Vol. 1, Page 45
S. K. Lippincott
Recorder of the General Land Office.

Recorded at the request of J.D. Reed, September 15th 1876, at 42 min. past 1. P.M.
W. W. Hawthorne
Recorder.

PID001123

1 539

Adam Schindler
Desert Lands
Cert. No. 13

The United States of America, To all to whom these presents shall come, Greeting: Whereas Adam Schindler of Ada County, Idaho Territory, has deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Boise City, Idaho Territory, whereby it appears that full payment has been made by the said Adam Schindler according to the provisions of the Act of Congress of the 24th of April, 1820 entitled "An Act making further provision for the sale of the Public Lands" and the acts supplemental thereto, for the South half of the Northeast quarter of Section Twenty three and the South half of the Northwest quarter of Section Twenty four in Township Four North of Range Two West of Boise Meridian in Idaho Territory containing one hundred and sixty acres, according to the Official Plat of the Survey of the said Lands, returned to the General Land Office by the Surveyor General, which said tract has been purchased by the said Adam Schindler, Now know ye, That the United States of America, in consideration of the premises, and in conformity with the several acts of Congress in such case made and provided, have given and granted, and by these presents do give and grant, unto the said Adam Schindler and to his heirs, the said Tract above described: To have and to hold the same, together with all the rights, privileges, immunities, and appurtenances of whatsoever nature thereunto belonging, unto the Said Adam Schindler and to his heirs and assigns forever, subject to any vested and accrued water rights, for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law. In Testimony whereof, I Grover Cleveland, President of the United States of America, have caused these letters to be made Patent, and the seal of the General Land Office to be hereunto affixed

Seal.

Given under my hand, at the City of Washington, the eleventh day of January, in the year of our Lord one thousand eight hundred and eighty nine, and of the Independence of the United States the one hundred and thirteenth. By the President, Grover Cleveland

By M. McKean Secretary

(Recorded Vol. 3 Page 131) . Robt. W. Ross Recorder of the General Land Office.

C. E. Recorder Recorded at request of Adam Schindler April 5th 1889 at 40 min past 3 P.M. S. T. McKean Recorder
U. S. Patents
Book 1, Page 436

PID001124

U. S.
To
Wheatley.

The United States of America. 237

To all to whom these presents shall come, Greeting.

Homestead Certificate No 2 36
Application 420 } Whereas there has been deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Boise City Idaho Territory, whereby it appears that, pursuant to the Act of Congress approved 20th May, 1862, "To secure Homestead to actual Settlers on the Public Domain," and the acts supplemental thereto, the claim of Thomas Wheatley has been established and duly consummated, in conformity to law, for the East half of the North West quarter of section twenty three and the Lot numbered six of section fourteen in Township four North of Range two West, in the district of lands subject to sale at Boise City Idaho Territory containing one hundred and thirty-eight acres and sixty-six hundredths of an acre, according to the Official Plat of the survey of the said Land, returned to the General Land Office by the Surveyor General:

Now Know Ye, that there is, therefore, granted by the United States unto the said Thomas Wheatley the tract of land above described.

To have and to hold the said tract of land, with the appurtenances thereof, unto the said Thomas Wheatley and to his heirs and assigns forever subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of Courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law

In testimony whereof, I Rutherford B. Hayes, President of the United States of America, have cause these letters to be made Patent, and the Seal of the General Land Office to be hereunto affixed.

Given under my hand at Washington City, the fifteenth day of April, in the year of our Lord one thousand eight hundred and Eighty, and of the Independence of the United

(Seal)

PID001125

States the one hundred and fourth.

By the President. R. B. Hayes.
By W. H. Crook, Secretary.

Recorded, Vol. 1, Page 221
S. W. Clark,
Recorder of the General Land Office.

Recorded at the request of Thomas Wheatley, Oct 29th 1880 at 48 min. past 8 am.
N. M. Hawthorne
Recorder

C. C. Recorded
W. S. Entered
Oct 1884

Wheatley

1 308

The United States of America:
To all to whom these presents shall come, Greeting:

Certificate, No. 194 } Whereas Thomas Wheatley of Ada County Idaho Territory has deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at Boise City Idaho Territory whereby it appears that full payment has been made by the said Thomas Wheatley according to the provisions of the Act of Congress of the 24th of April 1820, entitled "An Act making further provision for the sale of the Public Lands." for the North half of the North East quarter of Section twenty-three, and the Lots numbered seven and eight of Section fourteen in Township four, North of Range two, West in the District of Lands subject to sale at Boise City, Idaho Territory, containing One Hundred and twenty acres and forty four hundredths of an acre, according to the Official Plat of the Survey of the said Lands, returned to the General Land Office by the Surveyor General, which said Tracts have been purchased by the said Thomas Wheatley.

Now Know Ye,

That the United States of America, in consideration of the premises, and in conformity with the several Acts of Congress in such case made and provided, have given and granted, and by these Presents do give and grant unto the said Thomas Wheatley and to his heirs the said Tracts above described: To have and to hold the same, together with all the rights, privileges, immunities, and appurtenances of whatsoever nature, thereunto belonging, unto the said Thomas Wheatley and to his heirs and assigns forever, subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom should the same be found to penetrate or intersect the premises hereby granted, as provided by Law.

In Testimony Whereof, I Ulysses S. Grant President of the United States of America have caused these Letters to be made Patent, and the Seal of the General Land Office to be hereunto Affixed.

Given under my hand, at the City of Washington the tenth day of April in the year of our Lord one thousand eight hundred, and Seventy-five, and of the Independence of the United States the ninety ninth.

Seal

By the President
U. S. Grant

By S. D. Williamson, Secretary

L. K. Lippincott
Recorder of the General Land Office

Recorded, Vol. 2
Page 58

Recorded at the request of Joseph K. Howard October 26th 1882, at 20 min. past 9 A.M.
D. Heron
Recorder

E. C. Recorded
W. S. Patented
Book 41
Page 354

U.S.
To
Wootan

The United States of America,
To all to whom these presents shall come, Greeting;
Homestead Certificate No 42.
Application 95. } Whereas there has been deposited in the General Land office of the United States a Certificate of the Register of the Land Office at Boise City, Idaho Territory, whereby it appears that, pursuant to the Act of Congress approved 20th May 1862, "To secure Homesteads to actual settlers on the public Domain", and the Acts supplemental thereto, the claim of George W. Wootan has been established and consummated, in conformity to law, for the North east quarter of section eighteen, in Township four North, of Range two West, in the District of lands subject to sale at Boise City, Idaho Territory containing one hundred and sixty acres according to the Official Plat of the Survey of the said land, returned to the General Land Office by the Surveyor General:

Now know ye, that there is, therefore, granted by the United States unto the said George W. Wootan the tract of Land above described.

To have and to hold the said tract of Land with the appurtenances thereof, unto the said George W. Wootan and to his heirs and assigns forever, subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law.

In Testimony whereof, I, Ulysses S. Grant, President of the United States of America, have caused these Letters to be made Patent, and the Seal of the General Land Office to be hereunto affixed.

Given under my hand, at the City of Washington, the Twentieth day of March, in the year of our Lord One thousand Eight Hundred and Seventy five, and of the Independence of the United States the Ninety Ninth.

By the President, U.S. Grant. By S. D. Williamson Secretary.

Seal

Recorded Vol. 1 Page 49. L. K. Lippincott, Recorder of the General Land Office.

Recorded at request of G. W. Wootan Nov 26th 1877 at 2 44 Min Past Six P.M.
W. W. Hawthorne Recorder

C. C. Reeves
W. J. Pettit
By P.O.

PID001129

334

Carter
To
Ball

5 408

This Indenture, Made the Tenth day of October in the year of our Lord one thousand eight hundred and eighty Two, Between, Charles E. Carter of Ada County I. T. and Anna L. Ball of said County and Territory the party of second part. Witnesseth, That the said party of the first part for and consideration of the sum of one thousand Dollars, Lawful money of the United States of America, to him in hand, paid by the said party of the second part, the receipt whereof is hereby acknowledged has granted, bargained, sold and confirmed, and by these presents does grant, bargain, sell, and confirm unto the said party of the second part, and to his heirs and assigns forever, all of the following described pieces and parcels of Land, Situate, lying, and being in Ada County Idaho Territory, to wit:

The North-east quarter of the North-east quarter of Section twenty-two (22), and Lot No. Eight (8), of Section fifteen (15), in Township four (4), North of Range two (2), west of Boise Meridian.

Together with all and singular the tenements, hereditaments and appurtenances thereunto, belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof and also all estate, right, title, interest of Homestead property, possession, claim and demand whatsoever, as well in law as in equity, of the said party of the first part, of, in or to the said premises, and every part and parcel thereof with the appurtenances.

To have and to hold, all and singular the said premises, together with the appurtenances unto the said party of the second part, and to his heirs, and assigns forever. And the said party of the first part, and his heirs, the said premises, in the quiet and peaceable possession of the said party of the second his heirs and assigns, against the said party of the first part, and his heirs against all and every person and persons whomsoever, lawfully, claiming, or to claim the same, shall and will Warrant and by these presents forever Defend.

In Witness Whereof, the said party of the first part, has hereunto set his hand and seal the day and year first above written.

Signed, Sealed and Delivered in the Presence of
A Heron

Charles E. Carter (Seal)

PID001130

Territory Idaho }
County of Ada } ss

On this Tenth day of October A.D. 1882 personally appeared before me, D. Heron County Recorder in and for said County of Ada Charles E. Carter who is personally known to me to be the identical person described in, and who executed the foregoing instrument of writing, and acknowledged to me that he had executed the same freely, and voluntarily, and for the uses and purposes therein mentioned.

seal

In Witness Whereof, I have hereunto set my hand and affixed my Official Seal, the day and year in this Certificate above written.

D. Heron
County Recorder

C.C.R
Deeds
Book I
Page 56

Recorded at the request of Amza L. Ball
Oct 10th 1882, at 10 min. past 4 P.M.

D. Heron
Recorder

PID001131

Carter To Ball

This Indenture, Made the Tenth day of October in the year of our Lord one thousand eight hundred and eighty Two Between John A. Carter of Ada County I.T. of the first part, and Amza L. Ball of the same place the party of the second part, Witnesseth, That the said party of the first part for and in consideration of the sum of Three Hundred Dollars, Lawful Money of the United States of America, to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained, sold and confirmed, and by these presents does grant, bargain sell and confirm unto the said party of the second part, and to his heirs and assigns forever, all of the following described piece or parcel of Land, Situate, lying and being in Ada County Territory of Idaho, and more particularly described as follows, to wit;

The South-East quarter of North East quarter of Section No. twenty-two (22) in Township No. four (4). North of Range No. two (2) west, Containing forty (40) acres of Land.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainds, rents, issues and profits thereof, and also all estate, right, title, interest of Homestead property, possession, claim and demand whatsoever, as well in law as in equity, of the said party of the first part, of, in or to the said premises, and every part and parcel thereof, with the appurtenances.

To have and to hold, all and singular the said premises, together with the appurtenances, unto the said party of the second part, and to his heirs, and assigns forever. And the said party of the first part, and his heirs, the said premises, in the quiet and peaceable possession of the said party of the second part, his heirs and assigns against the said party of the first part, and his heirs, against all and every person and persons whomsoever lawfully claiming or to claim the same, shall and will Warrant and by these presents forever Defend.

In Witness Whereof, the said party of the first part, has hereunto set his hand and seal the day and year first above written

Signed, sealed and delivered in the presence of, D. Hiron
witness his mark, A. Schindler

John A. his x mark Carter (Seal)

PID001132

Territory of Idaho }
County of Ada } ss

On this Tenth day of October A.D. 1882. personally appeared before me D. Heron County Recorder in and for said County of Ada, John N. Colter who is personally known to me to be the identical person described in, and who executed the foregoing instrument of writing, and acknowledged to me that he had executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

In Witness Whereof I have hereunto set my hand and affixed my Official Seal the day and year in this Certificate above written

Seal

D. Heron
County Recorder

C.C.R. Deeds Book I Page 566

Recorded at the request of Emma L. Ball Oct 10. 1882. at 10 min. past 4. P.M.

D. Heron
Recorder

Sophia Wall
to
Amza S. Wall

This Indenture. Made the 31st day of March, in the year of our Lord one thousand eight hundred and ninety-two. (1892). ——
Between Sophia Wall of Ada County, Idaho, the party of the first part, and Amza S Wall of Ada County, State of Idaho, the party of the second part. ——
Witnesseth. That the said party of the first part, for and in consideration of the sum of One (1) Dollar, lawful money of the United States of America, to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, does by these presents, remise, release and forever Quitclaim, unto the said party of the second part, and to his heirs and assigns, all those certain lots, pieces or parcels of land situated in the said County of Ada, State of Idaho, and bounded and particularly described as follows, to wit: North East quarter (¼) of the South East quarter (¼) of Section Twenty-two (22) in Township Four (4), North of Range Two (2) West of the Boise Meridian, containing 40 acres. ——
(This deed is given to correct deed dated Dec 12. 1888. from said Amza S Wall to Sophia Wall and recorded in the Recorders Office Ada Co. Idaho, in Book 13 of Deeds at Page 329. at the time of said transfer it having been the intention to convey S½ of NE¼ of Sec. 22. Twp. 4 N. R 2 W. but by error the above described property was conveyed.). ——
Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging, or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof. ——
To Have and To Hold all and singular the said premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever. ——
In Witness Whereof, the said party of the first part has hereunto set his hand and seal, the day and year first above written. ——

Sophia Wall Seal.

Signed, Sealed and Delivered
in the Presence of
C. G. King
J. H. Morgan

PID001134

State of Idaho
County of Ada, ss.

On this 31st day of March, in the year 1892, before me Sherman G King Recorder in and for said County, personally appeared Sophia Ball wife of Amza D Ball known to me to be the person whose name is subscribed to the within instrument, described as a married woman, and upon an examination without the hearing of her husband, I made her acquainted with the contents of the instrument, and thereupon she acknowledged to me that she executed the same, and that she does not wish to retract such execution.

In Witness Whereof I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Sherman G King
Recorder

(Seal)

Recorded at the request of Amza D Ball
May 10 1892 at 8 A.M.

Sherman G King
Recorder

By Jas H Morgan
Deputy.

C. C. R.
Deed
Book 49
Page 20

Mason. To Doe

This Indenture, Made the 24th day of April, in the years of Our Lord One Thousand Eight Hundred and Seventy Nine Between Marion E. Mason of Ada County, Idaho Territory, party of the first part, and E. H. Cook of the same County and Territory the party of the second part. Witnesseth, That the said party of the first part, for and in consideration of the sum of Two Thousand ($2000.00) Dollars, Lawful Money of the United States of America, to me in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained, sold, aliened, remised, released, conveyed and confirmed, and by these presents do grant, bargain, sell, alien, remise, release, convey, and confirm unto the said party of the second part, his heirs and assigns forever, all the following Lots, Pieces and Parcels of Land, Situate, Lying, and being within the County of Ada, and Territory of Idaho to Wit: The East half of the North West quarter and the North East quarter of the South West quarter and the Lot numbered three of Section Eighteen, in Township four North, of Range two West, and Lots numbered one and two of Section Eighteen, in Township four North, of Range two West, and the South East quarter of the North East quarter and the North East quarter of the South East quarter of Section thirteen, in Township four North, of Range three West.

Together With all and singular the tenements, hereditaments and appurtenances thereunto belonging, or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and also all estate, right, title, interest property, possession, claim and demand whatsoever, as well in Law as in Equity, of the said party of the first part, of, in or to the said premises, and every part and parcel thereof, with the appurtenances.

To have and to hold, all and singular the said premises, Together with the appurtenances unto the said party of the second part, and to his heirs and assigns forever. And the said party of the first part, and his heirs, the said premises, in the quiet and peaceable possession of the said party of the second part, his heirs and assigns, against the said party of the first part, and his heirs, and against all and every person and persons whomsoever, Lawfully Claiming or to claim the same, shall and will Warrant, and by these presents forever demand.

PID001136

4 1017

In Witness Whereof, the said party of the first part has hereunto set his hand and seal the day and year first above written.

Signed, Sealed and delivered in the presence of } Marion E. Mason (Seal)
I. J. Curtis

Territory of Idaho
County of Ada } ss

On this 24th day of April A.D. One thousand eight hundred and seventy nine personally appeared before me I. J. Curtis Probate Judge in and for said County, Marion E. Mason who is personally known to me to be the identical person described in, and who executed the foregoing instrument of writing and acknowledged to me that he had executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

In Witness Whereof, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

(Seal)

I. J. Curtis
Probate Judge

C.C.R. Deeds Book 1 Page 392

Recorded at the request of L. F. Cook Feb. 11th A.D. 1880. at 10 min. past 10 A.D.

N. M. Hamilton
Recorder.

330

Carter
To
Ford

5 414

This Indenture, Made the Tenth day of October in the year of our Lord one Thousand eight hundred and eighty two Between John A. Carter of Ada County Territory of Idaho the party of the first part, and George W. Ford the party of the second part, Witnesseth, That the said party of the first part for and in consideration of the sum of Fifteen Hundred Dollars, lawful money of the United States of America, to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained, sold and confirmed, and by these presents does grant, bargain sell and confirm unto the said party of the second part and to his heirs and assigns forever, all of the following described pieces or parcels of Land, situate, lying and being in Ada County Territory of Idaho, and more particularly described as follows, to wit:

The North west quarter of North East quarter, and South west quarter of North east quarter of Section No. twenty-two (22) in Township four (4), North of R. two (2) west, also Lot No Seven (7) Section fifteen (15), Township four (4) N. of R. two (2) west, containing One Hundred and thirty (130) acres, and ninety hundredths 90/100 of an acre more or less.

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions remainder and remainders, rents, issues and profits thereof and also all estate, right, title, interest of Homestead property, possession, claim and demand whatsoever as well in law as in equity, of the said party of the first part, of, in or to the said premises, and every part and parcel thereof, with the appurtenances, To Have and to hold all and singular the said premises, together with the appurtenances unto the said party of the second part, and to his heirs, and assigns forever. And the said party of the first part, and his heirs, the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns, against the said party of the first part, and his heirs, against all and every person and persons whomsoever, lawfully claiming or to claim the same, shall and will Warrant and by these presents forever Defend.

PID001138

In Witness Whereof, the said party of the first part has hereunto set his hand and seal the day and year first above written.

Signed, Sealed and Delivered in the Presence of D. Heron

John H. his X mark Carter (seal)

Witness his mark, A. Schindler

Territory of Idaho } ss
County of Ada }

On this Tenth day of October A.D. 1882, personally appeared before me, D. Heron County Recorder in and for said County of Ada John H. Carter who is personally known to me to be the identical person described in, and who executed the foregoing instrument of writing, and acknowledged to me that he had executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

(seal)

In Witness Whereof I have hereunto set my hand & affixed my Official Seal, the day and year in this Certificate above written.

D. Heron
County Recorder

JCR Deeds Book 1 Page 569

Recorded at the request of George W. Ford Oct 10, 1882, at 10 min. past 4. P.M.

D. Heron
Recorder

Schindler
To
Howard

This Indenture, Made the Twenty Sixth day of October in the year of our Lord one thousand eight hundred and Eighty Five, Between Adam Schindler of Ada County Idaho Territory party of the first part, and Joseph K. Howard of the same place the party of the second part, Witnesseth. That the said party of the first part for and in consideration of the sum of Three Thousand Dollars, Lawful Money of the United States of America, to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained, sold and confirmed, and by these presents does grant, bargain, sell and confirm unto the said party of the second part, and to his heirs and assigns, forever, all of the following lots, pieces and parcels of Land, Situate, Lying and Being in Ada County, Idaho Territory, described as follows to wit:

The North half of the North East quarter of Section twenty-three (23) and the Lots numbered Seven (7), and Eight (8) of Section fourteen, in Township four North of Range two west and also the South half (½) of North, E. ¼ of Section twenty-three (23) Township four (4). N. of R. 2 west, containing in all two hundred acres and forty-four hundredths of an acre.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and also all estate, right, title, interest of Homestead property, possession, claim and demand whatsoever as well in Law as in equity, of the said party of the first part, of, in or to the said premises, and every part and parcel thereof, with the appurtenances.

To have and to hold, all and singular the said premises, together with the appurtenances unto the said party of the second part, and to his heirs, and assigns forever. And the said party of the first part, and his heirs, the said premises, in the quiet and peaceable possession of the said party of the second part his heirs and assigns, against the said party of the first part, and his heirs against all and every person and persons whomsoever lawfully claiming or to claim the same, shall and will Warrant and by these presents forever Defend.

374
~~334~~

5 438

In Witness Whereof, the said party of the first part has hereunto set his hand and seal the day and year first above written.

Signed Sealed and Delivered in the Presence of } Adam Schindler (seal)
D. Heron

Territory of Idaho }
County of Ada } ss

On this 26th day of October A.D. 1882. personally appeared before me D. Heron County Recorder in and for said County of Ada Adam Schindler who is personally known to me to be the identical person described in, and who executed the foregoing instrument of writing, and acknowledged to me that he had executed the same freely and voluntarily, and for the uses and purposes therein mentioned

seal

In Witness Whereof I have hereunto set my hand, the day and year in this Certificate above written

D. Heron
County Recorder

C.C.R. Deeds Book 1 Page 479

Recorded at the request of Jas K Howard October 26th 1882, at 10 Min. past 9. A.M.

D. Heron
Recorder

PID001141

Parvien Holland
To
David P. Dodd.

This Indenture made the twenty-fourth day of February One Thousand Eight hundred and Seventy three Between Parvien Holland of the County of Ada in the Territory of Idaho the party of the first part and David P. Dodd of the same place party of the second part Witnesseth: that the said party of the first part for and in Consideration of the sum of Sixteen hundred and Eighty Dollars in Gold Coin of the united States of America to him in hand paid by the said party of the second part at or before the ensealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted bargained Sold, aliened, remised, released, conveyed, and confirmed, and by these presents does grant bargain, sell alien, release, convey and confirm unto the said party of the second part and to his heirs and assigns forever. All of the following described premises property and real estate, situate, lying and being in the County of Ada and Territory of Idaho to wit:

The South half (1/2) of the South West quarter (1/4) of Section No fifteen (15) and the North half (1/2) of the North West Quarter (1/4) of Section No twenty two (22) in Township No four (4) North of Range No two West, Containing One hundred and Sixty acres, More or less, according to the Government Survey, Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the reversion and reversions remainder and remainders, rents, issues and profits thereof. And also all the estate right title interest right of homestead property possession, claim and demand whatsoever as well in law as in Equity of the party of the first part of in or to the above described premises and every part and parcel thereof with the appurtenances.

To Have And To Hold all and singular the above Mentioned and described premises together with the appurtenances unto the said party of the second part his heirs and assigns forever. And the said Parvien Holland [illegible]

and peaceable possession of the said party of the second part his heirs and assigns against the said party of the first part heirs and against all and every person and persons whomsoever lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In witness whereof the said party of the first part has hereunto set his hand and seal the day and year first above written.

Signed sealed and delivered in presence of H.C. Prickett } Parvien Holland [seal]

Territory of Idaho. } ss
County of Ada } On this twenty fourth day of February A.D. One Thousand Eight hundred and Seventy three before me Sol Hasbrouck a Notary Public in and for said Ada County duly commissioned and sworn, personally appeared the within named Parvien Holland, whose name is subscribed to the foregoing instrument as a party thereto, personally known to me to be the individual described in and who executed the said foregoing instrument and he acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

In witness whereof I have hereunto set my hand and affixed my Official Seal the day and year in this certificate first above written.

[seal] Sol Hasbrouck.
Notary Public.

Filed for Record at request of David P Dodd
February 24th 1873 at 30 Minutes past 5 o'clock P.M.

Compared
Indexed
From B-4-P-693.

N.M. Hawthorn
Recorder

A.R. Newland & wife.
To.
J.S. Ward et. al.

Know all men by these presents that I A.R.T. Newland of the County of Ada and Territory of Idaho in Consideration of Eight hundred dollars to me in hand paid. the receipt whereof is hereby acknowledged. said money paid by J.S. Ward and J.H. Tobe. of the County and Territory aforesaid I do release and forever Quit Claim to the said J.S. Ward and J.H. Tob their heirs and assigns forever a certain lot of land described as follows.

1.00 U.S.R.S. on N 1st

Situated on the South side of Boise River bounded on the North by Boise River. on the East by Kingless and Nelsons ranch on the South by sage brush plains on the West by What is Known as the Canion. and Containing One hundred and sixty acres more or less. being the undivided half of said farm or ranch the other half of said Ranch belonging to John Morgan and conveyed to me by Jacob Staver and A.H. Bolles by their Deed dated Oct the 19th AD. 1864.

To Have and to hold said premises with all the privileges and appurtenances thereto belonging to said Grantee his heirs and assigns forever and I do hereby covenant with the said Grantees that I will warrant and defend title to the said premises against all claims of any person whatsoever claiming under me.

And I M.S. Newland wife of said A.R.T. Newland for the Consideration aforesaid do hereby release my write of dower in said premises.

In Witness whereof we have hereunto set our hand. this the 6th day of Oct 1866.

A.R.T. Newland (seal)
Margaret S. Newland (seal)

Signed Sealed and
delivered in presence of
L S Spangler

Territory of Idaho } ss
County of Ada }

I L.S. Spangler a Notary Public in and for the County aforesaid
Justice of the Peace in and for the County aforesaid
said do hereby certify that W.R.S Nuland. and
Margaret Nuland are personally known to me to be the
same persons whose names is subscribed to the
attached instrument of writing appeared before me
this day in person and acknowledged that they
signed sealed and delivered the said instrument of
writing as their free and voluntary act for the uses
and purposes therein set forth.

Given under my hand and
seal this the 6th day of Oct A.D. 1866.

L. S. Spangler [seal]
Justice of the Peace.

Filed February 13th 1867 at 11 o'clock A.M. and
Recorded at request of J Ward in said book No. 2 of
Compared
Index. Ed
Town B-2-P-155.

A.W. Flournoy
Recorder.

[seal]

PID001145

Charles T. Wilson
To
Adam Schindler

This Indenture made the second day of October in the year of our Lord One Thousand Eight hundred and Seventy Seven. Between Charles T. Wilson of Boise Valley Ada County Id. Territory the party of the first part and Adam Schindler of the same Valley County and Territory the party of the second part Witnesseth: That the said party of the first part for and in consideration of the sum of Twenty three hundred Dollars lawful money of the United States of America to him in hand paid by the said party of the second part the receipt whereof is hereby acknowledged has granted bargained sold conveyed and confirmed and by these Presents does grant bargain sell, convey and confirm unto the said party of the first part and to his heirs and assigns forever all of the following described Lots pieces and parcels of land situate lying and being in the County of Ada and Territory of Idaho. Viz:

The North One-half of the Northwest-one quarter (¼) of section Numbered Twenty four (24) and Lots numbered Five (5) and six (6) of section numbered Thirteen (13) in Township numbered Four (4) North of Range Number Two (2) West containing one Hundred and Sixty five acres and seventy one Hundredths of an acre, more or less. Also the East half of the North half of the Northeast quarter of section number Twenty three (23) and Lot No. Eight (8) in Section No. Fourteen (14) in Township No. Four (4) North of Range No. Two (2) West containing Sixty three and forty four one Hundredths acres (63 [illegible]) More or less.

Together with all and singular the Tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the reversion and reversions remainder and remainders rents issues and profits thereof and also all the estate right title interest right or claim of [illegible] property possession claim and demand [illegible] as well in law as in equity of the said party of the first part of [illegible] and [illegible] thereof with the appurtenances

To have and To Hold all and singular the above mentioned and described premises Together with the appurtenances unto the said party of the second part and to his heirs and assigns forever and the said party of the first part and his heirs the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns against the said party of the first part and his heirs and against all and every person and persons whomsoever lawfully claiming or to claim the same shall and will warrant and by these Presents forever Defend.

In Witness Whereof the said party of the first part has hereunto set his hand and Seal the day and year first above written

Signed Sealed and delivered in Presence N. M. Hanthorn } Charles T. Wilson (Seal)

Territory Of Idaho } ss.
County Of Ada }

On this Second day of October A.D. One thousand eight Hundred and Seventy Seven personally appeared before me N. M. Hanthorn County Recorder in and for the said Ada County: Charles T. Wilson whose name is subscribed to the annexed instrument as a party thereto personally known to me to be the same person described in and who executed the said annexed instrument as a party thereto who duly acknowledged to me that he executed the same freely and voluntarily. And for the uses and purposes therein mentioned

In Witness Whereof I have hereunto set my hand and affixed my official Seal the day and year in this certificate first above written

(Seal)

N. M. Hanthorn
County Recorder

B. 7 Deeds P. 154 Recorded at request of A. Schindler Oct 2nd A.D. 1877 at 40 min. past 2 P.M.

Compared

N. M. Hanthorn
Recorder

Jacob Fowler
To
Adam Schindler

This Indenture made the Twenty-eighth day of January in the year of our Lord One Thousand eight hundred and seventy eight. Between Jacob Fowler of Ada County Idaho Territory the Party of the first part and Adam Schindler of the same County and territory, the Party of the second part Witnesseth That the said party of the first part for and in consideration of the sum of One Hundred Dollars Lawful money of the United States of America to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged. does by these Presents Grant bargain sell Convey and confirm unto the said party of the second part and to his heirs and Assigns forever. all of the following described. Lots. Pieces or Parcels of land Situate lying and being in the County of Ada Territory of Idaho to wit:

The South East quarter of the Northeast quarter of section Twenty three. And the South half of the North west quarter of section Twenty four in Township Four north of Range Two west Containing One Hundred and Twenty acres more or less

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the ~~reversion and reversions remainders~~ rents issues and profits thereof.

To Have and To Hold. all and singular the above mentioned and described premises together with the appurtenances, unto the said party of the second part and to his heirs and assigns forever. And the said party of the first part and his heirs ~~and assigns~~ the said premises in the quiet and peaceable possession of the said party of the second part his heirs and Assigns against the said party of the first part and his heirs and against all and every person and persons whomsoever lawfully

B.7.
P.5[illegible]
Co[illegible]
In[illegible]

Claiming or to claim the same Shall and will Warrant and by these Presents forever Defend

In witness Whereof the said party of the first part has hereunto set his hand and Seal the day and year first above written

signed sealed and delivered in the Presence of N. M. Hanthorn } Jacob Fowler (Seal)

Territory Of Idaho } ss.
County Of Ada }

On this Twenty Eighth day of January A.D. One Thousand eight Hundred and Seventy eight Personally appeared before me N. M. Hanthorn County Recorder in and for the said Ada County. Jacob Fowler whose name is subscribed to the annexed Instrument as party thereto personally known to me to be the same person described in and who executed the said annexed instrument as party thereto, who duly acknowledged to me that he executed the same freely and voluntary and for the uses and purposes therein mentioned

In Witness Whereof I have hereunto set my hand and affixed my official Seal the day and year in this certificate first above written

(Seal) N. M. Hanthorn
County Recorder

B.7. Recorded at the request of Adam Schindler January
P.564 28th 1878 at 29 min past 3 P.M.

Compared
Indexed

N. M. Hanthorn
Recorder

Jacob Fowler
To
Adam Schindler

This Indenture Made the Seventh day of February One Thousand Eight Hundred and Eighty between Jacob Fowler of Ada County Idaho Territory Party of the first part and Adam Schindler of the same County and Territory the Party of the second part Witnesseth That the said party of the first part for and in consideration of the Sum of Nine hundred Dollars Lawful Money of the United States of America to him in hand paid by the said party of the second part the receipt whereof is hereby acknowledged has granted, bargained, sold Aliened remised released conveyed and confirmed and by these Presents does grant bargain sell, alien remise release convey and confirm unto the said party of the second part and to his heirs and Assigns forever All of the following described Lots pieces or parcels of land Situate lying and being in Ada County Idaho Territory to wit:

The North west quarter of the North east quarter of Section number of twenty three (23) in the last mentioned Section (7) in Section quarter Numbered Fourteen (14) In Township Four North of Range Two West Containing Fifty seven (57) Acres more or less

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the reversion, and reversions, remainder, and remainders rents issues and profits thereof and also all estate right title interest claim of homestead property possession claim and demand whatsoever as well in Law as in equity of the said party of the first part of in or to the said premises and every part and parcel thereof with the appurtenances To Have and To Hold all and singular the said premises together with the appurtenances unto the said party of the second part and to his heirs and Assigns forever And the said party of the first part and his heirs the said premises in the quiet and peaceable possession of the said party of the second

of the second part his heirs and assigns against the said party of the first part and his heirs and against all and every person and persons whomsoever lawfully claiming or to claim the same shall and will warrant and by these presents forever defend

In witness whereof the said party of the first part has hereunto set his hand and seal the day and year first above written

Signed Sealed and Delivered in the presence of
N. M. Hanthorn

Jacob Fowler (Seal)

Territory of Idaho } ss.
County of Ada }

On this Seventh day of February A.D. One Thousand Eight Hundred and Eighty Personally appeared before me N M Hanthorn County Recorder in and for the said Ada County, Jacob Fowler whose name is subscribed to the annexed Instrument as a party there to personally known to me to be the same person described in and who executed the said annexed Instrument as a party thereto who duly acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

In witness whereof I have hereunto set my hand and (Seal) affixed my official seal the day and year in this certificate first above written

N. M. Hanthorn
County Recorder

B.8 P.379 Recorded at the request of Adam Schindler Feb 7th A.D. 1880 at 34 min past 2 P.M.

Compared
Indexed

N. M. Hanthorn
Recorder

Luther D. Potter
To
Michael Pott

This Indenture made the 4th day of October in the year of our Lord One Thousand eight hundred and seventy nine Between Luther D. Potter of Ada County Idaho Territory the party of the first part and Michael Pott of the same County and Territory the party of the second part Witnesseth That the said party of the first part for and in consideration of the sum of Eighteen Hundred Dollars Lawful Money of the United States of America to him in hand paid by the said party of the second part the Receipt whereof is hereby acknowledged does by these Presents Grant bargain sell convey and confirm unto the said party of the second part and to his heirs and assigns forever all of the following described lots, Piece or Parcel of Land situate lying and being in the County of Ada and Territory of Idaho to wit: The west half of the north west quarter, and the Northwest quarter of the South west quarter of Section Thirteen and the Southeast quarter of the Northeast quarter of Section Twenty in Township Four North of Range Three West containing One Hundred and Sixty Acres More or Less

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining And the rents issues and profits thereof

To Have and To Hold all and singular the above mentioned and described premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever And the said party of the first part for himself his heirs executors and administrators does covenant grant bargain and agree to and with the said party of the second part his heirs and assigns that at the time of the ensealing and delivery of these presents he is well seized of the premises above conveyed of a good sure perfect absolute and indefeasible estate of inheritance in law and in fee simple and has good right full power and lawful authority to grant bargain sell and convey the same in manner and form aforesaid and that the same are free and clear from all former and other grants titles charges estates judgments taxes assessments and encumbrances of whatever kind or nature soever and the above bargained premises in the quiet and peaceable possession of the said party of the second part his heirs or assigns against all and every person or persons lawfully claiming or to claim the whole or any part thereof the said party of the first part shall and will warrant and forever defend

PID001152

And Melissa Potter of the said party of the first part has hereunto set her hand and seal the day and year first above Written

Signed Sealed and Delivered in the Presence of N. M. Hawthorn } Luther D. Potter (Seal)

Territory Of Idaho } ss.
County Of Ada }

On this Sixteenth day of October A.D. One Thousand eight-Hundred and Seventy nine personally appeared before me N. M. Hawthorn County Recorder in and for the said Ada County Luther D. Potter whose name is subscribed to the annexed Instrument as a party thereto. Personally known to me to be the same person described in and who executed the said annexed Instrument as a party thereto who duly acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned

In Witness Whereof I have hereunto set my hand and affixed my official Seal the day and year in this certificate first above Written

(Seal)

N. M. Hawthorn
County Recorder

B 4
P 286.

Recorded at the request of M. Pott October 16th 1879 at 25 min past 4 P.M.

N. M. Hawthorn
Recorder

Compared
Indexed

PID001153

Victoria Motta

To

Hamilton Davis

This Indenture made the Eighth day of October in the Year of Our Lord One Thousand eight hundred and Seventy eight Between Victoria Motta wife of John Motta of Ada County Idaho Territory the party of the first part and Hamilton Davis of the same County and Territory the Party of the second part Witnesseth That the said party of the first part for and in Consideration of the sum of Two Thousand Dollars Lawful Money of the United States of America to her in hand paid by the said party of the second part the receipt whereof is hereby acknowledged does by these Presents Grant Bargain sell Convey and Confirm unto the said party of the second part and his heirs and assigns forever All the following described Lots Pieces or Parcels of land situate lying and being in the County of Ada and Territory of Idaho to wit

The Southeast quarter of the Southwest quarter and the Southwest quarter of the Southeast quarter and the West half of the Southeast quarter of Section Seventeen (17) in Township Four North of Range Two West Containing One Hundred and Sixty Acres according to the government Survey

To Gether with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the ~~reversion remainder and remainders rents issues~~ and profits thereof

To Have and To Hold all and singular the above mentioned and described premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever and the said party of the first part and her heirs the said Premises in the quiet and peaceable possession of the said party of the Second part his heirs and Assigns against the said party of the first part and her heirs and against all and every person and persons lawfully claiming or to claim the same or any part thereof

PID001154

same Shall and will warrant and by these Presents forever Defend

In witness Whereof the said party of the first part has hereunto set her hand and Seal the day and year first above written

Signed Seald and Delivered in the Presence of C. F. Madden W. E. Child } Victoria Mott (Seal)

Territory Of Idaho County Of Ada } SS.

On this Seventh day of October One Thousand eight hundred and Seventy eight before me H. E. Prickett Judge of the second Judicial District of Idaho Territory duly Commissioned and Sworn personally Mrs Victoria Mott Wife of John G. Mott whose name is subscribed to the annexed instrument as a party thereto Personally known to me to be the individual described therein and who executed the same as acknowledged to me that she executed the said instrument freely and voluntarily for the uses and purposes therein mentioned I further certify that John G. Mott, Husband of the said Victoria Mott is not now and for more than one year last past has not been a resident of this Territory which fact has been proved to my satisfaction by the testimony of C. F. Madden and W. E. Child of said County of Ada. Witnesses by me this day sworn and examined for that purpose

In witness Whereof I have hereunto set my hand the day and year first above written

H. E. Prickett
District Judge
2nd Judicial Dist.

B. 8 Recorded at the request of Hamilton Davis Oct 8th
P. 3 1878 at 59 min past One P.M.
Enfered
Indexed

N. M. Kanthorn
Recorder

John H. Carter
To
Charles E. Carter

This Indenture made the 21st day of October in the Year of our Lord One Thousand eight hundred and Eighty Between John H Carter of Ada County Territory of Idaho 1st Party of the first part and Charles E. Carter of the same place the Party of the second part Witnesseth That the said party of the first part for and in Consideration of the sum of Eight Hundred ($800.00) Dollars Lawful Money of the United States of America to him in hand paid by the said party of the second part the receipt whereof is hereby acknowledged has granted Bargained sold and Confirmed and by these Presents does grant bargain, sell and Confirm unto the said party of the second part and to his heirs and assigns forever. All those pieces or parcels of land Situate lying and being in Ada County Territory of Idaho And more particularly described as follows to wit:

The N.W.¼ of N.E.¼ Sec. 22 and Lot 7 sec. 15 Township Four (4) N. of R. Two (2) West Containing Ninety 9/100 Acres

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in any wise appertaining and the reversion and reversions remainder and remainders rents issues and profits thereof

To Have and To Hold all and singular the said premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever; and the said party of the first part and his heirs the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns against the said party of the first part and his heirs and against all and every person and persons whomsoever Lawfully claiming or to claim the same shall and will Warrant and by these Presents forever Defend

In witness whereof the said party of the first part has hereunto set his hand and seal the day and year first above written

Signed Sealed & Delivered in the presence of
C. J. Carter

John H. Carter (Seal)

B 8
P 590

Territory Of Idaho }
County Of Ada } ss.

On This Twenty-first day of Oct A.D. 1880 Personally appeared before me E. J. Curtis Probate Judge in and for said County of Ada John H. Carter who is personally known to me to be the identical person described in and who executed the foregoing instrument of writing and acknowledged to me that he had executed the same freely and voluntarily and for the uses and purposes therein mentioned.

In Witness Whereof I have hereunto set my hand (Seal) and affixed the Seal of the Probate Court the day and year in this certificate above written.

E. J. Curtis
Probate Judge

B 8 P 540 Recorded at the request of Chas. E. Carter Nov 24th 1880 at 20 min past 9 A. M.

Compared
Indexed

W. M. Hamilton
Recorder

PID001157

Marion E. Mason
To
L. F. Cook

This Indenture made the 24th day of April In the year of Our Lord One Thousand Eight Hundred And Seventy nine between Marion E Mason of Ada County Idaho Territory Party of the first part and L. F. Cook of the same County and Territory the party of the second part. Witnesseth That The said party of the first part for and in consideration of the sum of Two Thousand ($2000.00) Dollars Lawful Money of the United States of America to me in hand paid by the said party of the second part the receipt whereof is hereby acknowledged have Granted bargained Sold Aliened remised released Conveyed and Confirmed And by these Presents do grant bargain sell Alien remise release convey and confirm unto the said party of the second part his heirs and assigns forever. All the following dets Pieces or Parcels of Land situate lying And being within the County of Ada and Territory of Idaho, to wit:

The east Half of the North west quarter And the Northeast quarter of the Southwest quarter And the Lot numbered Three of section Eighteen In Township Four North of Range two west And Lots numbered One and Two of Section eighteen In Township Four North of Range Two West. And the Southeast quarter of the Northeast quarter and the Northeast quarter of the Southeast quarter of Section Thirteen in Township Four North of Range Three west.

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the reversion and reversions remainders rents issues and profits thereof and also all estate right title interest property possession Claim and demand Whatsoever as well in law as in equity of the said party of the first part of in or to the said premises and every part and Piece thereof with the appurtenances

B.8
P.345

To Have And To Hold all and Singular the said premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever And the said party of the first part and his heirs the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns against the said party of the first part and his heirs and against any and all person and persons whomsoever lawfully claiming or to claim the same shall and will Warrant and by these Presents forever Defend.

In Witness Whereof the said party of the first part has hereunto set his hand and Seal the day and year first above written

Signed Sealed And delivered in the Presence of
T. J. Curtis
} Marion E Mason (Seal)

Territory Of Idaho } S.S.
County Of Ada }

On This 24th day of April A.D. One Thousand eight Hundred and Seventy nine personally appeared before me T. J. Curtis Probate Judge in and for said County Marion E Mason who is Personally known to Me to be the Identical person described in and who executed the foregoing instrument of writing and acknowledged to me that he had executed the same freely and voluntarily And for the uses and purposes therein Mentioned

In Witness Whereof I have hereunto set my hand and affixed my official Seal the day and year in this certificate first above written

B.8 (Seal) T. J. Curtis
P. 385 Probate Judge

Recorded at the request of L. F. Cook Feb 11th A.D. 1880 at 12 min past 10 A.D.

N. M. Hanthorn
Recorder

J. H. Carter
To
L. M. Ford

This Indenture made the Tenth day of October in the year Our Lord One Thousand Eight hundred and Eighty two Between John H. Carter of Ada County Territory of Idaho the Party of the first part and George M. Ford the Party of the second part Witnesseth that the said party of the first part for and in consideration of the sum of Fifteen Hundred Dollars Lawful Money of the United States of America to him in hand paid by the said party of the second part the receipt whereof is hereby acknowledged has granted bargained sold and confirmed and by these Presents does grant bargain sell and Confirm unto the said party of the second part and to his heirs and assigns forever all of the following described piece or parcel of land situate lying and being in Ada County Territory of Idaho and more particularly described as follows towit:

The North West quarter of Northeast quarter and the Southwest Quarter of Northeast quarter of Section No Twenty two (22) in Township Four (4) North of R. Two (2) west. Also Lot No. Seven (7) Section Fifteen (15) Township Four (4) N. of R. Two (2) west containing One Hundred and Thirty (130) acres and Ninety hundredths 90/100 of an Acre more or less

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in any wise appertaining and the reversion reversions remainder and remainders rents issues and profits thereof and also all estate right title and claim and demand whatsoever as well in law as in equity of the said party of the first part of in or to the said premises and every part and parcel thereof with the appurtenances To Have and To Hold all and singular the said premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever

PID001160

the said party of the first part and his heirs against all and every person and persons whomsoever lawfully Claiming or to claim the same shall and will Warrant And by these Presents forever Defend

In Witness Whereof the said party of the first part has hereunto set his hand and seal the day and year first above written

Signed Sealed and Delivered
In the Presence of D. Heron
Witness His Mark W. Schindler

John H. his mark Carter (Seal)

Territory Of Idaho
County Of Ada } SS.

On this Tenth day of October A.D. 1882 personally appeared before me D. Heron County Recorder in and for said County of Ada John H. Carter who is personally known to me to be the identical person described in and who executed the foregoing Instrument of writing and acknowledged to me that he had executed the same freely and Voluntarily and for the uses and purposes therein Mentioned

(Seal) In Witness Whereof I have hereunto set my hand and affixed my official Seal the day and year in this certificate above written

D Heron
County Recorder

B9 P350 Recorded at the request of George W. Ford Oct 10 1882 at 10 min past 4 P.M.

D Heron
Recorder

Compared
Indexed

PID001161

J. H. Carter
To
C. E. Carter

This Indenture made the Tenth day of October In the year of our Lord One Thousand eight Hundred and Eighty two Between John H. Carter of Ada County I.T. of the first part and Charles E. Carter of the same place the party of the second part Witnesseth That the said party of the first part for and in consideration of the sum of Five Hundred Dollars Lawful Money of the United States of America to him in hand paid by the said party of the second part the receipt whereof is hereby acknowledged has granted bargained sold and confirmed and by these presents does grant bargain sell and confirm unto the said party of the second part and to his heirs and assigns forever all of the following described piece or parcel of land situate lying and being in Ada County Territory of Idaho and more particularly described as follows to wit

The Southwest quarter of Northwest quarter of section No Twenty three (23) in Township No Four (4) North of Range No. Two (2) West containing forty (40) acres of land

Together with all and singular the tenements hereditaments and appurtenances there unto belonging or in anywise appertaining and the reversion and reversions remainders and remainders rents issues and profits thereof and also all the estate right title interest of homestead property possession claim and demand whatsoever as well in law as in equity of the said party of the first part of in or to the said premises and every part and parcel thereof with the appurtenances

To Have and To Hold all and singular the said premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever and the said party of the first part and his heirs the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns against the said party of the first part and his heirs against all and every person and persons whomsoever lawfully claiming or to claim the same shall and will warrant and by these presents forever Defend

In Witness Whereof the said party of the first part has hereunto set his hand and Seal the day and year first above written

John H. his X mark Carter (Seal)

Signed Sealed and Delivered in the Presence of
Witness his mark
A Schindler
D Heron

Territory of Idaho } SS.
County of Ada }

On this Tenth day of October AD 1882 Personally Appeared before me D Heron County Recorder in and for said County of Ada John H. Carter who is personally known to me to be the identical person described in and who executed the foregoing Instrument of writing and acknowledged to me that he had executed the same freely and voluntarily and for the uses and purposes therein mentioned

(Seal) In Witness Whereof I have hereunto set my hand and Affixed my official Seal the day and year first above written

D. Heron
County Recorder

B 9 P 348 Recorded at the request of Charles E. Carter Oct 10 1882 at 40 min past 4 P.M.

Compared
Indexed

D Heron
Recorder

Adam Schindler
To
J. K. Howard

This Indenture made the Twenty sixth day of October in the year of our Lord One Thousand Eight Hundred and Eighty two Between Adam Schindler of Ada County Idaho Territory the Party of the first part and Joseph K. Howard of the same place the Party of the second part Witnesseth That the said party of the first part for and in consideration of the sum of Three Thousand Dollars Lawful Money of the United States of America to him in hand paid by the said party of the second part the receipt whereof is hereby acknowledged has granted bargained sold and confirmed and by these Presents does grant bargain sell and confirm unto the said party of the second part and to his heirs and Assigns forever all of the following Lots pieces and parcels of land situate lying and being in Ada County Idaho Territory described as follows to wit:

The North half of the Northeast quarter of section Twenty three (23) and the lots numbered Seven (7) and Eight (8) of section Fourteen in Township Four North of Range Two West and also the South half 1/2 of North E. 1/4 of section Twenty three (23) Township Four (4) N of R. 2 west containing in all Two Hundred acres and Forty four hundred the of an acre

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the reversion and reversions remainder and remainders rents issues and profits thereof and also all estate right title interest of Homestead property possession claim and demand whatsoever as well in law as in equity of the said party of the first part of in or to the said premises and every part and parcel thereof with the appurtenances To Have and To Hold all and singular the said premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever and the said party of the first part and his heirs the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns against the said party of the first part and his heirs against all and every person or persons [illegible] lawfully claiming or to claim the same [illegible]

PID001164

Warrant. And by these Presents forever Defend
the Premises. In Witness Whereof the said party of the
first part has hereunto set his hand and Seal the day and
Year first above written
Signed Sealed & Delivered
in the Presence of
D. Heron

Adam Schindler (Seal)

Territory of Idaho } S.S.
County of Ada }

On this 26th day of October A.D. 1882
Personally appeared before me D Heron County Recorder in
and for said County of Ada Adam Schindler who is
personally known to me to be the identical person
described in and who executed the foregoing instrument
of writing and acknowledged to me that he had executed
the same freely and voluntarily and for the uses
and purposes therein mentioned

In Witness Whereof I have hereunto set
(Seal) my hand ~~and affixed my official Seal~~
the day and year in this certificate first
above written

D. Heron
County Recorder

139 Recorded at the Request of Jos. K Howard
P 373 October 26th 1882 at 10 min past 9 a.m.

D. Heron
Recorder

Compared
Indexed

PID001165

John O Levander & wife
To
Adam Schindler

This Indenture Made the Fourth day of October One thousand eight hundred and seventy two Between John O Levander and Sarah E Levander his wife all of Ada County I.T. the parties of the first part and Adam Schindler of Ada County I.T. the party of the second part Witnesseth that the said parties of the first part for and in consideration of the sum of six hundred and fifty Dollars gold coin of the U.S. to them in hand paid by the said party of the second part at or before the ensealing and delivery of these presents the receipt whereof is hereby acknowledged. Have granted. bargained. sold. aliened. remised. released. conveyed and confirmed. and by these presents do grant. bargain. sell. alien. remise. release. convey and confirm unto the said party of the second part and to his heirs and assigns forever. All right. title. claim and interest in and to that certain tract of land. lying and being in Ada County Idaho Territory. and described as follows to wit:

The West one half (1/2) and South East one fourth (1/4) of the North East one fourth (1/4) of Section numbered (13) thirteen in Township numbered (4) four North of Range numbered (4) four West containing One hundred and twenty (120) acres more or less, being the same tract of land entered by John O Levander one of the parties of the first part in the United States District land Office at Boise City I.T. on the (3rd) Third day of October AD 1872. Patent now for the same being by these presents assigned to the party of the second part Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in any wise appertaining and the revision and reversions remainder and remainders rents issues and profits thereof. And also all the estate right title interest [illegible] demand whatsoever [illegible] the said parties of the first part [illegible]

with the appurtenances.

To have and To Hold all and singular the above mentioned and described premises, together with the appurtenances, unto the said parties of the second part, his heirs and assigns forever. And the said John O. Levander and Sarah E. Levander, and their heirs the said premises, in quiet and peaceable possession of the said parties of the second part, his heirs and assigns against the said parties of the first part, heirs and against all and every person and persons whomsoever lawfully claiming or to claim the same, shall and will Warrant and by these presents forever defend.

In Witness Whereof, the said parties of the first part, have hereunto set their hands and seals the day and year first above written.

Signed, sealed and delivered in presence of
W W Gliddon

John O. Levander [seal]
Sarah E. Levander [seal]

Territory of Idaho. } ss.
County of Ada. }

Be it this the fifth day October A.D. One Thousand Eight hundred and Ninety Two, before me W W Gliddon a Justice of the Peace in and for said Ada County duly commissioned and sworn, personally appeared the within named John O Levander and Sarah E Levander his wife whose names are subscribed to the foregoing instrument as parties thereto, personally known to me to be the individuals described in and who executed the said foregoing instrument and severally acknowledged to me that they executed the same freely and voluntarily, and for the uses and purposes therein mentioned, and I further certify that the said Sarah E Levander wife of the said John O Levander upon being made known unto the contents of the within instrument and being examined by me separate and apart from her said husband, acknowledged to me that she signed the within instrument freely and voluntarily and without fear or compulsion of her said husband. In Witness Whereof I have hereunto set my hand and affixed my official seal the day and year last above written.

W W Gliddon
Justice of the Peace

PID001167

Recorded at the Request of Adam Schindler
March 8th A.D. 1873. at 30 Minutes past 2 o'clock
P.M.

Compared N.M. Hawthorn
Indexed Recorder

From B-4-P-701.

H. B. Moore
To
G. W. Wootan

This Indenture Made and entered ~~and entered~~ into this 31st day of October A.D. 1885 between H.B. Moore the party of the first part and G.W. Wootan the party of the second part Witnesseth

That that the said party of the first part for and in consideration of the sum of Five Hundred and Fifty Dollars lawful money of the United States to him in hand paid by the said party of the second part the receipt whereof is hereby acknowledged has granted bargained sold and conveyed and by these presents does grant bargain sell and convey unto the said party of the second part all that certain lot piece or parcel of land in Ada County Idaho Territory and more particularly described as follows to wit:

The South West quarter of the North West quarter of section eleven (11) in Township Four South of Range Four West of Boise Meridian Containing Forty acres.

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the reversion and reversions, remainder and remainders rents issues and profits thereof. To have and to hold all and singular the above granted and described premises with the appurtenances unto the said party of the second part his heirs and assigns forever.

And the said party of the first part and his heirs the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns against the said party of the first part and his heirs and against all and every person and persons whomsoever lawfully claiming or to claim the same shall and will Warrant and by these presents forever defend.

In Witness Whereof the said party of the first part has hereunto set his hand and seal the day and year first above written.

Signed sealed and delivered in the presence of
Wm Ogden Orr
Chas. H. Reed

H.B. Moore (seal)

Territory of Idaho
County of Ada } s.s.

On this Thirty first day of October A.D. One thousand eight hundred and eighty five, personally appeared before me Charles H. Reed a Notary Public in and for the County of Ada H.B. Moore, whose name is subscribed to the annexed instrument as a party thereto, and the said H.B. Moore duly acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

In Witness Whereof I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(seal)

Chas. H. Reed,
Notary Public

Book 11 Page 410 Recorded at the request of G.W. Wootan January 18th 1886 at 30 min past 5 P.M.

Compared

C.J. McConnel
Recorder.

H. H. Miller

To

W. E. Mosby & G. W. Wootan

This Indenture made the First day of May in the year of our Lord One thousand eight hundred and eighty-four Between H. H. Miller of Caldwell Ada County Idaho party of the first part and W. E. Mosby & G. W. Wootan of the aforesaid County and Territory the parties of the second part.

Witnesseth that the said party of the first part for and in consideration of the sum of One thousand Dollars lawful money of the United States of America to him in hand paid by the said parties of the second part the receipt whereof is hereby acknowledged do by these presents demise release and forever Quit claim unto the said parties of the second part and to their heirs and assigns all that certain lot piece or parcel of land situated in the said Ada County Territory of Idaho and bounded and particularly described as follows to wit: a certain piece or parcel of ground known as lot Four (4) Block Three (3) Situated in the town of Caldwell Ada County Idaho Territory according to the original Plat of the town of Caldwell now on file, and with all improvements thereon.

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging, or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents issues and profits thereof.

To have and to hold all and singular the said premises together with the appurtenances unto the said parties of the second part and to their heirs and assigns forever.

In Witness Whereof the said party of the first part has hereunto set his hand and seal the day and year first above written

Signed sealed and Delivered in the presence of Will A. Gilmore } H. H. Miller (Seal)

Book 11
Page 144
Compared

Territory of Idaho } S.S.
County of Ada }

On this first day of May 1884 personally appeared before me T. T. Davidson a Notary Public in and for the said County of Ada H. H. Miller known to me to be the person described in and who executed the foregoing instrument and who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

In Witness Whereof I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(seal)

T. T. Davidson
Notary Public

Book 11
Page 144
Compared

Recorded at the request of W. E. Mosby July 10th 1885 at 30 min past 3 P.M.

C. S. McConnell
Recorder

The Idaho & Oregon Land Improvement Company

To

Geo. W. Worton

This Indenture made the thirtieth day of November in the year of our Lord one thousand eight hundred and eighty five between The Idaho and Oregon Land Improvement Company a corporation organized under the laws of the State of Colorado party of the first part and Geo. W. Worton of Ada county Idaho Territory the party of the second part.

Witnesseth that the said party of the first part for and in consideration of the sum of Fifty Dollars lawful money of the United States of America to it in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged does by these presents grant bargain, sell convey and confirm unto the said party of the second part and to his heirs and assigns forever

All that certain lot piece or parcel of land situate, lying and being in the town of Caldwell county of Ada and Territory of Idaho and bounded and particularly described as follows to-wit; Lot number three (3) in Block number fourteen (14) as designated in the first official plat of said town filed in the office of the Recorder of Ada county aforesaid

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof. To have and to hold all and singular the said premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever. And the said party of the first part and its successors and assigns the quiet premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns against the said party of the first part & its successors and assigns against all and every person and persons whomsoever lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In Witness whereof the said party of the first part has caused these presents to be subscribed by its President and Secretary the day & year first above written.

The Idaho and Oregon Land Improvement Co.

Deed Book 13 Page 534

Copy

Signed sealed and delivered in the presence of D. W. Ludlow
W. M. Leeper

By
A. Caldwell President
D. F. Taylor Secretary

(Seal)

State of Kansas
Leavenworth County } D.D.

On this 4th day of February A.D. 1886 personally appeared before me a Notary Public in and for said county A. Caldwell who is personally known to me to be the same person whose name is subscribed to the within instrument as President of The Idaho and Oregon Land Improvement Company and D. F. Taylor personally known to me to be the same person whose name is subscribed to the within instrument as the Secretary of said company. And the said A. Caldwell and D. F. Taylor duly acknowledged to me that they subscribed the name of The Idaho and Oregon Land Improvement Company thereto as Principal and their own names as President and Secretary respectively and that the said The Idaho and Oregon Land Improvement Company executed the said instrument by the hands of said A. Caldwell and D. F. Taylor as their free act and deed and for the uses and purposes therein mentioned.

In Witness whereof I have hereunto set my hand and seal the day and year above written.

W. M. Leeper Commission expires March 1887

(Seal) Notary Public

Deed Book 13 Page 534

Recorded at request of J. M. Martin Sept 24th 1888 at 15 minutes past 6 P.M.

C. D. McConnel
Recorder

Compared

Edward J. Smith et ux
To
Geo. W. Wooten

This Indenture made the 14th day of September in the year of our Lord one thousand eight hundred and eighty eight between Edward J. Smith and Ailey J. Smith his wife of the town of Caldwell county of Ada Territory of Idaho the parties of the first part and George W. Wooten the party of the second part.

Witnesseth; that the said parties of the first part for and in consideration of Five Hundred Dollars lawful money of the United States of America to him in hand paid by the said party of the second part the receipt whereof is hereby acknowledged has granted bargained and sold and by these presents does grant, bargain sell convey and confirm unto the said party of the second part and to his heirs and assigns forever.

All the undivided one half (1/2) interest of in and to those certain lots, pieces or parcels of land, situate lying and being in the county of Ada and Territory of Idaho and particularly described as follows to wit;

Fractional lots number Twenty (20) Twenty one (21) Twenty two (22) Twenty three (23) & Twenty four (24) in block number Ten (10) in the town of Caldwell, according to the official plat of said town as filed in the office of the Recorder of said Ada county and being the same property which was conveyed to A. A. Holcomb and Hope Trainor by Anderson Cox by deed dated the thirty first day of July 1886 subject never the less by a certain mortgage made by D. H. Duncan to David Heron for $500.00/100

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the reversion and reversions remainder and remainders, rents, issues and profits thereof and also all estate, right, title, interest in and to the said property, possession claim and demand whatsoever as well in law as in equity of the said parties of the first part of in or to the said premises and every part and parcel thereof with the appurtenances. To have and to hold all and singular the above mentioned and described

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Book 13
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premises together with the appurtenances unto the party of the second part and to his heirs and assigns forever. And the said parties of the first part and their heirs the said premises in the quiet and peaceable possession of the said party of the second part and his heirs and assigns against the said parties of the first part and their heirs and against any and all person and persons ~~[illegible]~~ lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In Witness whereof the said parties of the first part have hereunto set their hands and seals the day and year first above written.

Signed sealed and delivered in the presence of Christopher Fahy, Swain Beatty } Edward J. Smith (Seal) Alcy J. Smith (Seal)

Territory of Idaho } S. D.
County of Ada }

On this 14th day of September A. D. 1888 personally appeared before me Swain Beatty a Justice of the Peace in and for the county of Ada Edward J. Smith and Alcy J. Smith his wife whose names are subscribed to the annexed instrument as parties thereto, personally known to me to be the same persons described in and who executed the said annexed instrument as parties thereto, who each of them duly acknowledged to me that they each of them, respectively executed the same freely and voluntarily and for the uses and purposes therein mentioned. And the said Alcy J. Smith wife of the said Edward J. Smith having been by me first made acquainted with the contents of said instrument acknowledged to me on examination apart from and without the hearing of her husband that she executed the same freely and voluntarily without fear or compulsion or undue influence of her husband and that she does not wish to retract the execution of the same.

In Witness whereof I have hereunto set my hand the day and year in this certificate first above written.

Swain Beatty
Justice of the Peace

Recorded at request of
Swain Beatty Oct 3rd A.D. 1888 at 4 P.M.
C. D. McCarthy
Recorder

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Wed
Book 13
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PID001176

Benj. F. Pearce et ux

To

Geo. W. Wooten

This Indenture made the 25th day of September in the year of our Lord one thousand eight hundred and eighty eight between Benjamin F. Pearce and Hope Pearce his wife of the town of Caldwell county of Ada and Territory of Idaho the parties of the first part and George W. Wooten the party of the second part.

Witnesseth: That the said party of the first part. in consideration of the sum of Five Hundred Dollars lawful money of the United States of America to them in hand paid by the said party of the second part the receipt whereof is hereby acknowledged. does by these presents, grant, bargain sell and convey unto the said party of the second first and to his heirs and assigns forever

All those certain lots, pieces and parcels of land situate lying and being in the county of Ada and Territory of Idaho and particularly described as follows to wit; Fractional lots number Twenty (20) Twenty one (21) Twenty two (22) Twenty three (23) and Twenty four (24) in Block number Ten (10) in the town of Caldwell according to the official plat of said town as filed in the office of the Recorder of said Ada county.

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the rents, issues and profits thereof. To have and to hold all and singular the above mentioned and described premises together with the appurtenances unto the said party of the second part and to his heirs and assigns forever. And the said parties of the first part and their heirs the said premises in the quiet and peaceable possession of the said party of the second part, their heirs and assigns against the said party of the first part and his heirs and against all and every person and persons whomsoever lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In Witness whereof the said parties of the first part has hereunto set their hands and seals the day

Deed Book 13 Page 456

PID001177

Signed sealed and delivered in the presence of John Logne, Swain Beatty } B. F. Fraser (Seal) Hope Fraser (Seal)

Territory of Idaho }
County of Ada } S. S.

On this — day of — A.D. 188—
before me Swain Beatty Justice of the Peace in and for said county and Territory duly qualified and commissioned personally appeared Benjamin F. Fraser and Hope Fraser his wife whose names are subscribed to the within instrument, personally known to me to be the persons whose names are subscribed to the within instrument and who each of them severally acknowledged to me that they executed the same. And the said Hope Fraser described as a married woman and upon an examination without the hearing of her husband having been by me first made acquainted with the content of said instrument thereupon acknowledged to me that she executed the same and that she does not wish to retract such execution.

In Witness whereof I have hereunto set my hand the day and year in this certificate first above written

Swain Beatty
Justice of the Peace

Recorded at request of Swain Beatty
Oct 2 A.D. 1888 at 1-30 o'clock P.M.
C. B. McConnel
Recorder
By W. A. Smith Dep

Deed
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Compared

PID001178

Sophia Ball
To
Amza L Ball

This Indenture Made the 31st day of March in the year of our Lord one thousand eight hundred and ninety two (1892) Between Sophia Ball of Ada County Idaho the Party of the first Part and Amza L Ball of Ada County State of Idaho the Party of the Second Part

Witnesseth That the said party of the first part for and in consideration of the sum of One (1) Dollar lawful money of the United States of America to her in hand paid by the said party of the second part the receipt whereof is hereby acknowledged does by these presents remise release and forever Quit Claim unto the said party of the second part and to his heirs and assigns all those certain lots pieces or parcels of land situated in the said County of Ada State of Idaho and bounded and particularly described as follows to wit:

North East quarter (1/4) of the South East quarter (1/4) of Section Twenty two (22) in Township Four (4) North of Range Two (2) West of the Boise Meridian containing 40 acres

This deed is given to correct deed dated Dec 12th 1888 from said Amza L Ball to Sophia Ball and recorded in the Recorders Office Ada Co Idaho in Book 13 of Deeds at page 729 at the time of said transfer it having been the intention to convey SE 1/4 of NE 1/4 of Sec 22 Twp 4 N R 2 W but by error the above described property was conveyed

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in anywise appertaining and the reversion and reversions remainder and remainders rents issues and profits thereof

To Have and To Hold all and singular the said premises together with the appurtenances [illegible] the said party of the [illegible]

Deed Book 21 P 352 Compared

part and to his heirs and assigns forever

In Witness Whereof The said party of the first part has hereunto set her hand and seal the day and year first above written

Sophia Ball Seal

Signed Sealed and Delivered in the Presence of

S G King

J H Morgan

State of Idaho }
County of Ada } ss

On this 31st day of March in the year 1892 before me Sherman G King Recorder in and for said County personally appeared Sophia Ball wife of Amza L Ball known to me to be the person whose name is subscribed to the within instrument described as a married woman and upon an examination without the hearing of her husband I made her acquainted with the contents of the instrument and thereupon she acknowledged to me that she executed the same and that she does not wish to retract such execution

In Witness Whereof I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written

Sherman G King
Seal Recorder

Recorded at the request of Amza L Ball May 10 1892 at 8 A.M.

Sherman G King
Recorder

Deed Book 21 P. 352

Compared

By Jas H Morgan
Deputy

Robert White et ux.
To
David P Dodd

This Indenture Made the 31st day of October in the year of our Lord one thousand eight hundred and ninety. Between Robert White and Mary J. White his wife both of Ada County State of Idaho the parties of the first part and David P Dodd of Ada County aforesaid the party of the second part Witnesseth That the said parties of the first part for and in consideration of one Dollars lawful money of the United States to them in hand paid by the said party of the second part the receipt whereof is hereby acknowledged, ha granted bargained and sold and by these presents do grant bargain sell convey and confirm unto the said party of the second part and to his heirs and assigns forever all those certain lots pieces or parcels of land situate lying and being in Ada County Idaho and particularly described as follows

The South half of the South East Quarter and Lot numbered Eight of Section Sixteen and the North East Quarter of the North East Quarter of Section Twenty one and Lots Five and Six of Section Fifteen all in Township Four North of Range Two West

Together with all and singular the tenements hereditaments and appurtenances thereunto belonging or in any wise appertaining and the reversion and reversions remainder and remainders rents issues and profits thereof and also all the estate right title interest in and to the said property possession claim and demand whatsoever as well in law as in equity of the said parties of the first part of in or to the said premises and every part and parcel thereof with the appurtenances

To have and to hold all and singular the above mentioned and described premises together with the appurtenances unto the party of the second part and to his heirs and assigns forever and the said parties of the first part and their heirs the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns against the said parties of the first

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Book 22
Page 575

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part and their heirs and against all and every person and persons whomsoever lawfully claiming or to claim the same shall and will Warrant and by these presents forever Defend

In Witness Whereof The said parties of the first part have hereunto set their hands and seals the day and year first above written

Robert his x mark White (Seal)
Mary J. White (Seal)

Signed Sealed and Delivered in the Presence of Chas H. Reed
H. P. Madden

State of Idaho
County of Ada } ss

On this 31st day of October in the year 1890 before me Charles H Reed a Notary Public in and for said County personally appeared Robert White known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same and on this 31st day of October in the year 1890 before me the officer above described personally appeared Mary J. White known to me to be the person whose name is subscribed to the within instrument described as a married woman and upon an examination without the hearing of her husband I made her acquainted with the contents of the instrument and thereupon she acknowledged to me that she executed the same and that she does not wish to retract such execution

In Witness Whereof I have hereunto set my hand and affixed my Notarial seal the day and year in this Certificate first above written

Chas H. Reed
Notary Public

< Seal >

Deeds
Book 22
Page 575

Recorded at request of Mrs White
Jany 7. 1893 at 9.35 am

Sherman G. King
Recorder

By Jas H Morgan
Deputy

Warranty Deed

Myra A. Smith
and
Chester Smith
-to-
Robert White.

This Deed, Made this 11th day of October in the year of our Lord One Thousand Eight Hundred and Ninety Five between Myra A. Smith and Chester Smith her husband of Casper, County of Natrona, State of Wyoming parties of the first part, and Robert White of Casper County of Natrona State of Wyoming party of the second part,

Witnesseth, that the said parties of the first part, for and in consideration of the sum of Seven Hundred and no/100 (700) Dollars to them in hand paid by the said party of the second the receipt whereof is hereby confessed and acknowledged, have granted, bargained sold, and conveyed, and by these presents do grant, bargain, sell and convey unto said party of second part, and unto his heirs and assigns forever, all that piece or parcel of land situate lying and being in Canyon County, State of Idaho, and more particularly known and described as follows to wit:

Commencing at the North West (NW) corner of the South West one fourth (SW 4) of Section Twenty one (21) Township Three (3) North of Range Two (2) West of the Boise Meridian, running thence East Eleven hundred and fifty five (1155) feet, thence South Thirteen hundred and twenty (1320) feet, thence West Eleven hundred and fifty five (1155) feet, thence North Thirteen hundred and twenty (1320) feet to the North West corner of above mentioned tract of land and the place of beginning, containing Thirty five (35) acres more or less, excepting however a reserve of the space of Twenty (20) feet from East to West of aforesaid tract and taken from the South side of said tract for a road

To Have and to Hold the said above described premises unto the said party of the second part his heirs and assigns forever.
And the said parties of the first part for themselves their heirs, executors and administrators, do covenant and agree, to and with the said party of the second part his heirs and assigns, that they are lawfully seized of the premises aforesaid, and that said premises and every part thereof are free and clear of and from any and all liens, incumbrances, trusts and taxes except a certain Mortgage to H. A. Partridge for the sum of Two Hundred and Seventy-five (275) Dollars.
And the said parties of the first part, their heirs, executors and administrators, will and shall forever warrant and defend the said premises against all lawful claims and demands whatsoever.
And the said Myria A. Smith wife of the said Chester Smith, upon the consideration aforesaid, does hereby release and forever quit-claim unto said party of the second part, his heirs and assigns, all her rights of dower and homestead in and to the above granted premises.
In Witness Whereof, the said part of the first part ha hereunto set their hands and seals the day and year first above written

Signed, Sealed and Delivered in presence of
Marion P. Wheeler

Myra A. Smith
Chester Smith

State of Wyoming } ss.
County of Natrona }

I M P Wheeler a Notary Public in and for said county in the State aforesaid do hereby certify that said

DEED.

John Young
Et ux

TO

Charles F. Madden

This Indenture, made this Seventeenth day of December in the year of our Lord one thousand eight hundred and ninety eight between John Young & Margaret Young his wife of Nampa County of Canyon State of Idaho the parties of the first part, and Charles F. Madden of Caldwell County of Canyon State of Idaho the party of the second part,

WITNESSETH, that the said parties of the first part, for and in consideration of the sum of One $ DOLLARS, lawful money of the United States of America, to them in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have GRANTED, BARGAINED and SOLD, and by these presents do GRANT, BARGAIN, SELL, CONVEY and CONFIRM unto the said party of the second part, and to his heirs and assigns forever, all the following described real estate situated in Canyon County, State of Idaho, to-wit:

All of Blocks numbered Fifteen (15) & Nineteen (19) of Youngs Addition to the Town of Nampa as shown on the official plat of said Addition now on file in the Recorders office of Canyon County, Idaho.

$12.00 J. R.
J. Y.
12-17-98

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all estate, right, title and interest in and to the said property, as well in law as in equity, of the said parties of the first part:

TO HAVE AND TO HOLD, all and singular, the above mentioned and described premises, together with the appurtenances, unto the party of the second part, and to his heirs and assigns forever. And the said parties of the first part, and their heirs, the said premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns, against the said parties of the first part, and their heirs and against all and every person and persons whomsoever, lawfully claiming or to claim the same shall and will WARRANT and by these presents forever DEFEND.

IN WITNESS WHEREOF, the said parties of the first part have hereunto set their hands and seals the day and year first above written.

Signed, sealed and delivered in presence of
Frank Estabrook

John Young (SEAL)
Margaret Young (SEAL)
(SEAL)
(SEAL)

STATE OF IDAHO,
County of Canyon } ss.

On this 17 day of December ~~in the year~~ 1898, before me, Frank Estabrook a Notary Public in and for said County, personally appeared John Young known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same, and on this 17 day of December ~~in the year~~ 1898, before me, the officer above described, personally appeared Margaret Young known to me to be the person whose name is subscribed to the within instrument, described as a married woman, and upon an examination without the hearing of her husband, I made her acquainted with the contents of the instrument, and thereupon she acknowledged to me that she executed the same, and that she does not wish to retract such execution.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Seal

Frank Estabrook
Notary Public.

STATE OF IDAHO,
County of Canyon } ss.

I hereby certify that this instrument was filed for record at the request of R. S. Madden at 2:05 o'clock P.M., this 20th day of December A.D. 1898.

Fees $1.50

W. C. Dunlap Ex-Officio Recorder
By [illegible] Dunlap Deputy

WARRANTY DEED.

Charles Look

To

Thomas Wheatley

THIS INDENTURE, Made this 4th day of March in the year of our Lord one thousand eight hundred and ninety-nine, between Charles Lock, an unmarried man of Nampa, County of Canyon, State of Idaho, the party of the first part, and Thomas Wheatley of Nampa, County of Canyon, State of Idaho, the party of the second part;

WITNESSETH, That the said party of the first part, for and in consideration of the sum of Fifty Dollars lawful money of the United States of America, to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have Granted, Bargained and sold, and by these presents does grant, bargain, sell convey and confirm unto the said party of the second part, and to his heirs and assigns forever, all the following described real estate, situated in Canyon County, State of Idaho, to-wit:

All that part of the South-east quarter of the South-west quarter of Section Twenty seven, Township Four North of Range Two West of the Boise Meridian, lying and being on the North-east side of a certain irrigating ditch, bounded and described as follows;

Begining at the point on the East line of the said North-east quarter of the South west quarter of Sec. Twenty-seven, crosses the irrigating ditch and running thence North with the East line of said tract Five Hundred and sixteen feet more or less to the North-east corner of said tract, thence west with the North line to the point where said North line intersects said irrigating ditch Six Hundred and Sixteen feet more or less thence North-east in a straight line to place of begining, containing Three and sixty five one hundredths acres more or less.

TOGETHER, With all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all estate, right, title and interest in and to the said property, as well in law as in equity, of the said party of the first part:

TO HAVE AND TO HOLD, All and singular, the above mentioned and described premises together with the appurtenances, unto the party of the second part, and to his heirs and assigns forever. And the said party of the first part, and his heirs, the said premises in the quiet and peaceable possession of the said party od the second part, his heirs and assigns, against the said party of the first part, and his heirs and against all and every person and persons whomsoever, lawfully claiming or to claim the same shall and will Warrant and by these presents forever Defend.

IN WITNESS WHEREOF, The saidparty of the first part has hereunto set his hand and seal the day and year first above written.

Signed, sealed and delivered in the presence of } Charles Look (seal)
J. A. Gould, Justice of the Peace. }

State of Idaho }
ss
County of Canyon

On this 4th day of March in the year 1899 before me J. A. Gould, a Justice of the Peace in and for said County, personally appeared Charles Look known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same,

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

J. A. Gould
Justice of the Peace in and for
Nampa Precinct Canyon County Idaho.

State of Idaho }
ss
County of Canyon }

I hereby certify that this instrument was filed for record at the request of Thomas Wheatley at 10 minutes past 1 o'clock P. M., this 9th day of January 1900.

Edgar Meek
Ex-officio Recorder
By J. P. Johnson, Deputy

PID001187

This Indenture, Made this 8d day of May, in the year of our Lord one thousand nine hundred and two, between Charles Cook, (unmarried) of Nampa County of Canyon State of Idaho, party of the first part, and Thomas Wheatley of Nampa County of Canyon State of Idaho, the party of the second part:

Witnesseth, That the said party of the first part, for and in consideration of the sum of Fifty DOLLARS, lawful money of the United States of America, to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained and sold, and by these presents does grant, bargain, sell, convey and confirm unto the said party of the second part, and to his heirs and assigns forever, all the following described real estate situated in Canyon County, State of Idaho, to-wit:

All that part of the southeast quarter (S.E. 1/4) of the southwest quarter (S.W. 1/4) of Section Twenty-seven (27), Township Four (4) North of Range Two (2) West of the Boise Meridian, lying and being on the Northeast side of a certain irrigating ditch, and bounded and described as follows:

Beginning at the Northeast corner of the said S.E. 1/4 of S.W. 1/4 and running thence West 616 feet to the center of said irrigating ditch; thence Southeasterly along the center of said ditch to the intersection of the East line of the of the said S.E. 1/4 of S.W. 1/4 of Sec. 27; thence North along said east line 516 feet to the point of beginning, containing 8.65 acres, more or less

This deed is given to correct that certain deed between the parties hereto, recorded in Book 22 of Deeds at Page 78 of the records of Canyon County, Idaho,

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all estate, right, title and interest in and to the said property, as well in law as in equity, of the said party of the first part:

To Have and to Hold all and singular, the above mentioned and described premises, together with the appurtenances unto the party of the second part, and to his heirs and assigns forever. And the said party of the first part, and his heirs, the said premises in the quiet and peaceable possession of the said party of the second part his heirs and assigns, against the said party of the first part, and his heirs, and against all and every person and persons whomsoever, lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In Witness Whereof, The said party of the first part has hereunto set his hand and seal the day and year first above written.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF

Fred G. Mock

[SEAL]

Charles Cook [SEAL]

[SEAL]

[SEAL]

STATE OF IDAHO,
COUNTY OF Canyon } ss.

On this 8d day of May, in the year 1902 before me Fred G. Mock, a Notary Public, in and for said County, personally appeared Charles Cook known to me to be the identical person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same, ~~and on this day of in the year 190 before me, the officer above~~ described, personally appeared ~~known to me to be the person whose name is subscribed to the within instrument, described as a married woman; and upon an examination without the hearing of her husband, I made her acquainted with the contents of the instrument, and thereupon she acknowledged to me that she executed the same, and that she does not wish to retract such execution.~~

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in the certificate first above written.

Fred G. Mock
Notary Public

(Seal)

STATE OF IDAHO,
COUNTY OF CANYON } ss.

I hereby certify that this instrument was filed for record at the request of Fred G. Mock at 20 minutes past 9 o'clock A.M., this 15 day of May, 1902

Edgar Mick Ex-officio Recorder.

By Deputy

PID001188

This Indenture, Made this 3d day of May, in the year of our Lord one thousand nine hundred and two, between Ira Miller and Mary A. Miller of Nampa County of Canyon State of Idaho, parties of the first part, and Thomas Wheatley of Nampa County of Canyon State of Idaho, the party of the second part:

Witnesseth, That the said parties of the first part, for and in consideration of the sum of ..... DOLLARS, lawful money of the United States of America, to them in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained and sold, and by these presents do grant, bargain, sell, convey and confirm unto the said party of the second part, and to his heirs and assigns forever, all the following described real estate situated in Canyon County, State of Idaho, to-wit:

all of Block sixteen (16) in Greenbling & Fulmer addition to Nampa Canyon County Idaho as the same appears on a Plat of said addition now on file in the recorders office of said Canyon County Idaho.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all estate, right, title and interest in and to the said property, as well in law as in equity, of the said parties of the first part:

To Have and to Hold all and singular, the above mentioned and described premises, together with the appurtenances, unto the party of the second part, and to his heirs and assigns forever. And the said parties of the first part, and their heirs, the said premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns, against the said parties of the first part, and their heirs, and against all and every person and persons whomsoever, lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In Witness Whereof, The said parties of the first part have hereunto set their hands and seals the day and year first above written.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF

Fred G. Mock

[SEAL]

Ira Miller [SEAL]

Mary A. Miller [SEAL]

[SEAL]

STATE OF IDAHO,
COUNTY OF Canyon } ss.

On this 3d day of May, in the year 1902, before me Fred G. Mock, a Notary Public, in and for said County, personally appeared Ira Miller known to me to be the identical person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same, and on this 3d day of May, in the year 1902, before me, the officer above described, personally appeared Mary A. Miller known to me to be the person whose name is subscribed to the within instrument, described as a married woman; and upon an examination without the hearing of her husband, I made her acquainted with the contents of the instrument, and thereupon she acknowledged to me that she executed the same, and that she does not wish to retract such execution.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in the certificate first above written.

Fred G. Mock
Notary Public

(Seal)

STATE OF IDAHO,
COUNTY OF CANYON } ss.

I hereby certify that this instrument was filed for record at the request of Fred G. Mock at 40 minutes past 9 o'clock A. M., this 19th day of May, 1902

Edgar S. Mick Ex-officio Recorder.

By Deputy

PID001189

This Indenture, Made this 22nd day of May, in the year of our Lord one thousand nine hundred and two, between William A. Bohn and Ella M. Bohn husband and wife of Nampa County of Canyon State of Idaho, parties of the first part, and Thomas Wheatley of Nampa County of Canyon State of Idaho, the party of the second part:

Witnesseth, That the said parties of the first part, for and in consideration of the sum of Six Hundred Seventy five DOLLARS, lawful money of the United States of America, to them in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained and sold, and by these presents do grant, bargain, sell, convey and confirm unto the said party of the second part, and to his heirs and assigns forever, all the following described real estate situated in Canyon County, State of Idaho, to-wit:

all of Block One Hundred and thirty four (134) lying partly in Griffith & King addition and partly in Grumbling & Fulmer addition to Nampa Canyon County Idaho, Making in all one full block 300 feet square.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all estate, right, title and interest in and to the said property, as well in law as in equity, of the said parties of the first part:

To Have and to Hold all and singular, the above mentioned and described premises, together with the appurtenances, unto the party of the second part, and to his heirs and assigns forever. And the said parties of the first part, and their heirs, the said premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns, against the said parties of the first part, and their heirs, and against all and every person and persons whomsoever, lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In Witness Whereof, The said parties of the first part have hereunto set their hands and seals the day and year first above written.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF

Fred G. Mock
Harry Yant

[SEAL]
William A. Bohn [SEAL]
Ella M. Bohn [SEAL]
[SEAL]

STATE OF IDAHO,
COUNTY OF Canyon } ss.

On this 26 day of May, in the year 1902, before me Fred G. Mock a Notary Public, personally appeared William A. Bohn, in and for said County, known to me to be the identical person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same, and on this 26th day of May, in the year 1902, before me, the officer above described, personally appeared Ella M. Bohn known to me to be the person whose name is subscribed to the within instrument, described as a married woman; and upon an examination without the hearing of her husband, I made her acquainted with the contents of the instrument, and thereupon she acknowledged to me that she executed the same, and that she does not wish to retract such execution.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in the certificate first above written.

Fred G. Mock
(Seal) Notary Public

STATE OF IDAHO,
COUNTY OF CANYON } ss.

I hereby certify that this instrument was filed for record at the request of Thomas Wheatley at 40 minutes past 9 o'clock A.M., this 28 day of May, 1902.

Edgar Mick
Ex-officio Recorder.
By Deputy.

PID001190

This Indenture, Made this 3d day of May, in the year of our Lord one thousand nine hundred and two between Ira Miller and Mary A. Miller of Nampa County of Canyon State of Idaho, parties of the first part, and Thomas Wheatley of Nampa County of Canyon State of Idaho, the party of the second part:

Witnesseth, That the said parties of the first part, for and in consideration of the sum of Seventeen Hundred seventy and 00/100 DOLLARS, lawful money of the United States of America, to them in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained and sold, and by these presents do grant, bargain, sell, convey and confirm unto the said party of the second part, and to his heirs and assigns forever, all the following described real estate situated in Canyon County, State of Idaho, to-wit:

all of Block Sixteen (16) in Crumbling & Fulmer addition to Nampa Canyon County Idaho as the same appears on a Plat of said addition now on file in the recorders office of said Canyon County Idaho

The consideration being omitted when this deed was first recorded it is re-recorded to correct the omission

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all estate, right, title and interest in and to the said property, as well in law as in equity, of the said parties of the first part:

To Have and to Hold all and singular, the above mentioned and described premises, together with the appurtenances, unto the party of the second part, and to his heirs and assigns forever. And the said parties of the first part, and their heirs, the said premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns, against the said parties of the first part, and their heirs, and against all and every person and persons whomsoever, lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In Witness Whereof, The said parties of the first part have hereunto set their hands and seals the day and year first above written.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF

Fred G. Mock

[SEAL]
Ira Miller [SEAL]
Mary A. Miller [SEAL]
[SEAL]

STATE OF IDAHO,
COUNTY OF Canyon } ss.

On this 3rd day of May, in the year 1902, before me Fred G. Mock, a Notary Public, in and for said County, personally appeared Ira Miller, known to me to be the identical person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same, and on this 3d day of May, in the year 1902, before me, the officer above described, personally appeared Mary A. Miller known to me to be the person whose name is subscribed to the within instrument, described as a married woman; and upon an examination without the hearing of her husband, I made her acquainted with the contents of the instrument, and thereupon she acknowledged to me that she executed the same, and that she does not wish to retract such execution.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in the certificate first above written.

(Seal)

Fred G. Mock
Notary Public

STATE OF IDAHO,
COUNTY OF CANYON } ss.

I hereby certify that this instrument was filed for record at the request of F. G. Mock at 30 minutes past 9 o'clock A. M., this 3 day of June, 1902

Edgar Mick Ex-officio Recorder.
By Deputy

Instrument Number 518.

Know all men by these presents: that I, Joseph T. Flippen, of Ada County, Idaho Territory, party of the first part, for and in consideration of the sum of two hundred dollars paid by Robert White of said county and territory, party of the second part, the receipt whereof is hereby acknowledged, do hereby convey, remise, release and forever quit claim unto the said Robert White, his heirs and assigns, all that lot, tract or parcel of land, situate in Ada County, Idaho Territory and bounded and described as follows, to-wit: Lots five and six section (15) fifteen in township No. four (4) north of range no. (2) two west containing seventy and ninety one hundredths acres more or less. With all the buildings, improvements, privileges and appurtenances thereon being and thereunto belonging or appertaining.

To have and to hold the above released premises to the said Robert White his heirs and assigns, to his own use and behoof forever. And the said Joseph T. Flippen, for himself and his heirs, executors, does covenant with the said Robert White his heirs and assigns that the said premises are free from all incumbrances made or suffered by the said Joseph T. Flippen.

In witness whereof, the said Joseph T. Flippen has hereunto set his hand and seal, this first day of March A.D. 1871.

Signed, sealed and delivered in the presence of — Joseph T. Flippen (SEAL)

George Byington,

O.S. Buck.

Territory of Idaho,)
ss.
County of Ada.)

On this first day of March A.D. 1871, personally appeared before me a W.W.Gliddon a Justice of the Peace in and for said County Joseph T. Flippen who is personally known to me to be the identical person described in and who executed the foregoing instrument of writing and acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

Given under my hand the day and year above written.

W.W.Gliddon, Justice of the Peace in and for said County and Territory.

State of Idaho,)
ss.
County of Canyon)

I hereby certify that the foregoing instrument was filed for record at request of R.S.Madden at 3:20 o'clock P.M. July 1st, 1903.

John A. Tucker,
Ex-Officio Recorder.

Fees $ 0.80

PID001192

This Indenture, Made this 27th day of August, in the year of our Lord one thousand nine hundred and One, between Benjamin Menard and Jessie Menard, his wife of Caldwell County of Canyon State of Idaho, part ies of the first part, and Andrew J. Reagan of Caldwell County of Canyon State of Idaho, the party of the second part:

Witnesseth, That the said part ies of the first part, for and in consideration of the sum of One Thousand and no/100 DOLLARS, lawful money of the United States of America, to them in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained and sold, and by these presents do grant, bargain, sell, convey and confirm unto the said party of the second part, and to his heirs and assigns forever, all the following described real estate situated in Canyon County, State of Idaho, to-wit:

Lots numbered twenty-five (25), twenty-seven (27), twenty-nine (29), thirty-one (31), thirty-three (33) and thirty-five (35) in Block thirty-seven (37) of the original town of Nampa, according to the plats of said town on file in the office of the County Recorder of Canyon County, State of Idaho.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all estate, right, title and interest in and to the said property, as well in law as in equity, of the said party of the first part:

To Have and to Hold all and singular, the above mentioned and described premises, together with the appurtenances, unto the party of the second part, and to his heirs and assigns forever. And the said party ies of the first part, and their heirs, the said premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns, against the said party ies of the first part, and their heirs, and against all and every person and persons whomsoever, lawfully claiming or to claim the same shall and will warrant and by these presents forever defend.

In Witness Whereof, The said party ies of the first part have hereunto set their hand 8 and seal 8 the day and year first above written.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF

Benjamin Menard [SEAL]
Jesse Menard [SEAL]
[SEAL]
[SEAL]

STATE OF IDAHO, COUNTY OF Canyon } ss.

On this 27th day of August in the year 1901 before me, a Notary Public, in and for said County personally appeared Benjamin Menard known to me to be the identical person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same; and on this 27th day of August in the year 1901, before me, the officer above described, personally appeared Jessie Menard known to me to be the person whose name is subscribed to the within instrument, described as a married woman; and upon an examination without the hearing of her husband, I made her acquainted with the contents of the instrument, and thereupon she acknowledged to me that she executed the same, and that she does not wish to retract such execution.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in the certificate first above written.

Seal

John C. Rice
Notary Public

STATE OF IDAHO, COUNTY OF CANYON } ss.

I hereby certify that this instrument was filed for record at the request of Chas. Madden at 42 minutes past 4 o'clock P.M. this 27th day of August, 1901.

Edgar Meek
Ex-officio Recorder
By J. P. Johnson Deputy

PID001193

Photographs of Franklin Ditch Co. upper point of diversion, near Highline Canal headgate by Scott King. All photos taken November 9, 2010 unless otherwise noted.

Figure 1: Headgate on right with Boise River in background. The concrete structure includes two 4-ft gates; an orange tarp is used to block flow.

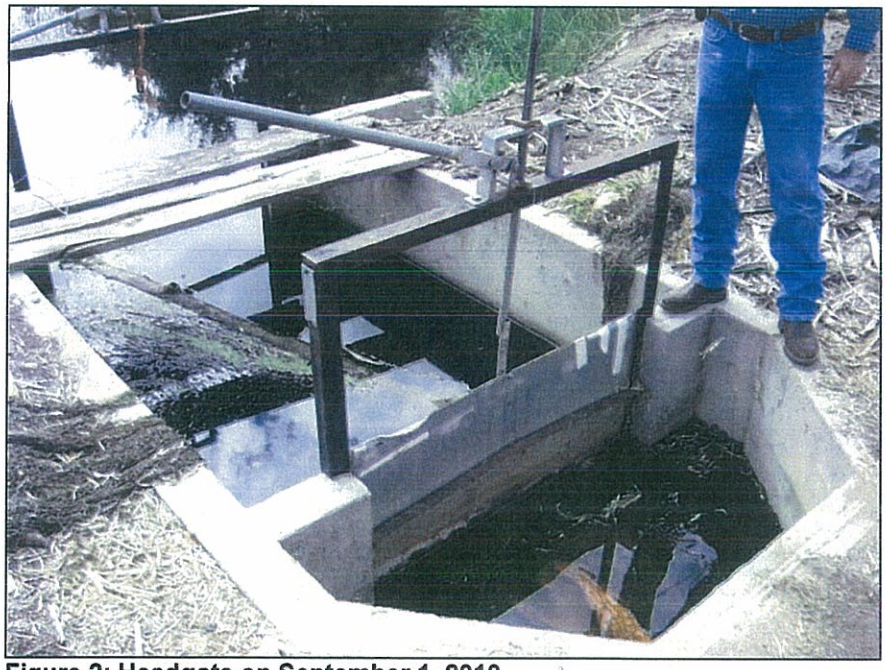


Figure 2: Headgate on September 1, 2010.

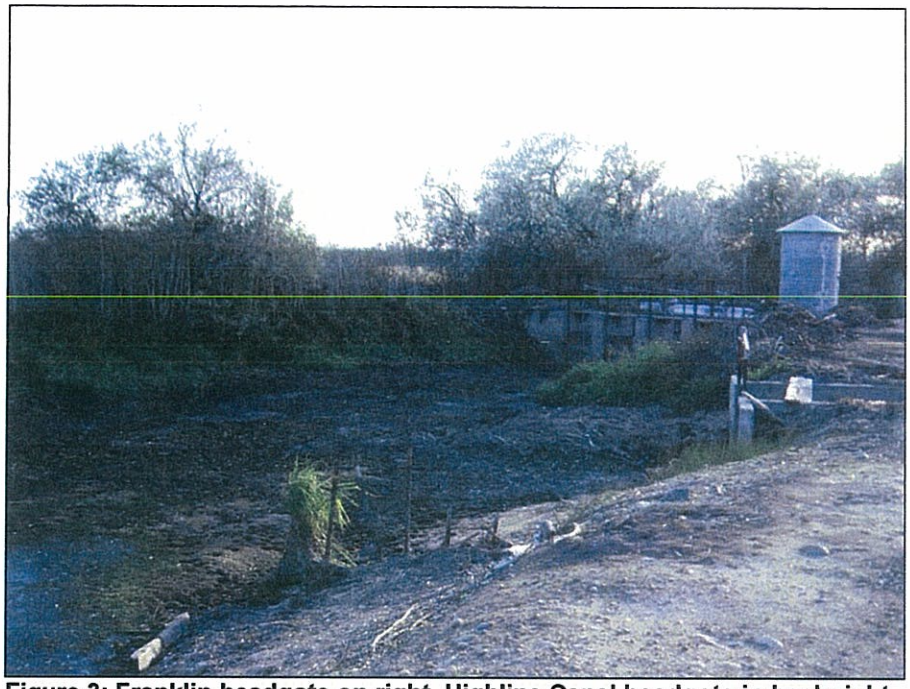


Figure 3: Franklin headgate on right, Highline Canal headgate in back right.

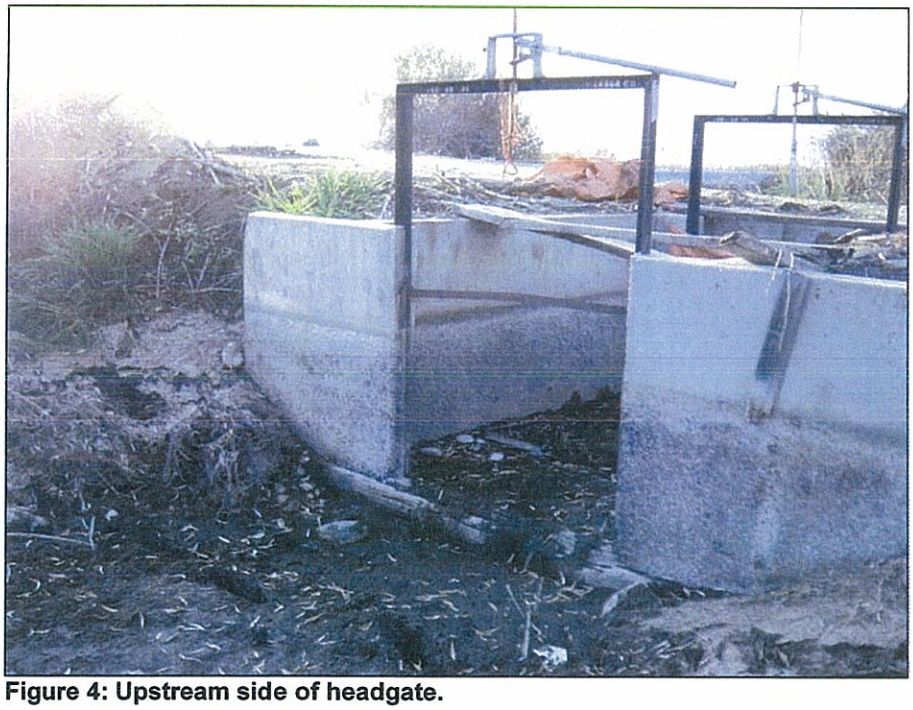


Figure 4: Upstream side of headgate.

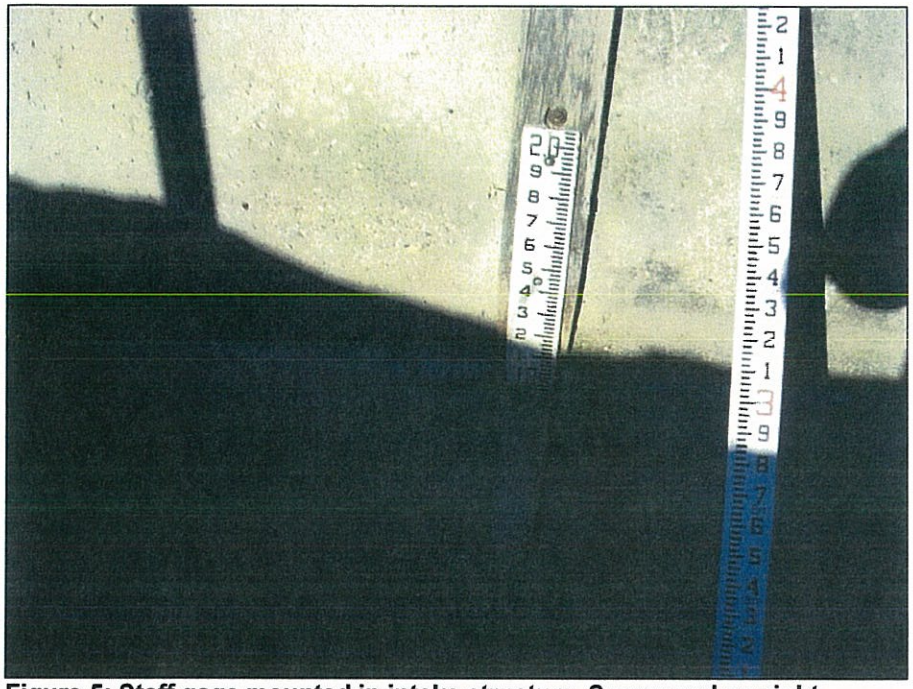


Figure 5: Staff gage mounted in intake structure. Survey rod on right.

Figure 6: Culvert entrance blocked for winter.

Figure 7: Dicharge side of diversion is concrete slipform ditch. Culvert exit is near photo center, below tree branches.

Figure 8: Discharge end of culvert pipe.

Figure 9: Facing upstream end of culvert pipe, which is blocked off for winter.

Figure 10: Water mark at culvert discharge.

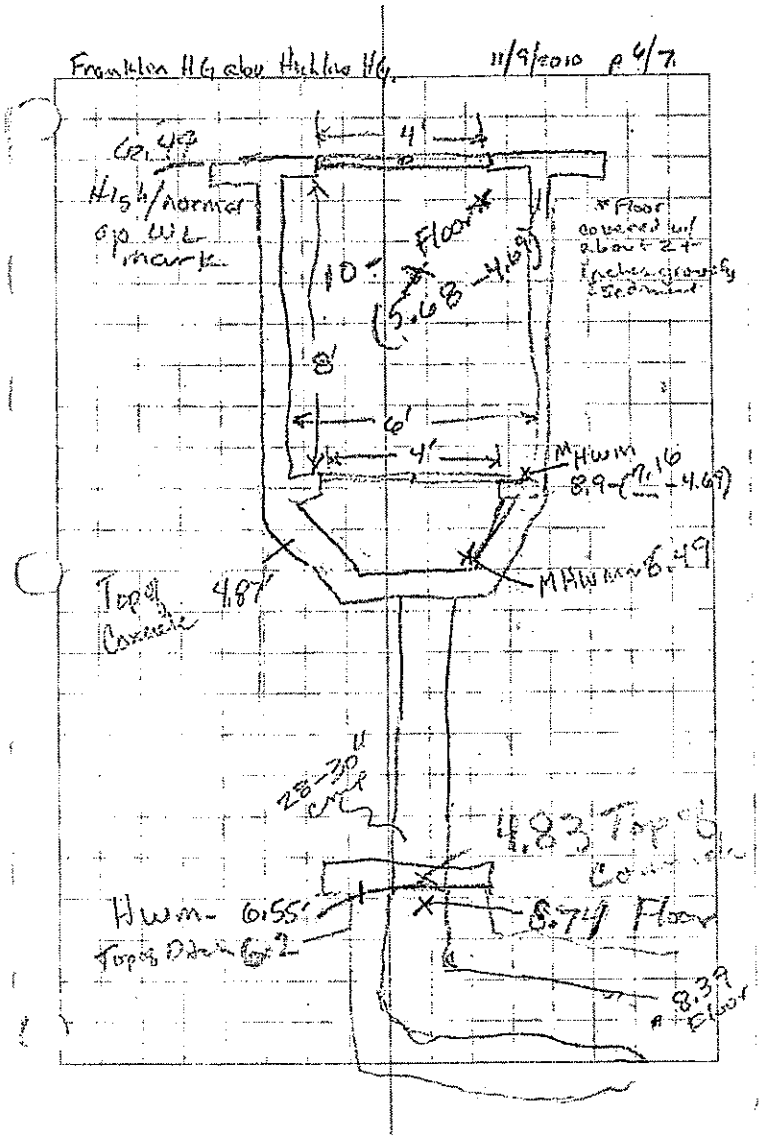
Figure 11: Concrete ditch below culvert discharge. A corrugated metal pipe (cmp) crosses the ditch, conveying water over the Highline Canal and this ditch. Photo taken September 1, 2010.

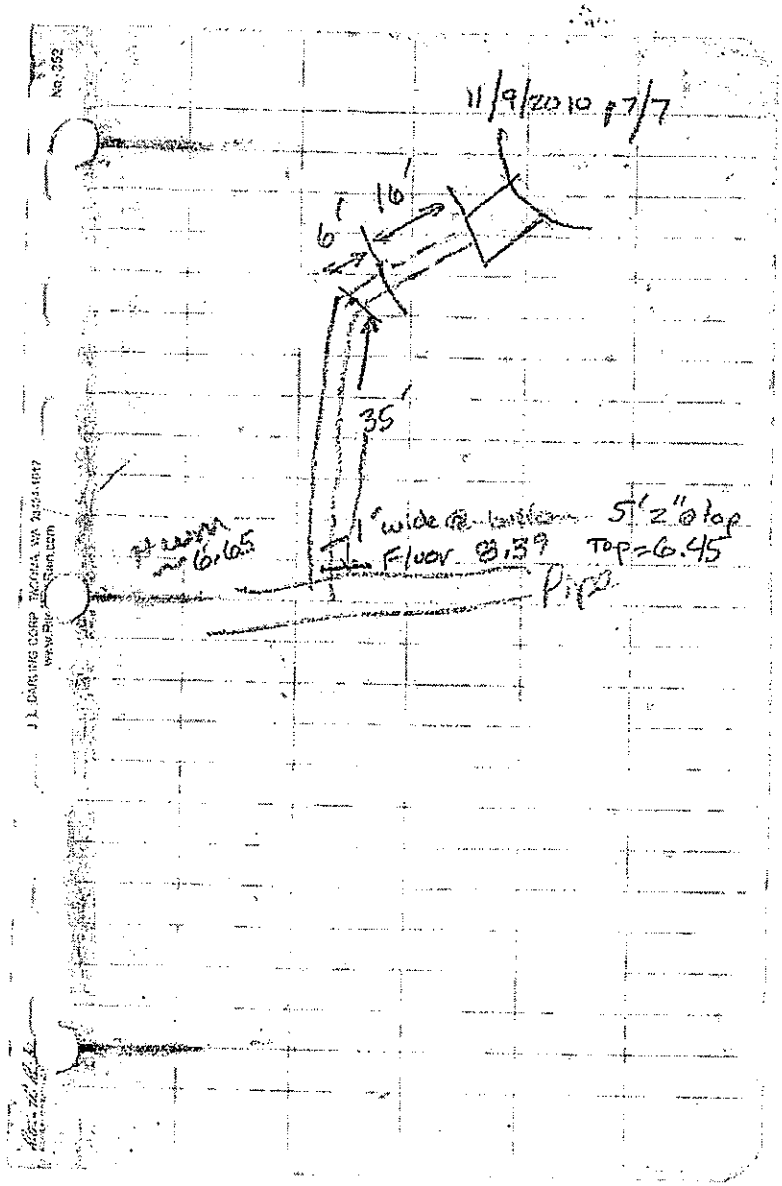
Figure 12: Concrete ditch at CMP pipe crossing located about 41 feet downstream from culvert exit.

Figure 13: Watermark at CMP pipe crossing.

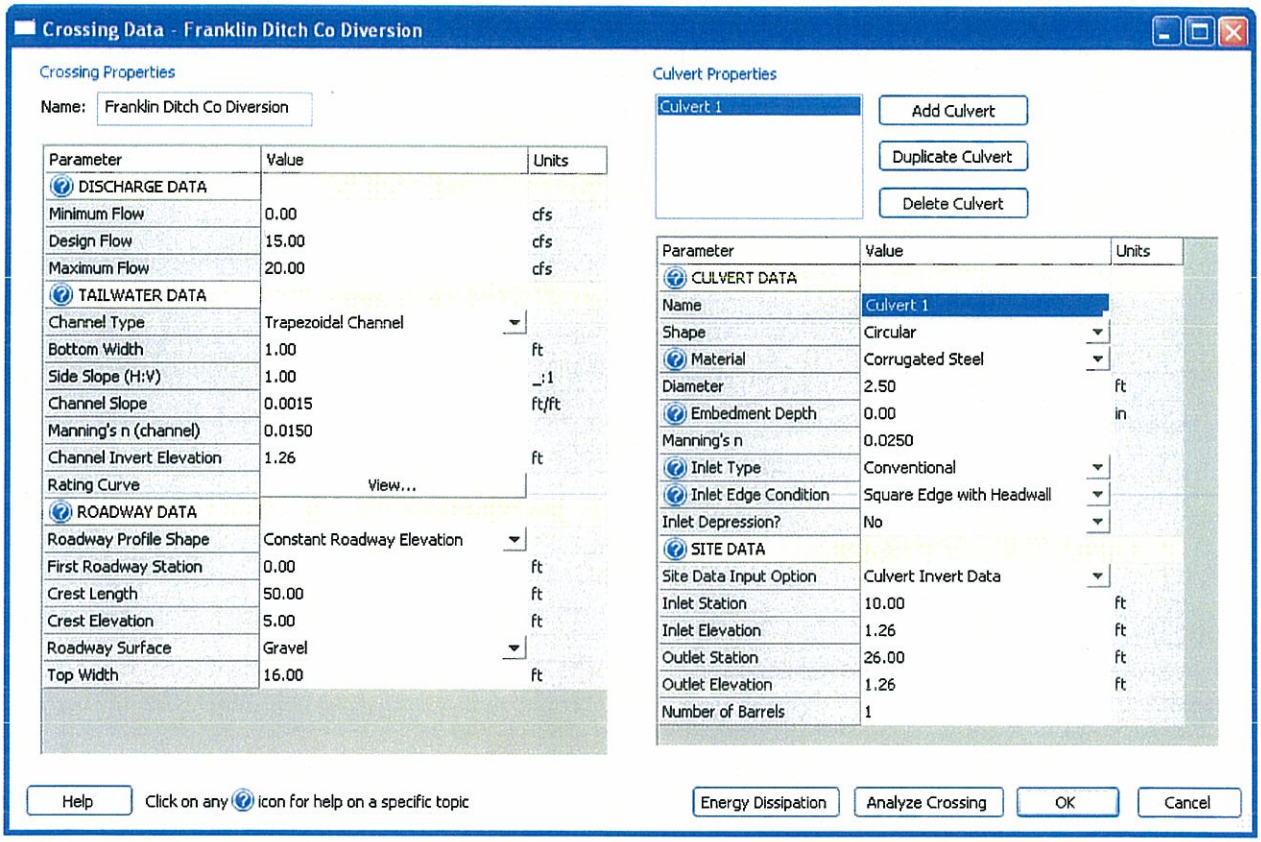
Figure 14: Ditch below CMP pipe crossing.

Franklin HG abv Hickline HG. 11/9/2010 p 6/7




11/9/2010 p7/7
16'
6'
35'
1' wide @ bottom 5'2" @ top
Floor 8.39 Top=6.45
Pipe
~6.65

Franklin Ditch Company Upstream Point of Diversion Data for HY-8 Analysis



Summary of Flows at Crossing - Franklin Ditch Co Diversion

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
1.26	0.00	0.00	0.00	1
2.03	2.00	2.00	0.00	1
2.36	4.00	4.00	0.00	1
2.61	6.00	6.00	0.00	1
2.82	8.00	8.00	0.00	1
3.02	10.00	10.00	0.00	1
3.20	12.00	12.00	0.00	1
3.37	14.00	14.00	0.00	1
3.46	15.00	15.00	0.00	1
3.70	18.00	18.00	0.00	1
3.87	20.00	20.00	0.00	1
5.00	31.75	31.75	0.00	Overtopping

Display

- (•) Crossing Summary Table
- ( ) Culvert Summary Table
- ( ) Water Surface Profiles
- ( ) Improved Inlet Table
- ( ) Customized Table

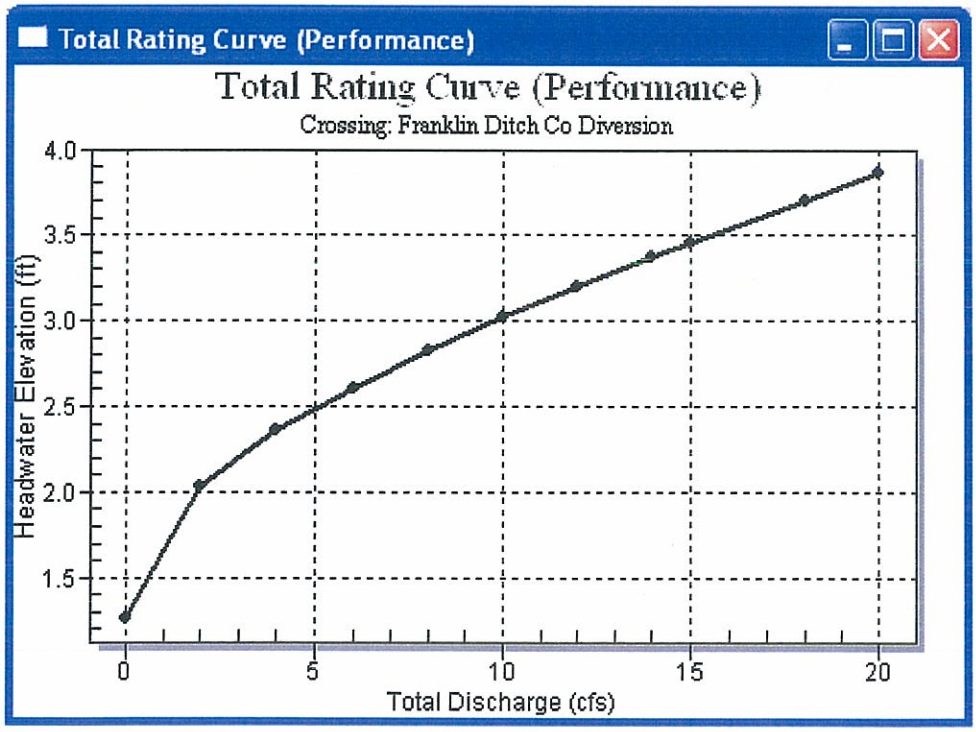
Geometry

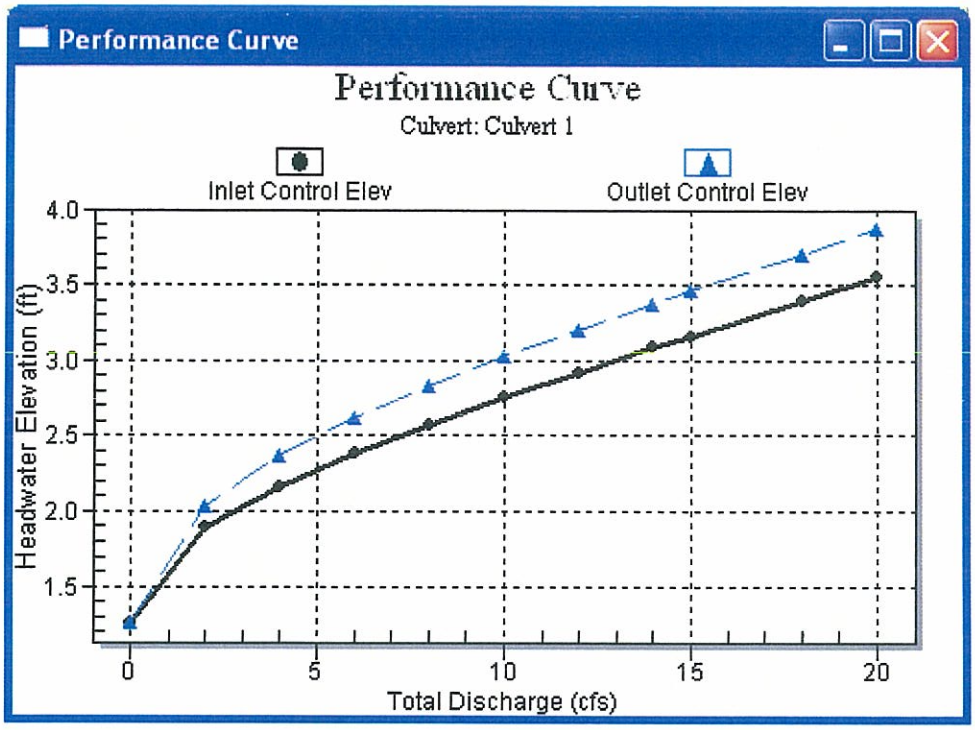
Plot

Crossing Rating Curve

Outlet Control: Profiles

Help | Flow Types... | Edit Input Data... | Energy Dissipation... | Export Report | Adobe PDF (*.pdf) | Close





Culvert Summary Table - Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth(ft)	Outlet Control Depth(ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	1.26	0.00	0.00	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
2.00	2.00	2.03	0.63	**0.77**	3-M2t	2.50	0.45	0.63	0.63	2.08	1.97
4.00	4.00	2.36	0.90	**1.10**	3-M2t	2.50	0.65	0.90	0.90	2.53	2.35
6.00	6.00	2.61	1.12	**1.35**	3-M2t	2.50	0.80	1.10	1.10	2.89	2.61
8.00	8.00	2.82	1.31	**1.56**	3-M2t	2.50	0.93	1.26	1.26	3.22	2.80
10.00	10.00	3.02	1.49	**1.76**	3-M2t	2.50	1.05	1.40	1.40	3.52	2.96
12.00	12.00	3.20	1.66	**1.94**	3-M2t	2.50	1.16	1.53	1.53	3.81	3.10
14.00	14.00	3.37	1.82	**2.11**	3-M2t	2.50	1.26	1.64	1.64	4.09	3.22
15.00	15.00	3.46	1.90	**2.20**	3-M2t	2.50	1.30	1.70	1.70	4.22	3.28
18.00	18.00	3.70	2.13	**2.44**	3-M2t	2.50	1.43	1.85	1.85	4.63	3.43
20.00	20.00	3.87	2.29	**2.61**	3-M2t	2.50	1.52	1.94	1.94	4.90	3.52

Display

- ○ Crossing Summary Table
- ◉ Culvert Summary Table — Culvert 1
- ○ Water Surface Profiles
- ○ Improved Inlet Table
- ○ Customized Table

Options...

Geometry

Inlet Elevation:	1.26 ft
Outlet Elevation:	1.26 ft
Culvert Length:	16.00 ft
Culvert Slope:	0.0001
Outlet Control:	Profiles

Plot

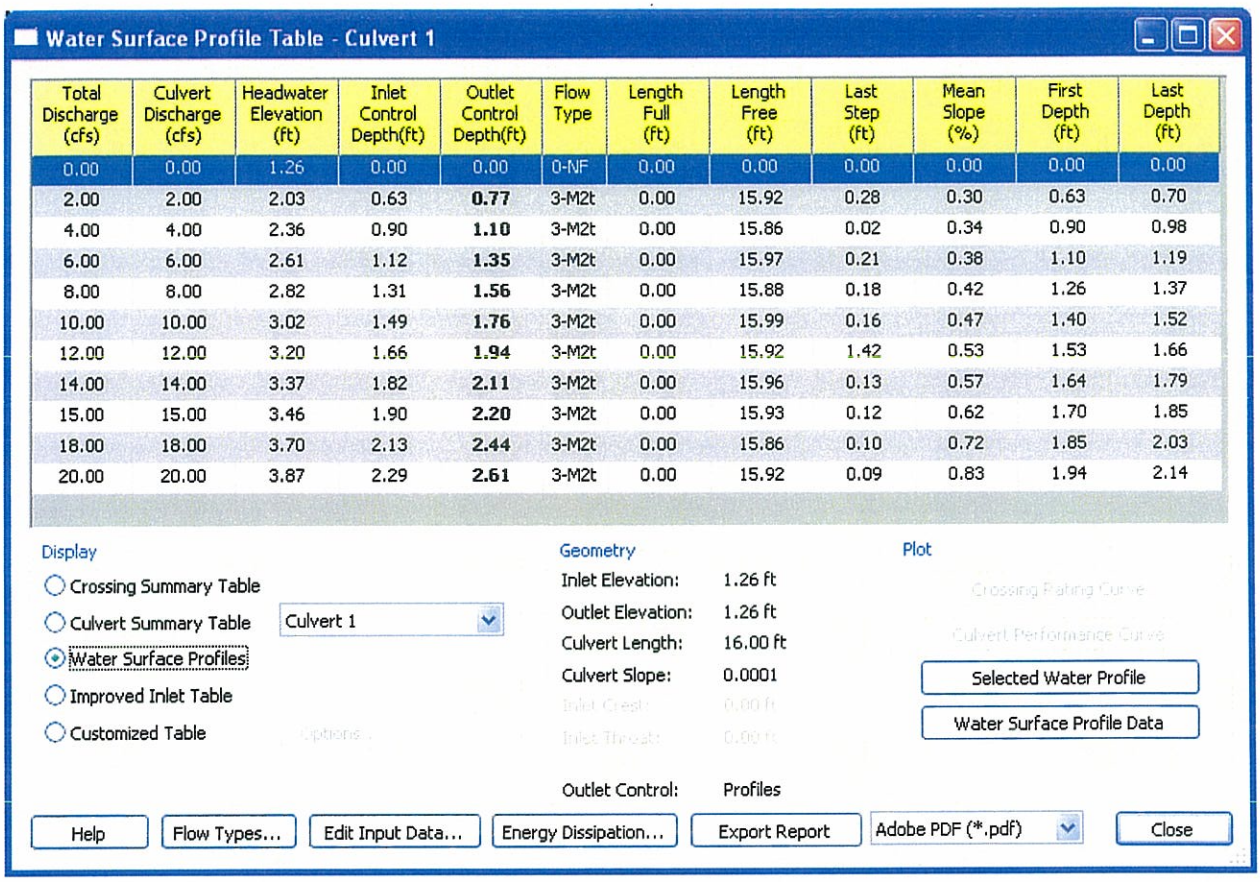
Crossing Rating Curve

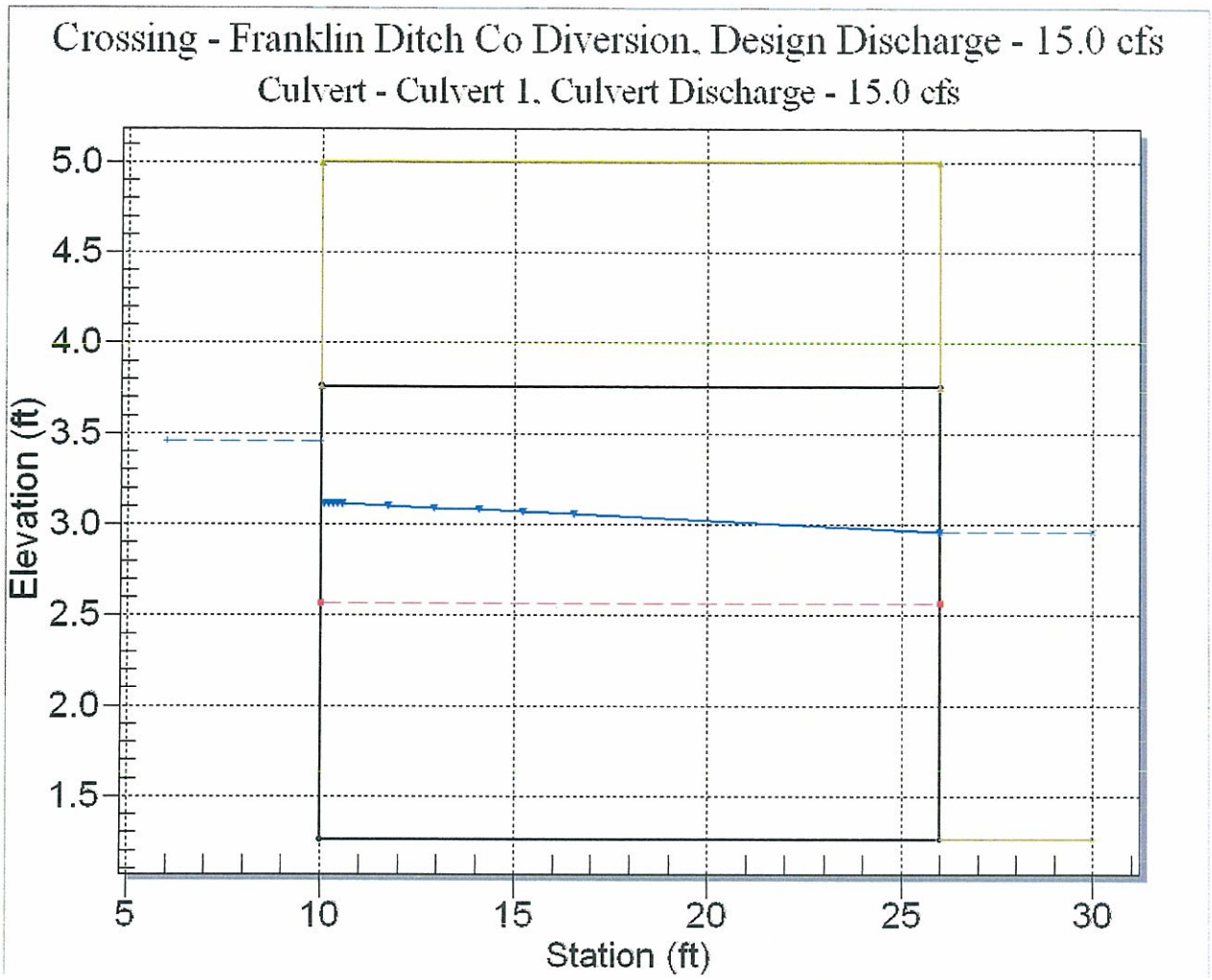
Culvert Performance Curve

Selected Water Profile

Water Surface Profile Data

Help | Flow Types... | Edit Input Data... | Energy Dissipation... | Export Report | Adobe PDF (*.pdf) | Close


Water Surface Profile Table - Culvert 1
Total Discharge (cfs) | Culvert Discharge (cfs) | Headwater Elevation (ft) | Inlet Control Depth(ft) | Outlet Control Depth(ft) | Flow Type | Length Full (ft) | Length Free (ft) | Last Step (ft) | Mean Slope (%) | First Depth (ft) | Last Depth (ft)
0.00 | 0.00 | 1.26 | 0.00 | 0.00 | 0-NF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00
2.00 | 2.00 | 2.03 | 0.63 | 0.77 | 3-M2t | 0.00 | 15.92 | 0.28 | 0.30 | 0.63 | 0.70
4.00 | 4.00 | 2.36 | 0.90 | 1.10 | 3-M2t | 0.00 | 15.86 | 0.02 | 0.34 | 0.90 | 0.98
6.00 | 6.00 | 2.61 | 1.12 | 1.35 | 3-M2t | 0.00 | 15.97 | 0.21 | 0.38 | 1.10 | 1.19
8.00 | 8.00 | 2.82 | 1.31 | 1.56 | 3-M2t | 0.00 | 15.88 | 0.18 | 0.42 | 1.26 | 1.37
10.00 | 10.00 | 3.02 | 1.49 | 1.76 | 3-M2t | 0.00 | 15.99 | 0.16 | 0.47 | 1.40 | 1.52
12.00 | 12.00 | 3.20 | 1.66 | 1.94 | 3-M2t | 0.00 | 15.92 | 1.42 | 0.53 | 1.53 | 1.66
14.00 | 14.00 | 3.37 | 1.82 | 2.11 | 3-M2t | 0.00 | 15.96 | 0.13 | 0.57 | 1.64 | 1.79
15.00 | 15.00 | 3.46 | 1.90 | 2.20 | 3-M2t | 0.00 | 15.93 | 0.12 | 0.62 | 1.70 | 1.85
18.00 | 18.00 | 3.70 | 2.13 | 2.44 | 3-M2t | 0.00 | 15.86 | 0.10 | 0.72 | 1.85 | 2.03
20.00 | 20.00 | 3.87 | 2.29 | 2.61 | 3-M2t | 0.00 | 15.92 | 0.09 | 0.83 | 1.94 | 2.14
Display
Crossing Summary Table
Culvert Summary Table
Culvert 1
Water Surface Profiles
Improved Inlet Table
Customized Table
Options...
Geometry
Inlet Elevation: 1.26 ft
Outlet Elevation: 1.26 ft
Culvert Length: 16.00 ft
Culvert Slope: 0.0001
Inlet Crest: 0.00 ft
Inlet Throat: 0.00 ft
Outlet Control: Profiles
Plot
Crossing Rating Curve
Culvert Performance Curve
Selected Water Profile
Water Surface Profile Data
Help
Flow Types...
Edit Input Data...
Energy Dissipation...
Export Report
Adobe PDF (*.pdf)
Close


Crossing - Franklin Ditch Co Diversion, Design Discharge - 15.0 cfs
Culvert - Culvert 1, Culvert Discharge - 15.0 cfs
Elevation (ft)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
5
10
15
20
25
30
Station (ft)

Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash.

Engineering Properties– Canyon Area, Idaho

Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
BdA—Baldock loam, 0 to 1 percent slopes												
Baldock	0-16	*Loam	CL	A-6	0	0	90-100	90-100	75-100	55-90	24-36	7-15
	16-27	*Loam, Silt loam	CL	A-6	0	0	90-100	90-100	75-100	55-85	27-38	12-19
	27-60	*Fine sandy loam, Sandy loam	SC-SM	A-4	0	0	75-100	75-100	50-80	25-50	16-27	2-10
BdB—Baldock loam, 1 to 3 percent slopes												
Baldock	0-16	*Loam	CL	A-6	0	0	90-100	90-100	75-100	55-90	24-36	7-15
	16-27	*Loam, Silt loam	CL	A-6	0	0	90-100	90-100	75-100	55-85	27-38	12-19
	27-60	*Fine sandy loam, Sandy loam	SC-SM	A-4	0	0	75-100	75-100	50-80	25-50	16-27	2-10
BrA—Bram silt loam, 0 to 1 percent slopes												
Bram	0-17	*Silt loam	CL	A-4	0	0-5	90-95	90-95	90-95	75-90	24-33	7-12
	17-52	*Silt loam, Loam, very fine sandy loam	CL	A-4	0	0-5	90-95	90-95	90-95	75-90	22-30	7-12
	52-65	*Fine sandy loam, Gravelly loam	SC	A-2, A-4	0	0	55-100	50-100	45-70	25-40	22-30	7-12

PID001251

Engineering Properties– Canyon Area, Idaho												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
BsA—Bram silt loam, saline-alkali, 0 to 1 percent slopes												
Bram, saline-alkali	0-17	*Silt loam	CL	A-4	0	0-5	90-95	90-95	90-95	75-90	24-33	7-12
	17-52	*Silt loam, Loam, very fine sandy loam	CL	A-4	0	0-5	90-95	90-95	90-95	75-90	22-30	7-12
	52-65	*Fine sandy loam, Gravelly loam	SC	A-2, A-4	0	0	55-100	50-100	45-70	25-40	22-30	7-12
Ca—Catherine silt loam												
Catherine	0-23	*Silt loam	OH, ML	A-6, A-7	0	0	100	100	95-100	90-99	36-58	11-18
	23-42	*Silty clay loam, Silt loam	CL, CL-ML	A-6, A-7	0	0	100	100	89-100	84-100	29-52	12-24
	42-57	*Loam	SC-SM, SM, CL	A-4, A-6	0	0	100	100	83-93	58-68	20-32	6-13
	57-61	*Fine sandy loam	SC-SM	A-4	0	0	100	100	87-97	41-51	16-27	2-10
Ch—Chance fine sandy loam												
Chance	0-1	*Slightly decomposed plant material	PT	A-8	0	0	100	100	60-100	50-90	—	—
	1-2	*Moderately decomposed plant material	PT	A-8	0	0	100	100	60-100	50-90	—	—
	2-14	*Fine sandy loam	SC	A-4	0	0	100	100	70-85	40-50	22-35	6-13
	14-25	*Sandy loam, Fine sandy loam	SC	A-4, A-2	0	0-5	80-100	80-100	60-85	30-50	20-30	6-12
	25-62	*Sand, gravel	GP-GM, SM, SP-SM, GM	A-1, A-2, A-3	0	0-20	25-90	25-90	15-75	5-25	0-19	NP-2

PID001252

Engineering Properties– Canyon Area, Idaho												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
FaA—Falk fine sandy loam, 0 to 2 percent slopes												
Falk	0-9	*Fine sandy loam	SC	A-4	0	0	100	100	70-85	40-50	24-33	7-12
	9-33	*Fine sandy loam, Sandy loam	SC	A-2, A-4	0	0	90-100	80-100	45-85	25-50	23-31	7-12
	33-60	*Very gravelly sand, Very gravelly coarse sandy loam	GW	A-1	0	0-5	35-50	35-50	15-35	0-20	0-20	NP-3
Gp—Gravel pit												
Pits, gravel	0-60	*Gravel, cobbles	—	—	—	—	—	—	—	—	—	—
JeA—Jenness loam, 0 to 1 percent slopes												
Jenness	0-9	*Loam	CL	A-4	0	0	100	100	85-95	60-75	27-35	9-13
	9-43	*Silt loam, Loam	CL	A-4	0	0	100	100	85-100	60-90	22-30	7-12
	43-60	*Stratified coarse sand to loamy sand	CL-ML, ML	A-4	0	0	90-100	90-100	75-85	55-75	20-30	NP-10
JeB—Jenness loam, 1 to 3 percent slopes												
Jenness	0-9	*Loam	CL	A-4	0	0	100	100	85-95	60-75	27-35	9-13
	9-43	*Silt loam, Loam	CL	A-4	0	0	100	100	85-100	60-90	22-30	7-12
	43-60	*Stratified coarse sand to loamy sand	CL-ML, ML	A-4	0	0	90-100	90-100	75-85	55-75	20-30	NP-10

PID001253

Engineering Properties– Canyon Area, Idaho

Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
LtA—Letha fine sandy loam, strongly saline-alkali, 0 to 1 percent slopes												
Letha, strongly saline-alkali	0-5	*Fine sandy loam	ML, SM	A-4	0	0	90-100	90-100	90-95	40-60	20-31	2-6
	5-40	*Fine sandy loam	ML, SM	A-4	0	0	90-100	90-100	90-95	40-60	18-31	2-10
	40-58	*Sand	SM	A-2	0	0	95-100	95-100	65-75	20-30	0-23	NP-6
MoA—Moulton loamy sand, 0 to 1 percent slopes												
Moulton	0-3	*Loamy sand	SM	A-1, A-2	0	0	90-100	90-100	45-75	15-30	20-31	2-6
	3-21	*Fine sandy loam, Sandy loam	SC	A-4	0	0	90-100	90-100	75-90	40-60	22-35	6-13
	21-60	*Very gravelly sand, Very gravelly loamy sand	GW	A-1	0	0	30-60	30-50	15-35	0-15	17-24	2-6
MlA—Moulton fine sandy loam, 0 to 1 percent slopes												
Moulton	0-3	*Fine sandy loam	SC	A-4	0	0	90-100	90-100	65-85	35-55	25-39	6-13
	3-21	*Fine sandy loam, Sandy loam	SC	A-4	0	0	90-100	90-100	75-90	40-60	22-35	6-13
	21-60	*Very gravelly sand, Very gravelly loamy sand	GW	A-1	0	0	30-60	30-50	15-35	0-15	17-24	2-6

PID001254

Engineering Properties– Canyon Area, Idaho												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
MuA—Moulton fine sandy loam, saline, 0 to 1 percent slopes												
Moulton, saline	0-3	*Fine sandy loam	SC	A-4	0	0	90-100	90-100	65-85	35-55	25-39	6-13
	3-21	*Fine sandy loam, Sandy loam	SC	A-4	0	0	90-100	90-100	75-90	40-60	22-35	6-13
	21-60	*Very gravelly sand, Very gravelly loamy sand	GW	A-1	0	0	30-60	30-50	15-35	0-15	17-24	2-6
MvA—Moulton loam, 0 to 1 percent slopes												
Moulton	0-3	*Loam	CL	A-4	0	0	90-100	90-100	75-95	55-75	25-39	6-13
	3-21	*Fine sandy loam, Sandy loam	SC	A-4	0	0	90-100	90-100	75-90	40-60	22-35	6-13
	21-60	*Very gravelly sand, Very gravelly loamy sand	GW	A-1	0	0	30-60	30-50	15-35	0-15	17-24	2-6
MwA—Moulton loam, saline, 0 to 1 percent slopes												
Moulton, saline	0-3	*Loam	CL	A-4	0	0	90-100	90-100	75-95	55-75	25-39	6-13
	3-21	*Fine sandy loam, Sandy loam	SC	A-4	0	0	90-100	90-100	75-90	40-60	22-35	6-13
	21-60	*Very gravelly sand, Very gravelly loamy sand	GW	A-1	0	0	30-60	30-50	15-35	0-15	17-24	2-6
No—Notus soils												
Notus	0-1	*Sandy loam	SM	A-2, A-4	0	0	95-100	90-100	55-85	25-50	17-24	2-6
	1-14	*Fine sandy loam	SM	A-4, A-2	0	0	95-100	90-100	55-85	25-50	17-24	2-6
	14-60	*Stratified sand to gravel	GP-GM	A-1	0	0-25	30-50	25-45	15-30	5-10	—	NP

PID001255

Engineering Properties– Canyon Area, Idaho												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
OgA—Oliaga loam, 0 to 1 percent slopes												
Oliaga	0-8	*Loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-95	60-75	22-41	6-17
	8-35	*Loam, Fine sandy loam	CL-ML, ML	A-4	0	0	100	100	70-95	50-75	16-31	2-12
	35-60	*Sand, gravel	GP, SP	A-1	0	0-5	30-60	10-30	5-20	0-5	0-14	NP
OlA—Oliaga loam, saline-alkali, 0 to 1 percent slopes												
Oliaga, saline-alkali	0-8	*Loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-95	60-75	22-41	6-17
	8-35	*Loam, Fine sandy loam	CL-ML, ML	A-4	0	0	100	100	70-95	50-75	16-31	2-12
	35-60	*Sand, gravel	GP, SP	A-1	0	0-5	30-60	10-30	5-20	0-5	0-14	NP
PhA—Power silt loam, 0 to 1 percent slopes												
Power	0-9	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	29-36	12-15
	9-17	*Silt loam, Silty clay loam, loam	CL	A-6	0	0	100	100	95-100	80-95	35-47	16-25
	17-60	*Silt loam, Loam, very fine sandy loam	CL	A-6	0	0	95-100	90-100	90-100	60-85	24-32	9-13
PhB—Power silt loam, 1 to 3 percent slopes												
Power	0-9	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	29-36	12-15
	9-17	*Silt loam, Silty clay loam, loam	CL	A-6	0	0	100	100	95-100	80-95	35-47	16-25
	17-60	*Silt loam, Loam, very fine sandy loam	CL	A-6	0	0	95-100	90-100	90-100	60-85	24-32	9-13

PID001256

Engineering Properties– Canyon Area, Idaho												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
PpA—Power-Purdam silt loams, 0 to 1 percent slopes												
Power	0-9	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	29-36	12-15
	9-17	*Silt loam, Silty clay loam, loam	CL	A-6	0	0	100	100	95-100	80-95	35-47	16-25
	17-60	*Silt loam, Loam, very fine sandy loam	CL	A-6	0	0	95-100	90-100	90-100	60-85	24-32	9-13
Purdam	0-10	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	31-39	13-17
	10-13	*Silty clay loam, Silt loam	CL	A-6	0	0	100	100	90-100	70-95	36-45	17-23
	13-24	*Silt loam, Loam	CL	A-6	0	0	90-100	85-100	80-100	60-90	22-36	7-17
	24-38	*Cemented material	—	—	—	—	—	—	—	—	—	—
	38-60	*Stratified very gravelly sand to loam	SM	A-1	0	0-10	70-85	40-80	25-45	10-20	20-30	NP-5
PpB—Power-Purdam silt loams, 1 to 3 percent slopes												
Power	0-9	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	29-36	12-15
	9-17	*Silt loam, Silty clay loam, loam	CL	A-6	0	0	100	100	95-100	80-95	35-47	16-25
	17-60	*Silt loam, Loam, very fine sandy loam	CL	A-6	0	0	95-100	90-100	90-100	60-85	24-32	9-13
Purdam	0-10	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	31-39	13-17
	10-13	*Silty clay loam, Silt loam	CL	A-6	0	0	100	100	90-100	70-95	36-45	17-23
	13-24	*Silt loam, Loam	CL	A-6	0	0	90-100	85-100	80-100	60-90	22-36	7-17
	24-38	*Cemented material	—	—	—	—	—	—	—	—	—	—
	38-60	*Stratified very gravelly sand to loam	SM	A-1	0	0-10	70-85	40-80	25-45	10-20	20-30	NP-5

PID001257

Engineering Properties– Canyon Area, Idaho												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
PpC—Power-Purdam silt loams, 3 to 7 percent slopes												
Power	0-9	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	29-36	12-15
	9-17	*Silt loam, Silty clay loam, loam	CL	A-6	0	0	100	100	95-100	80-95	35-47	16-25
	17-60	*Silt loam, Loam, very fine sandy loam	CL	A-6	0	0	95-100	90-100	90-100	60-85	24-32	9-13
Purdam	0-10	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	31-39	13-17
	10-13	*Silty clay loam, Silt loam	CL	A-6	0	0	100	100	90-100	70-95	36-45	17-23
	13-24	*Silt loam, Loam	CL	A-6	0	0	90-100	85-100	80-100	60-90	22-36	7-17
	24-38	*Cemented material	—	—	—	—	—	—	—	—	—	—
	38-60	*Stratified very gravelly sand to loam	SM	A-1	0	0-10	70-85	40-80	25-45	10-20	20-30	NP-5
PpD—Power-Purdam silt loams, 7 to 12 percent slopes												
Power	0-9	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	29-36	12-15
	9-17	*Silt loam, Silty clay loam, loam	CL	A-6	0	0	100	100	95-100	80-95	35-47	16-25
	17-60	*Silt loam, Loam, very fine sandy loam	CL	A-6	0	0	95-100	90-100	90-100	60-85	24-32	9-13
Purdam	0-10	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	31-39	13-17
	10-13	*Silty clay loam, Silt loam	CL	A-6	0	0	100	100	90-100	70-95	36-45	17-23
	13-24	*Silt loam, Loam	CL	A-6	0	0	90-100	85-100	80-100	60-90	22-36	7-17
	24-38	*Cemented material	—	—	—	—	—	—	—	—	—	—
	38-60	*Stratified very gravelly sand to loam	SM	A-1	0	0-10	70-85	40-80	25-45	10-20	20-30	NP-5

PID001258

Engineering Properties– Canyon Area, Idaho												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
PrA—Purdam silt loam, 0 to 1 percent slopes												
Purdam	0-10	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	31-39	13-17
	10-13	*Silty clay loam, Silt loam	CL	A-6	0	0	100	100	90-100	70-95	36-45	17-23
	13-24	*Silt loam, Loam	CL	A-6	0	0	90-100	85-100	80-100	60-90	22-36	7-17
	24-38	*Cemented material	—	—	—	—	—	—	—	—	—	—
	38-60	*Stratified very gravelly sand to loam	SM	A-1	0	0-10	70-85	40-80	25-45	10-20	20-30	NP-5
PrB—Purdam silt loam, 1 to 3 percent slopes												
Purdam	0-10	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	31-39	13-17
	10-13	*Silty clay loam, Silt loam	CL	A-6	0	0	100	100	90-100	70-95	36-45	17-23
	13-24	*Silt loam, Loam	CL	A-6	0	0	90-100	85-100	80-100	60-90	22-36	7-17
	24-38	*Cemented material	—	—	—	—	—	—	—	—	—	—
	38-60	*Stratified very gravelly sand to loam	SM	A-1	0	0-10	70-85	40-80	25-45	10-20	20-30	NP-5
PrC—Purdam silt loam, 3 to 7 percent slopes												
Purdam	0-10	*Silt loam	CL	A-6	0	0	100	100	90-100	70-90	31-39	13-17
	10-13	*Silty clay loam, Silt loam	CL	A-6	0	0	100	100	90-100	70-95	36-45	17-23
	13-24	*Silt loam, Loam	CL	A-6	0	0	90-100	85-100	80-100	60-90	22-36	7-17
	24-38	*Cemented material	—	—	—	—	—	—	—	—	—	—
	38-60	*Stratified very gravelly sand to loam	SM	A-1	0	0-10	70-85	40-80	25-45	10-20	20-30	NP-5
Re—Riverwash												
Riverwash	0-60	*Stratified sand to gravel	—	—	—	—	—	—	—	—	—	—

PID001259

Engineering Properties– Canyon Area, Idaho												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
Tc—Terrace escarpments												
Terrace escarpments	0-5	*Fine sandy loam	SC-SM	A-2	0	0-5	85-100	80-100	60-90	20-50	17-28	2-10
	5-60	*Fine sandy loam	SC-SM, SM	A-4, A-2	0	0-4	86-100	69-100	59-97	28-51	17-28	2-10
W—Water												
Water	—	—	—	—	—	—	—	—	—	—	—	—

Data Source Information

Soil Survey Area: Canyon Area, Idaho
Survey Area Data: Version 8, Jun 25, 2008

PID001260

Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

Report—Physical Soil Properties

Physical Soil Properties– Canyon Area, Idaho														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
BdA—Baldock loam, 0 to 1 percent slopes														
Baldock	0-16	-43-	-40-	12-17-22	1.20-1.40	4.00-14.11	0.16-0.21	0.0-2.9	1.0-2.0	.32	.32	5	4L	86
	16-27	-40-	-38-	18-23-27	1.25-1.40	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.32	.32			
	27-60	-64-	-27-	5-10-15	1.35-1.50	14.11-42.34	0.09-0.15	0.0-2.9	0.0-0.5	.10	.10			
BdB—Baldock loam, 1 to 3 percent slopes														
Baldock	0-16	-43-	-40-	12-17-22	1.20-1.40	4.00-14.11	0.16-0.21	0.0-2.9	1.0-2.0	.32	.32	5	4L	86
	16-27	-40-	-38-	18-23-27	1.25-1.40	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.32	.32			
	27-60	-64-	-27-	5-10-15	1.35-1.50	14.11-42.34	0.09-0.15	0.0-2.9	0.0-0.5	.10	.10			
BrA—Bram silt loam, 0 to 1 percent slopes														
Bram	0-17	-14-	-71-	12-15-18	1.25-1.35	4.00-14.11	0.14-0.17	0.0-2.9	1.0-2.0	.43	.49	5	4L	86
	17-52	-14-	-71-	12-15-18	1.50-1.60	1.41-4.23	0.08-0.11	0.0-2.9	0.0-0.5	.43	.49			
	52-65	-65-	-20-	12-15-18	1.50-1.60	14.11-42.34	0.07-0.10	0.0-2.9	0.0-0.5	.24	.43			

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Physical Soil Properties– Canyon Area, Idaho

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
BsA—Bram silt loam, saline-alkali, 0 to 1 percent slopes														
Bram, saline-alkali	0-17	-14-	-71-	12-15- 18	1.25-1.35	4.00-14.11	0.14-0.17	0.0-2.9	1.0-2.0	.43	.49	5	4L	86
	17-52	-14-	-71-	12-15- 18	1.50-1.60	1.41-4.23	0.08-0.11	0.0-2.9	0.0-0.5	.43	.49			
	52-65	-65-	-20-	12-15- 18	1.50-1.60	14.11-42.34	0.07-0.10	0.0-2.9	0.0-0.5	.24	.43			
Ca—Catherine silt loam														
Catherine	0-23	-10-	-68-	18-23- 27	1.25-1.35	4.00-14.11	0.19-0.21	0.0-2.9	4.0-10.0	.28	.28	5	6	48
	23-42	- 9-	-64-	18-28- 35	1.25-1.40	4.00-14.11	0.19-0.21	0.0-2.9	1.0-4.0	.37	.37			
	42-57	-44-	-41-	10-15- 20	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.43	.43			
	57-61	-64-	-27-	5-10- 15	1.35-1.50	14.11-42.34	0.09-0.15	0.0-2.9	0.0-0.5	.10	.10			
Ch—Chance fine sandy loam														
Chance	0-1	-35-	-50-	0-15- 25	0.10-0.30	42.00-705.00	0.30-0.60	—	60.0-95.0			4	8	0
	1-2	-35-	-50-	0-15- 25	0.10-0.30	42.00-705.00	0.30-0.60	—	60.0-95.0					
	2-14	-65-	-20-	10-15- 20	1.60-1.70	14.11-42.34	0.13-0.15	0.0-2.9	1.0-2.0	.28	.28			
	14-25	-66-	-20-	10-14- 18	1.60-1.70	14.11-42.34	0.11-0.15	0.0-2.9	0.0-0.5	.28	.32			
	25-62	—	—	0- 3- 5	1.70-2.00	42.34-141.14	0.03-0.07	0.0-2.9	0.0-0.5	.10	.10			

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Physical Soil Properties– Canyon Area, Idaho															
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index	
										Kw	Kf	T			
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*						
FaA—Falk fine sandy loam, 0 to 2 percent slopes															
Falk	0-9	-65-	-20-	12-15-18	1.60-1.70	14.11-42.34	0.13-0.15	0.0-2.9	1.0-2.0	.20	.20	4	3	86	
	9-33	-65-	-20-	12-15-18	1.60-1.70	14.11-42.34	0.11-0.15	0.0-2.9	0.5-1.0	.20	.24				
	33-60	-89-	-7-	2-4-6	1.65-1.75	42.34-141.14	0.03-0.07	0.0-2.9	0.0-0.5	.17	.28				
Gp—Gravel pit															
Pits, gravel	0-60	—	—	—	—	—	—	—	—						
JeA—Jenness loam, 0 to 1 percent slopes															
Jenness	0-9	-43-	-40-	15-18-20	1.50-1.60	4.00-14.11	0.16-0.18	0.0-2.9	1.0-2.0	.37	.37	5	5	56	
	9-43	-34-	-51-	12-15-18	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.49	.49				
	43-60	-95-	-1-	0-4-8	1.50-1.70	4.00-14.11	0.08-0.21	0.0-2.9	0.0-0.5	.43	.43				
JeB—Jenness loam, 1 to 3 percent slopes															
Jenness	0-9	-43-	-40-	15-18-20	1.50-1.60	4.00-14.11	0.16-0.18	0.0-2.9	1.0-2.0	.37	.37	5	5	56	
	9-43	-34-	-51-	12-15-18	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.49	.49				
	43-60	-95-	-1-	0-4-8	1.50-1.70	4.00-14.11	0.08-0.21	0.0-2.9	0.0-0.5	.43	.43				

PID001266

Physical Soil Properties– Canyon Area, Idaho

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
LtA—Letha fine sandy loam, strongly saline-alkali, 0 to 1 percent slopes														
Letha, strongly saline-alkali	0-5	-65-	-27-	5- 8- 10	1.55-1.65	4.00-14.11	0.10-0.15	0.0-2.9	2.0-4.0	.37	.37	5	3	86
	5-40	-64-	-27-	5-10- 15	1.45-1.55	4.00-14.11	0.10-0.13	0.0-2.9	1.0-2.0	.43	.43			
	40-58	-92-	- 2-	2- 6- 10	1.60-1.70	42.34-141.14	0.08-0.10	0.0-2.9	0.0-0.5	.10	.10			
MoA—Moulton loamy sand, 0 to 1 percent slopes														
Moulton	0-3	-84-	- 9-	5- 8- 10	1.50-1.70	42.34-141.14	0.06-0.08	0.0-2.9	2.0-4.0	.20	.20	4	2	134
	3-21	-65-	-20-	10-15- 20	1.50-1.70	14.11-42.34	0.11-0.15	0.0-2.9	1.0-2.0	.32	.32			
	21-60	-91-	- 2-	5- 8- 10	1.40-1.60	42.34-141.14	0.04-0.08	0.0-2.9	0.5-1.0	.05	.17			
MtA—Moulton fine sandy loam, 0 to 1 percent slopes														
Moulton	0-3	-65-	-20-	10-15- 20	1.50-1.70	14.11-42.34	0.13-0.15	0.0-2.9	2.0-4.0	.24	.24	4	3	86
	3-21	-65-	-20-	10-15- 20	1.50-1.70	14.11-42.34	0.11-0.15	0.0-2.9	1.0-2.0	.32	.32			
	21-60	-91-	- 2-	5- 8- 10	1.40-1.60	42.34-141.14	0.04-0.08	0.0-2.9	0.5-1.0	.05	.17			

PID001267

Physical Soil Properties– Canyon Area, Idaho

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/in*	*Pct*	*Pct*					
MuA—Moulton fine sandy loam, saline, 0 to 1 percent slopes														
Moulton, saline	0-3	-65-	-20-	10-15- 20	1.50-1.70	14.11-42.34	0.13-0.15	0.0-2.9	2.0-4.0	.24	.24	4	3	86
	3-21	-65-	-20-	10-15- 20	1.50-1.70	14.11-42.34	0.11-0.15	0.0-2.9	1.0-2.0	.32	.32			
	21-60	-91-	- 2-	5- 8- 10	1.40-1.60	42.34-141.14	0.04-0.08	0.0-2.9	0.5-1.0	.05	.17			
MvA—Moulton loam, 0 to 1 percent slopes														
Moulton	0-3	-44-	-41-	10-15- 20	1.40-1.50	4.00-14.11	0.16-0.18	0.0-2.9	2.0-4.0	.37	.37	4	5	56
	3-21	-65-	-20-	10-15- 20	1.50-1.70	14.11-42.34	0.11-0.15	0.0-2.9	1.0-2.0	.32	.32			
	21-60	-91-	- 2-	5- 8- 10	1.40-1.60	42.34-141.14	0.04-0.08	0.0-2.9	0.5-1.0	.05	.17			
MwA—Moulton loam, saline, 0 to 1 percent slopes														
Moulton, saline	0-3	-44-	-41-	10-15- 20	1.40-1.50	4.00-14.11	0.16-0.18	0.0-2.9	2.0-4.0	.37	.37	4	5	56
	3-21	-65-	-20-	10-15- 20	1.50-1.70	14.11-42.34	0.11-0.15	0.0-2.9	1.0-2.0	.32	.32			
	21-60	-91-	- 2-	5- 8- 10	1.40-1.60	42.34-141.14	0.04-0.08	0.0-2.9	0.5-1.0	.05	.17			
No—Notus soils														
Notus	0-1	-69-	-24-	5- 8- 10	1.60-1.70	14.11-42.34	0.11-0.13	0.0-2.9	0.5-1.0	.28	.28	3	4	86
	1-14	-69-	-24-	5- 8- 10	1.60-1.70	14.11-42.34	0.11-0.13	0.0-2.9	0.5-1.0	.28	.28			
	14-60	—	—	2- 5- 7	1.60-1.70	141.14	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			

PID001268

Physical Soil Properties– Canyon Area, Idaho														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
OgA—Oliaga loam, 0 to 1 percent slopes														
Oliaga	0-8	-43-	-40-	10-18- 25	1.25-1.40	4.00-14.11	0.16-0.18	0.0-2.9	1.0-3.0	.24	.24	4	4L	86
	8-35	-45-	-43-	5-12- 18	1.30-1.45	4.00-14.11	0.13-0.18	0.0-2.9	0.0-1.0	.20	.20			
	35-60	—	—	0- 5- 10	1.30-1.60	141.14	0.03-0.06	0.0-2.9	0.0-0.5	.10	.20			
OlA—Oliaga loam, saline-alkali, 0 to 1 percent slopes														
Oliaga, saline-alkali	0-8	-43-	-40-	10-18- 25	1.25-1.40	4.00-14.11	0.16-0.18	0.0-2.9	1.0-3.0	.24	.24	4	4L	86
	8-35	-45-	-43-	5-12- 18	1.30-1.45	4.00-14.11	0.13-0.18	0.0-2.9	0.0-1.0	.20	.20			
	35-60	—	—	0- 5- 10	1.30-1.60	141.14	0.03-0.06	0.0-2.9	0.0-0.5	.10	.20			
PhA—Power silt loam, 0 to 1 percent slopes														
Power	0-9	-11-	-69-	18-20- 22	1.30-1.50	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	5	6	48
	9-17	- 7-	-67-	24-27- 35	1.20-1.50	1.41-4.23	0.16-0.21	3.0-5.9	0.5-1.0	.43	.43			
	17-60	-30-	-53-	15-18- 20	1.35-1.55	4.00-14.11	0.16-0.18	0.0-2.9	0.0-0.5	.37	.37			
PhB—Power silt loam, 1 to 3 percent slopes														
Power	0-9	-11-	-69-	18-20- 22	1.30-1.50	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	5	6	48
	9-17	- 7-	-67-	24-27- 35	1.20-1.50	1.41-4.23	0.16-0.21	3.0-5.9	0.5-1.0	.43	.43			
	17-60	-30-	-53-	15-18- 20	1.35-1.55	4.00-14.11	0.16-0.18	0.0-2.9	0.0-0.5	.37	.37			

PID001269

Physical Soil Properties– Canyon Area, Idaho														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
PpA—Power-Purdam silt loams, 0 to 1 percent slopes														
Power	0-9	-11-	-69-	18-20- 22	1.30-1.50	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	5	6	48
	9-17	- 7-	-67-	24-27- 35	1.20-1.50	1.41-4.23	0.16-0.21	3.0-5.9	0.5-1.0	.43	.43			
	17-60	-30-	-53-	15-18- 20	1.35-1.55	4.00-14.11	0.16-0.18	0.0-2.9	0.0-0.5	.37	.37			
Purdam	0-10	-10-	-68-	20-23- 25	1.50-1.60	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	2	6	48
	10-13	- 7-	-64-	25-29- 32	1.40-1.60	1.41-4.23	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
	13-24	-12-	-70-	12-19- 25	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.37	.37			
	24-38	—	—	—	—	0.01-0.42	0.00	—	—					
	38-60	-66-	-22-	5-10- 15	1.60-1.75	14.11-42.34	—	0.0-2.9	0.0-0.5	.28	.37			
PpB—Power-Purdam silt loams, 1 to 3 percent slopes														
Power	0-9	-11-	-69-	18-20- 22	1.30-1.50	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	5	6	48
	9-17	- 7-	-67-	24-27- 35	1.20-1.50	1.41-4.23	0.16-0.21	3.0-5.9	0.5-1.0	.43	.43			
	17-60	-30-	-53-	15-18- 20	1.35-1.55	4.00-14.11	0.16-0.18	0.0-2.9	0.0-0.5	.37	.37			
Purdam	0-10	-10-	-68-	20-23- 25	1.50-1.60	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	2	6	48
	10-13	- 7-	-64-	25-29- 32	1.40-1.60	1.41-4.23	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
	13-24	-12-	-70-	12-19- 25	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.37	.37			
	24-38	—	—	—	—	0.01-0.42	0.00	—	—					
	38-60	-66-	-22-	5-10- 15	1.60-1.75	14.11-42.34	—	0.0-2.9	0.0-0.5	.28	.37			

PID001270

Physical Soil Properties– Canyon Area, Idaho

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
PpC—Power-Purdam silt loams, 3 to 7 percent slopes														
Power	0-9	-11-	-69-	18-20- 22	1.30-1.50	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	5	6	48
	9-17	- 7-	-67-	24-27- 35	1.20-1.50	1.41-4.23	0.16-0.21	3.0-5.9	0.5-1.0	.43	.43			
	17-60	-30-	-53-	15-18- 20	1.35-1.55	4.00-14.11	0.16-0.18	0.0-2.9	0.0-0.5	.37	.37			
Purdam	0-10	-10-	-68-	20-23- 25	1.50-1.60	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	2	6	48
	10-13	- 7-	-64-	25-29- 32	1.40-1.60	1.41-4.23	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
	13-24	-12-	-70-	12-19- 25	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.37	.37			
	24-38	—	—	—	—	0.01-0.42	0.00	—	—					
	38-60	-68-	-22-	5-10- 15	1.60-1.75	14.11-42.34	—	0.0-2.9	0.0-0.5	.28	.37			
PpD—Power-Purdam silt loams, 7 to 12 percent slopes														
Power	0-9	-11-	-69-	18-20- 22	1.30-1.50	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	5	6	48
	9-17	- 7-	-67-	24-27- 35	1.20-1.50	1.41-4.23	0.16-0.21	3.0-5.9	0.5-1.0	.43	.43			
	17-60	-30-	-53-	15-18- 20	1.35-1.55	4.00-14.11	0.16-0.18	0.0-2.9	0.0-0.5	.37	.37			
Purdam	0-10	-10-	-68-	20-23- 25	1.50-1.60	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	2	6	48
	10-13	- 7-	-64-	25-29- 32	1.40-1.60	1.41-4.23	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
	13-24	-12-	-70-	12-19- 25	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.37	.37			
	24-38	—	—	—	—	0.01-0.42	0.00	—	—					
	38-60	-68-	-22-	5-10- 15	1.60-1.75	14.11-42.34	—	0.0-2.9	0.0-0.5	.28	.37			

PID001271

Physical Soil Properties– Canyon Area, Idaho														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/in*	*Pct*	*Pct*					
PrA—Purdam silt loam, 0 to 1 percent slopes														
Purdam	0-10	-10-	-68-	20-23- 25	1.50-1.60	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	2	6	48
	10-13	- 7-	-64-	25-29- 32	1.40-1.60	1.41-4.23	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
	13-24	-12-	-70-	12-19- 25	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.37	.37			
	24-38	—	—	—	—	0.01-0.42	0.00	—	—					
	38-60	-68-	-22-	5-10- 15	1.60-1.75	14.11-42.34	—	0.0-2.9	0.0-0.5	.28	.37			
PrB—Purdam silt loam, 1 to 3 percent slopes														
Purdam	0-10	-10-	-68-	20-23- 25	1.50-1.60	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	2	6	48
	10-13	- 7-	-64-	25-29- 32	1.40-1.60	1.41-4.23	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
	13-24	-12-	-70-	12-19- 25	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.37	.37			
	24-38	—	—	—	—	0.01-0.42	0.00	—	—					
	38-60	-68-	-22-	5-10- 15	1.60-1.75	14.11-42.34	—	0.0-2.9	0.0-0.5	.28	.37			
PrC—Purdam silt loam, 3 to 7 percent slopes														
Purdam	0-10	-10-	-68-	20-23- 25	1.50-1.60	4.00-14.11	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	2	6	48
	10-13	- 7-	-64-	25-29- 32	1.40-1.60	1.41-4.23	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
	13-24	-12-	-70-	12-19- 25	1.50-1.60	4.00-14.11	0.16-0.21	0.0-2.9	0.0-0.5	.37	.37			
	24-38	—	—	—	—	0.01-0.42	0.00	—	—					
	38-60	-68-	-22-	5-10- 15	1.60-1.75	14.11-42.34	—	0.0-2.9	0.0-0.5	.28	.37			

PID001272

Physical Soil Properties– Canyon Area, Idaho														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
Re—Riverwash														
Riverwash	0-60	—	—	—	—	—	—	—	—					
Tc—Terrace escarpments														
Terrace escarpments	0-5	-64-	-27-	5-10- 15	1.35-1.65	4.00-14.11	0.11-0.15	0.0-2.9	0.5-1.0	.20	.24	2	3	86
	5-60	-64-	-27-	5-10- 15	1.35-1.65	4.00-14.11	0.11-0.15	0.0-2.9	0.5-1.0	.20	.24			
W—Water														
Water	—	—	—	—	—	—	—	—	—					

Data Source Information

Soil Survey Area: Canyon Area, Idaho
Survey Area Data: Version 8, Jun 25, 2008

PID001273

PID001274

FRANKLIN DITCH

FID_1904_N	Id	Name	Length	FID_soils_	AREASYMBOL	SPATIALVER	MUSYM	MUKEY	Sec_Length	
2	0	Franklin Ditch	0.00	15	ID665	2	BdA	80725	268	
1	0	Franklin Ditch	0.00	26	ID665	2	FaA	80753	2223	
1	0	Franklin Ditch	0.00	28	ID665	2	FaA	80753	1353	
2	0	Franklin Ditch	0.00	28	ID665	2	FaA	80753	583	
1	0	Franklin Ditch	0.00	31	ID665	2	Gp	80766	15	(all to MtA)
1	0	Franklin Ditch	0.00	16	ID665	2	MtA	80808	2806	
1	0	Franklin Ditch	0.00	29	ID665	2	MtA	80808	153	
2	0	Franklin Ditch	0.00	20	ID665	2	MtA	80808	318	
1	0	Franklin Ditch	0.00	14	ID665	2	MuA	80810	94	
1	0	Franklin Ditch	0.00	27	ID665	2	MuA	80810	1844	
2	0	Franklin Ditch	0.00	17	ID665	2	MvA	80811	302	
1	0	Franklin Ditch	0.00	22	ID665	2	MwA	80812	167	
2	0	Franklin Ditch	0.00	10	ID665	2	MwA	80812	2411	
2	0	Franklin Ditch	0.00	22	ID665	2	MwA	80812	3114	
2	0	Franklin Ditch	0.00	23	ID665	2	OgA	80821	1459	
1	0	Franklin Ditch	0.00	30	ID665	2	Tc	80863	527	
									17637	

Soil	i	Total Length (ft)	S (cfs/mile)		S (cfs)
BdA	1.00	268	0.80		0.04
FaA	2.20	4159	1.76		1.39
MtA	2.20	3292	1.76		1.10
MuA	2.20	1938	1.76		0.65
MvA	2.20	302	1.76		0.10
MwA	2.20	5692	1.76		1.90
OgA	2.50	1459	2.00		0.55
Tc	1.50	527	1.20		0.12
		Total S =			5.84
		avg loss (cfs/mi) =			1.75

$S = 0.0667iW$

S = seepage loss (cfs/mile)
i = seepage rate (ft/day)
W = top width of water surface (ft)
0.0667 = conversion factor

W = 12 ft (based on measurements of Highline Canal)

PID001275

MASON CREEK DITCH

FID_1904_M	Id	Name	Length	FID_soils_	AREASYMBOL	SPATIALVER	MUSYM	MUKEY	Sec_Length
4	0	Mason Creek Ditch	0.00	7	ID665	2	BdA	80725	679
5	0	Mason Creek Ditch	0.00	7	ID665	2	BdA	80725	1980
5	0	Mason Creek Ditch	0.00	6	ID665	2	BsA	80730	886
6	0	Mason Creek Ditch	0.00	6	ID665	2	BsA	80730	296
3	0	Mason Creek Ditch	0.00	9	ID665	2	FaA	80753	683
6	0	Mason Creek Ditch	0.00	1	ID665	2	FaA	80753	366
6	0	Mason Creek Ditch	0.00	4	ID665	2	LtA	80792	734
6	0	Mason Creek Ditch	0.00	3	ID665	2	MtA	80808	248
3	0	Mason Creek Ditch	0.00	8	ID665	2	MuA	80810	524
4	0	Mason Creek Ditch	0.00	12	ID665	2	MuA	80810	256
6	0	Mason Creek Ditch	0.00	2	ID665	2	MuA	80810	7524
4	0	Mason Creek Ditch	0.00	17	ID665	2	MvA	80811	314
3	0	Mason Creek Ditch	0.00	10	ID665	2	MwA	80812	590
4	0	Mason Creek Ditch	0.00	10	ID665	2	MwA	80812	86
6	0	Mason Creek Ditch	0.00	5	ID665	2	No	80815	448
									15614

Soil	i	Total Length (ft)	S (cfs/mile)		S (cfs)
BdA	1.00		2659	0.80	0.40
BsA	1.00		1182	0.80	0.18
FaA	2.20		1049	1.76	0.35
LtA	1.75		734	1.40	0.19
MtA	2.20		248	1.76	0.08
MuA	2.20		8304	1.76	2.77
MvA	2.20		314	1.76	0.10
MwA	2.20		676	1.76	0.23
No	2.50		448	2.00	0.17
		Total S =			4.48
		avg loss (cfs/mi) =			1.51

S = 0.0667iW

S = seepage loss (cfs/mile)
i = seepage rate (ft/day)
W = top width of water surface (ft)
0.0667 = conversion factor

W = 12 ft (based on measurements of Highline Canal)

PID001276

STRAYHORN SLOUGH

FID_1904_N	Id	Name	Length	FID_soils_	AREASYMBOL	SPATIALVER	MUSYM	MUKEY	Sec_Length	
0	0	Strayhorn Slough	0.00	25	ID665	2	Ch	80737	823	
0	0	Strayhorn Slough	0.00	18	ID665	2	MoA	80807	2235	
0	0	Strayhorn Slough	0.00	16	ID665	2	MtA	80808	3633	
0	0	Strayhorn Slough	0.00	14	ID665	2	MuA	80810	998	
0	0	Strayhorn Slough	0.00	19	ID665	2	MvA	80811	481	
0	0	Strayhorn Slough	0.00	13	ID665	2	No	80815	1276	
0	0	Strayhorn Slough	0.00	11	ID665	2	Re	80853	410	
0	0	Strayhorn Slough	0.00	21	ID665	2	Re	80853	649	
0	0	Strayhorn Slough	0.00	24	ID665	2	Re	80853	446	
0	0	Strayhorn Slough	0.00	0	ID665	2	W	80893	985	(all to Re)
									11936	

Soil	i	Total Length (ft)	S (cfs/mile)	S (cfs)
Ch	2.20	823	1.76	0.27
MoA	2.20	2235	1.76	0.75
MtA	2.20	3633	1.76	1.21
MuA	2.20	998	1.76	0.33
MvA	2.20	481	1.76	0.16
No	2.50	1276	2.00	0.48
Re	2.50	2490	2.00	0.94
		Total S =		4.15
		avg loss (cfs/mi) =		1.84

$S = 0.0667iW$

S = seepage loss (cfs/mile)
i = seepage rate (ft/day)
W = top width of water surface (ft)
0.0667 = conversion factor

W = 12 ft (based on measurements of Highline Canal)

PID001277

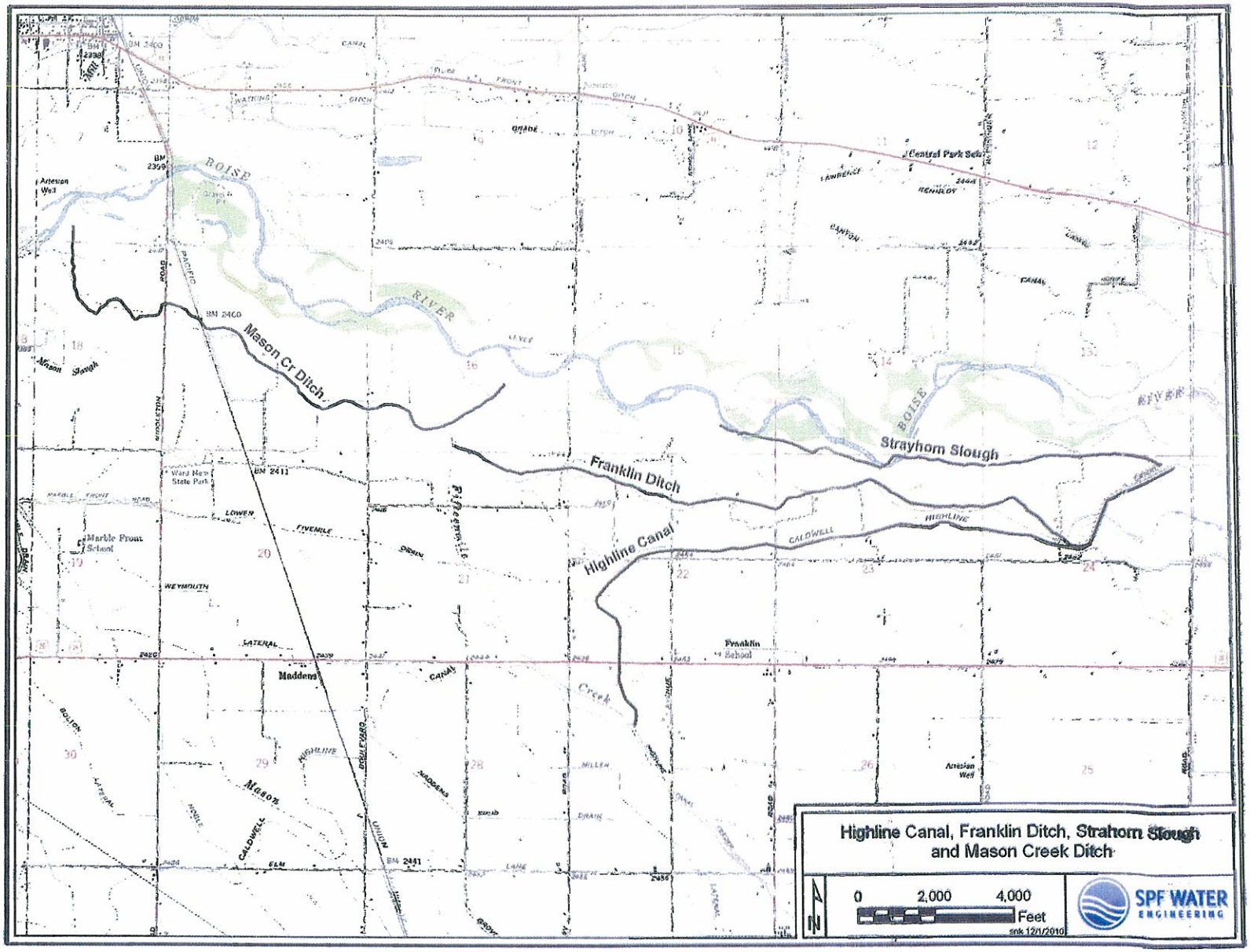
HIGHLINE CANAL

FID_Highli	Id	FID_soilmu		AREASYMBOL	SPATIALVEF	MUSYM	MUKEY	Sect_Lengt	
0	0		4240	ID665	2	BdA	80725	620	
0	0		3917	ID665	2	Ch	80737	255	
0	0		3986	ID665	2	Gp	80766	436	(1/2 to MtA, 1/2 to Tc)
0	0		3819	ID665	2	MoA	80807	343	
0	0		3803	ID665	2	MtA	80808	1322	
0	0		3956	ID665	2	MtA	80808	652	
0	0		3987	ID665	2	MvA	80811	242	
0	0		3883	ID665	2	No	80815	525	
0	0		3976	ID665	2	PhA	80831	1518	
0	0		4052	ID665	2	PhA	80831	665	
0	0		4020	ID665	2	PhB	80832	689	
0	0		3965	ID665	2	PpA	80838	1149	
0	0		4209	ID665	2	PpD	80841	329	
0	0		3959	ID665	2	Tc	80863	11487	
0	0		3865	ID665	2	W	80893	49	(all to MtA)
								20281	

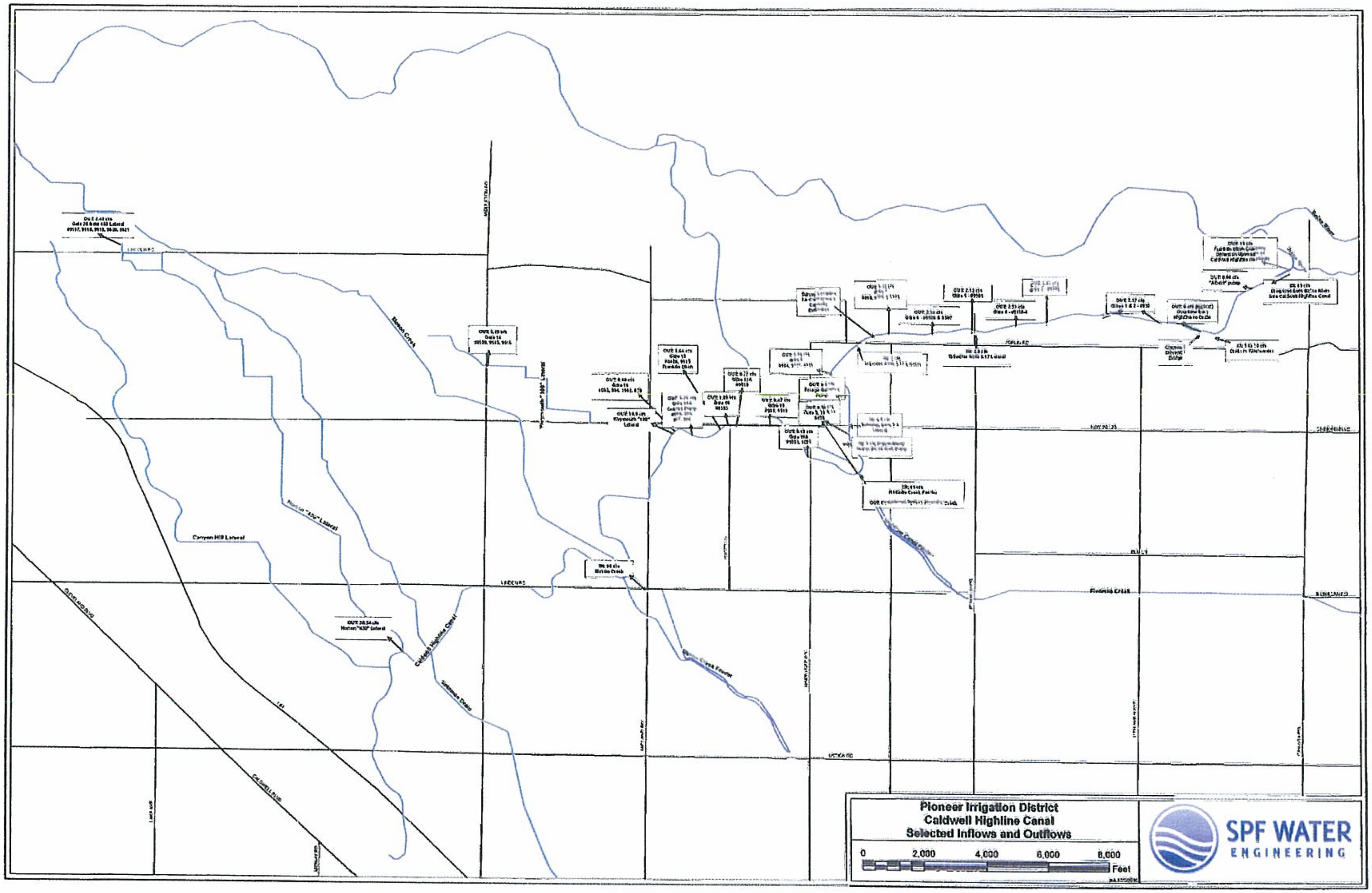
Soil	i	Total Length (ft)	S (cfs/mile)	S (cfs)
BdA	1.00	620	0.80	0.09
Ch	2.20	255	1.76	0.09
MoA	2.20	343	1.76	0.11
MtA	2.20	2241	1.76	0.75
MvA	2.20	242	1.76	0.08
No	2.50	525	2.00	0.20
PhA	1.50	2183	1.20	0.50
PhB	1.50	689	1.20	0.16
PpA	1.50	1149	1.20	0.26
PpD	1.50	329	1.20	0.07
Tc	1.50	11705	1.20	2.66
		Total S =		4.97
		avg loss (cfs/mi) =		1.29

$S = 0.0667iW$

S = seepage loss (cfs/mile) W = 12 ft (based on measurements of Highline Canal)
i = seepage rate (ft/day)
W = top width of water surface (ft)
0.0667 = conversion factor


Mason Cr Ditch
Franklin Ditch
Strayhorn Slough
Highline Canal
BOISE
RIVER
Central Park Sch
Marble Front School
Ward New State Park
Maddens
Franklin School
Artesian Well
Mason Slough
Mason
Creek
Highline Canal, Franklin Ditch, Strahorn Slough and Mason Creek Ditch
0
2,000
4,000
Feet
snk 12/1/2010
SPF WATER ENGINEERING

PID001278


Pioneer Irrigation District
Caldwell Highline Canal
Selected Inflows and Outflows
0 2,000 4,000 6,000 8,000
Feet
SPF WATER
ENGINEERING

PID001208

Franklin (Clayton) Headgate above Highline Canal Headgate
11/9/2010 Survey
Scott King, SPF Water Engineering

6' wide box, 8' long in front, with two 4' slide gates.
Slide gates may be used for measurement and/or control.

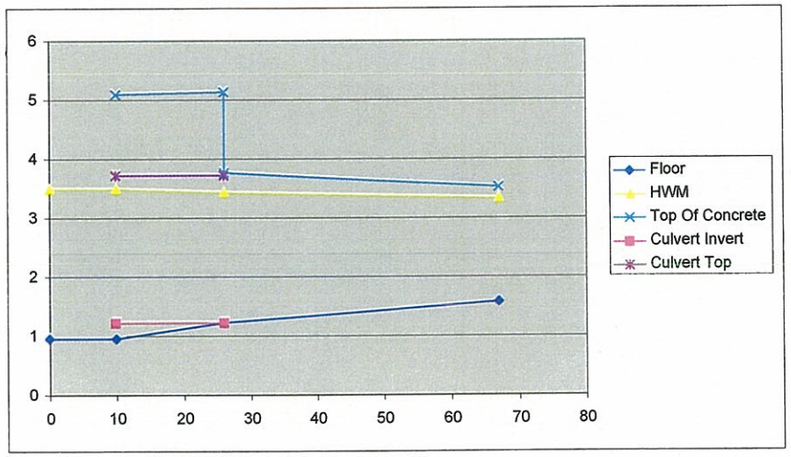
Reference Elevation: 10 ft, datum

Point	Rod Height	Elevation	X (ft)	Depth	Note	
Intake Floor	9.01	0.99	0		floor	
Top of Concrete - Intake Structure	4.87	5.13	10		TOC	
Intake Floor at Culver Entrance	9.01	0.99	10		floor	
Culvert Intake Invert	8.74	1.26	10		culvert	assumed culvert installed level
HWM at Structure Entrance	6.49	3.51	10		HWM	
HWM at Culvert Entrance	6.49	3.51	10		HWM	
Top of Concrete - Exit Structure	4.83	5.17	26		TOC	
HWM at Culvert Exit	6.55	3.45	26	2.19	HWM	
Floor - Exit Structure	8.74	1.26	26		floor & Culvert	
Top of Concrete Ditch - Exit	6.2	3.8	26		TOC	
Floor - downstream	8.39	1.61	67		floor	
Top of concrete - downstream	6.45	3.55	67		TOC	
HWM - downstream	6.65	3.35	67	1.74	HWM	
Culvert Intake Top		3.76	10		culvert	assumed, entrance blocked for winter during inspection
Culvert Exit Top		3.76	26		culvert	

Slope 0.0024 ft/ft, culvert exit to downstream

Check Critical Depth in Trapezoidal Ditch
Froude No Fr = 1 = V/sqrt(g*D)
From HY8 analysis

Q	15	cfs	enter Q
Depth	1.7	ft	enter Depth
Area	4.6	sqft	
Velocity	3.3	fps	
Top Width	4.4	top width (1 + 2*depth)	
Hydraulic Depth, Dh = A/T	1.04	ft, hydraulic depth	
Froude No	0.56	Subcritical flow	
At Fr = 1, V=	5.80	fps, velocity at critical flow	
At Fr = 1, Q =	26.6	cfs at critical flow	



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EXITLOSSOPTION       0
PROJTITLE
PROJDESIGNER
STARTPROJNOTES
ENDPROJNOTES
PROJDATE             40496.629838
NUMCROSSINGS         1
STARTCROSSING        Franklin Ditch Co Diversion
STARTCROSSNOTES
ENDCROSSNOTES
DISCHARGERANGE       0.000000   15.000000  20.000000
TAILWATERTYPE        2
CHANNELGEOMETRY      1.000000   1.000000   0.001500   0.015000   1.260000
TWRATINGCURVE        1.260000   0.000000   0.000000   0.000000
                     1.885466   1.967201   0.058544   0.515836
                     2.155992   2.354612   0.083865   0.531958
                     2.356793   2.608980   0.102660   0.541804
                     2.521695   2.803508   0.118095   0.548985
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ROADWIDTH            16.000000
WEIRCOEFF            0.000000
SURFACE              2
NUMSTATIONS          2
ROADWAYSECDATA       0.000000   5.000000
                     50.000000  5.000000
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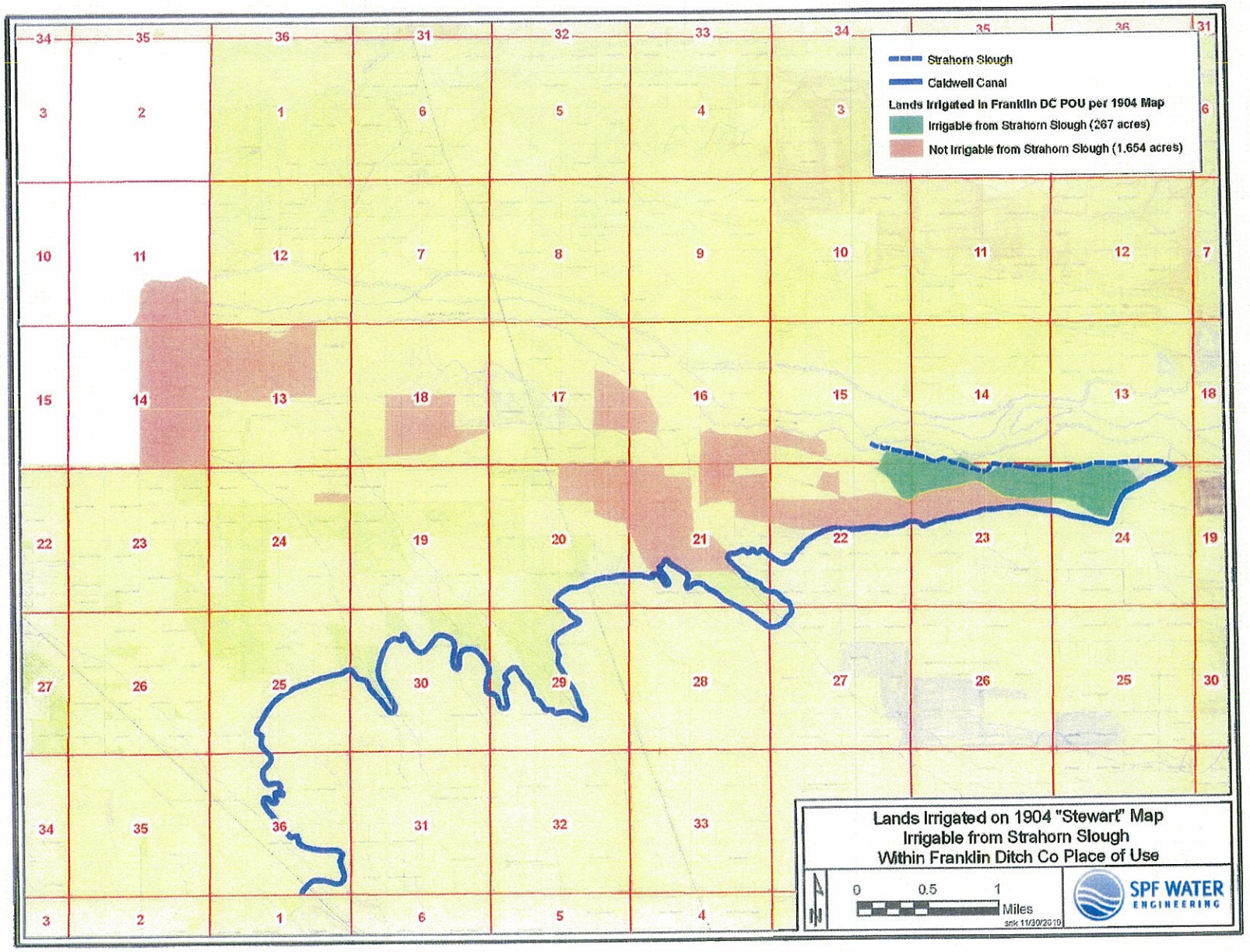
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Not Irrigable from Strahorn Slough (1,654 acres)
Lands Irrigated on 1904 "Stewart" Map
Irrigable from Strahorn Slough
Within Franklin Ditch Co Place of Use
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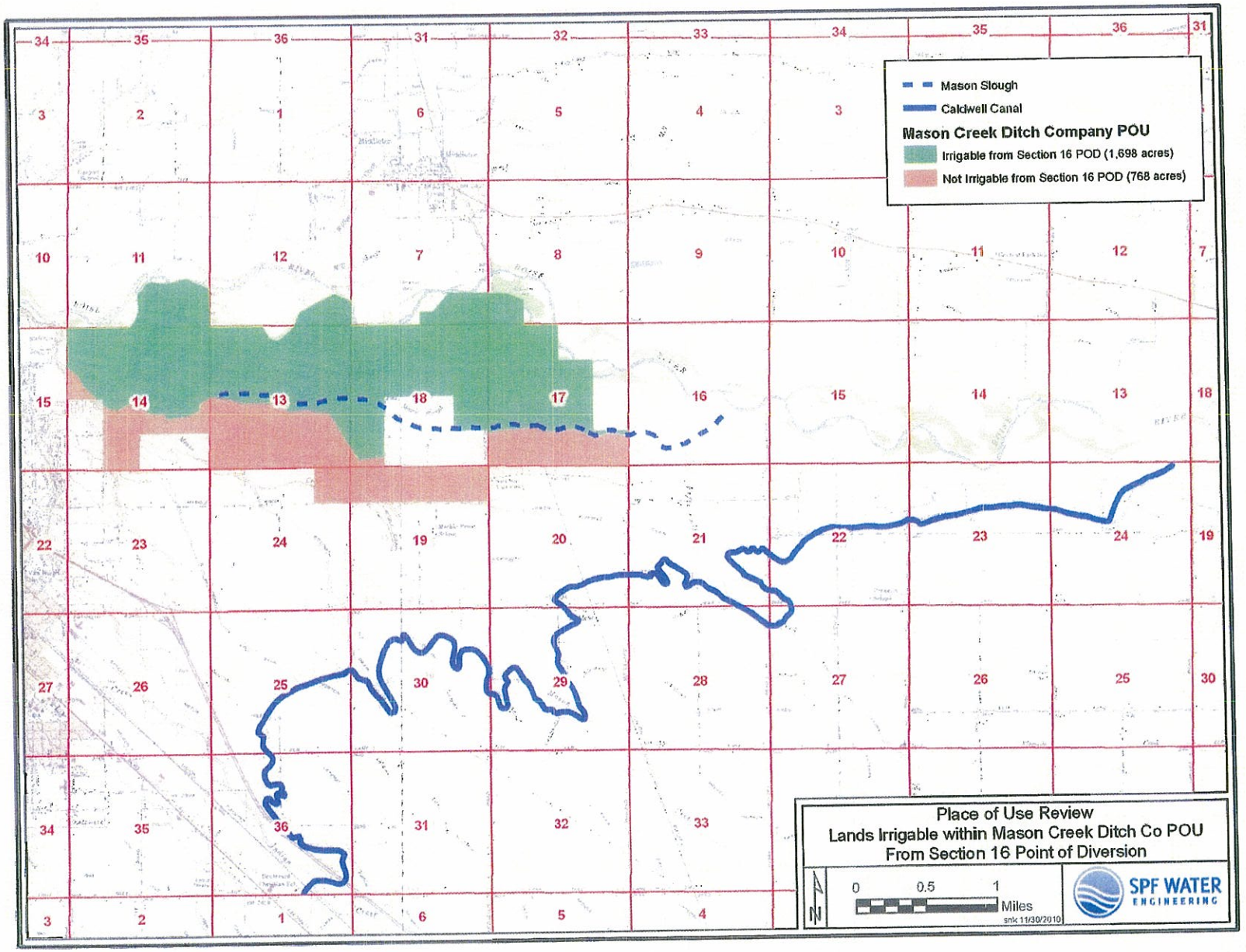
1
Miles
snk 11/30/2019
SPF WATER ENGINEERING

PID001211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Mason Creek Ditch Company POU
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Place of Use Review
Lands Irrigable within Mason Creek Ditch Co POU
From Section 16 Point of Diversion
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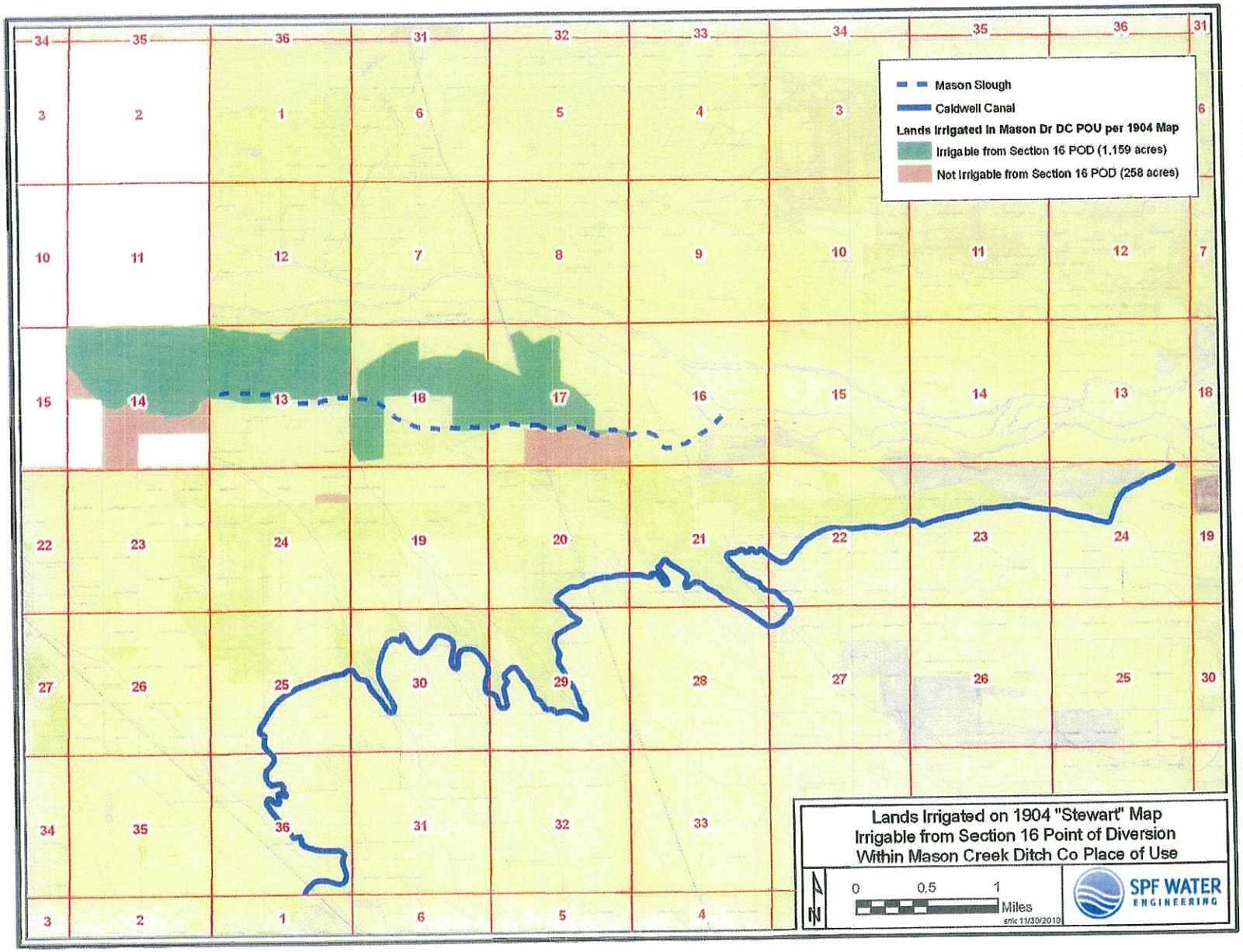
Miles
snk 11/30/2010
SPF WATER ENGINEERING

PID001212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Caldwell Canal
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Lands Irrigated on 1904 "Stewart" Map
Irrigable from Section 16 Point of Diversion
Within Mason Creek Ditch Co Place of Use
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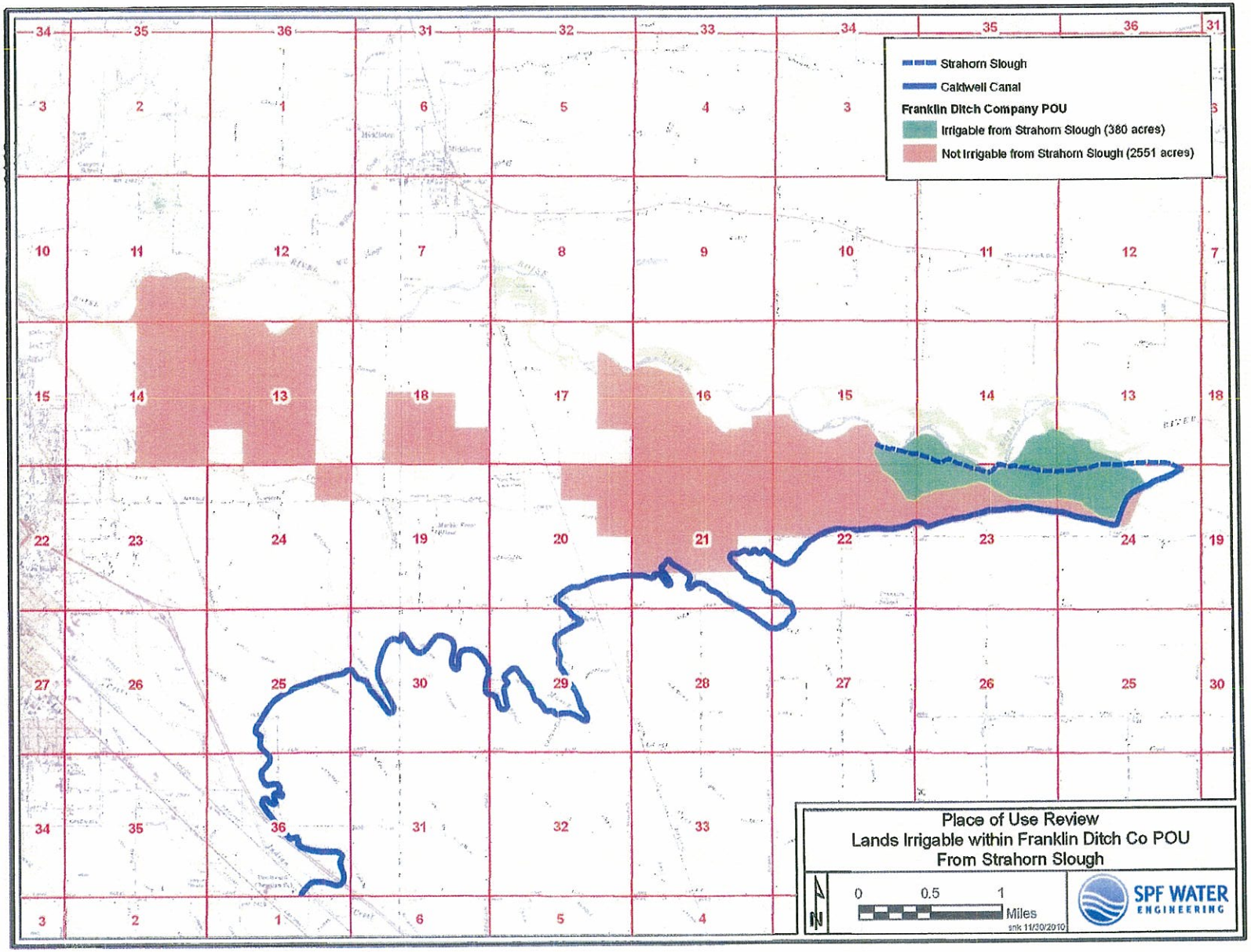
SPF WATER ENGINEERING

PID001213


Strahorn Slough
Caldwell Canal
Franklin Ditch Company POU
Irrigable from Strahorn Slough (380 acres)
Not Irrigable from Strahorn Slough (2551 acres)
Place of Use Review
Lands Irrigable within Franklin Ditch Co POU
From Strahorn Slough
N
0
0.5
1
Miles
snk 11/30/2010
SPF WATER ENGINEERING

PID001214

SPF WATER ENGINEERING

DRAFT

MEMORANDUM

DATE: November 30, 2010

TO: Dylan Lawrence

FROM: Scott King

RE: Highline Canal Measuring Device

Job: 272.0160

Pioneer Irrigation District utilizes submerged orifices for measuring discharge into the Highline Canal. Figure 1 shows a basic submerged orifice measuring device. The orifices are located at the upstream side of the canal's flow control structure at the point of diversion from the Boise River (see Figure 2 and Figure 3). The orifices are adjustable, but are typically set and maintained with a 20 ft^2 opening size so that standard tables can be used for determining discharge. Upstream and downstream water levels are measured in stilling wells located in the CMP building. One of these measures the water level in the river, upstream of the orifice, while the second measures the water level in the pool, downstream of the orifice. "Head" is the difference in the two water levels (upstream minus downstream). Discharge is adjusted and controlled by manipulating the sluice gates located on the downstream end of the control structure (see Figure 4 and Figure 5). Discharge rates are determined using a standard rectangular submerged orifice table[1], a copy of which is attached.

Submerged orifices conserve head and are often used where fall is insufficient for weirs. A disadvantage of the submerged orifice is that accumulations of submerged debris or sand and sediment upstream from the orifice may prevent accurate measurements. When compared to most weirs or flumes, the submerged orifice is more susceptible to interference from weeds and trash and such clogging is not easily visible[2]. When debris builds upstream from the orifice, flow through the orifice decreases while head differences between the up

---

[1] Water Measurement Manual, U.S. Bureau of Reclamation, 1984 (revised printing), Table 31, pg 293.
[2] IBID, pg 90.

300 E. Mallard Drive, Suite 350, Boise, Idaho 83706 Tel: 208-383-4140 Fax: 208-383-4156

and down stream sides often increases. Higher head readings translate to higher discharge rates in the standard discharge tables.

Mark Zirschky, Superintendent with Pioneer Irrigation District, has described debris buildup and resulting measuring problems. In particular, Mark has noted that moss builds up in front of the orifice and in the pool between the orifice and the controlling sluice gates. Debris buildup in either location can impede flows. Buildup in front of the orifice is a particular problem because flow is impeded while at the same time head readings may indicate high flows. Moss also builds up in the stilling well inlets and can block the passageway leading to inaccurate measurements. Mark has described masses of moss which flow into the structure frequently during the irrigation season and stresses the importance of cleaning moss prior to making flow readings[3].

At a typical discharge of 40 cfs, the 20 ft^2 submerged orifice would operate at a head difference of 0.13 feet. If debris resulted in a blockage of 50% of the open area, the same 0.13 head difference would yield a discharge of about 20 cfs. However, if the same 40 cfs discharge were maintained with 50% open area blocked, head would be approximately 0.50 feet. Using the standard 20 ft^2 orifice table with a head of 0.50 feet yields an apparent discharge of 79 cfs.

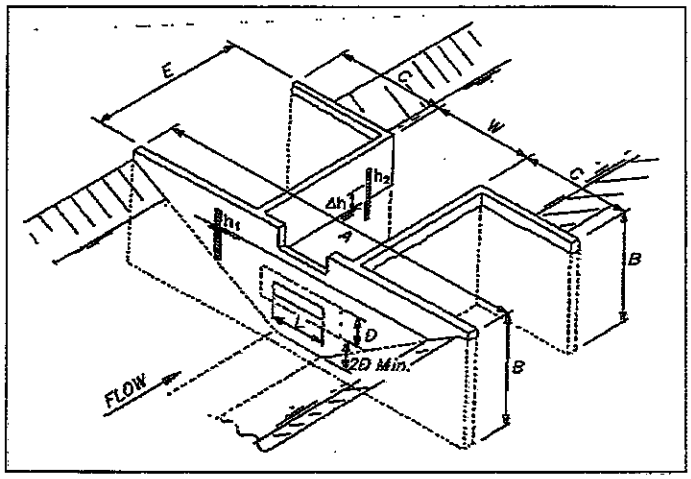
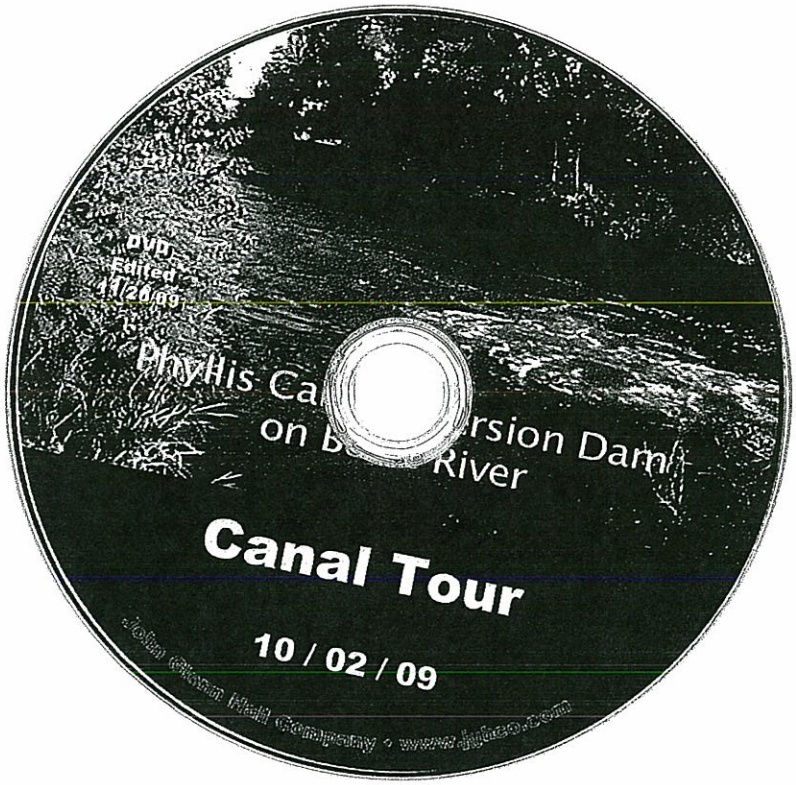


Figure 1: Submerged orifice measurement structure viewed from upstream (courtesy USBR Water Measurement Manual).

[3] Personal communication with Mark Zirschky, November 24, 2010.

Figure 2: Highline Canal headgate in photo background. Orifice plates are mounted to the face of the structure. Photo date September 1, 2010.

Figure 3: Upstream side of Highline Canal headgate with orifice plates shown. Note debris buildup on channel bottom in front of gates and piles of debris on either bank. Photo date November 9, 2010.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Canal Tour
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PID001220

58TH CONGRESS, 3d Session. } HOUSE OF REPRESENTATIVES. { DOCUMENT No. 28.

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

THIRD ANNUAL REPORT

OF THE

RECLAMATION SERVICE

1903-4

F. H. NEWELL
Chief Engineer

WASHINGTON
GOVERNMENT PRINTING OFFICE
1905

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LETTERS OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
Washington, December 5, 1904.

SIR: Section 2 of the act approved June 17, 1902, entitled "An act appropriating the receipts from the sale and disposal of public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands," provides:

> That the Secretary of the Interior is hereby authorized and directed to make examinations and surveys for, and to locate and construct, as herein provided, irrigation works for the storage, diversion, and development of waters, including artesian wells, and to report to Congress at the beginning of each regular session as to the results of such examinations and surveys, giving estimates of cost of all contemplated works, the quantity and location of the lands which can be irrigated therefrom, and all facts relative to the practicability of each irrigation project; also the cost of works in process of construction, as well as of those which have been completed.

Complying with the above provision, I have the honor to hand you herewith copy of a communication, dated the 30th ultimo, from the Director of the Geological Survey, transmitting the report contemplated by the section above quoted.

Very respectfully, E. A. HITCHCOCK,
Secretary.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Washington, D. C., November 30, 1904.

SIR: I have the honor to transmit herewith a report of the work done and in progress under the reclamation act approved by the President on June 17, 1902, together with other information essential to an understanding of the subject.

This report supplements and brings up to date the information given in the First Annual Report of the Reclamation Service, issued as House Document No. 79, Fifty-seventh Congress, second session, and in the Second Annual Report of the Reclamation Service, issued as House Document No. 44, Fifty-eighth Congress, second session. Unlike its predecessors, this report is submitted without illustrations, in order that it may be printed immediately and be available for use,

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and legislators many details of State laws or proposed amendments. It is very important to secure as nearly a uniform system of laws in the various States as may be consistent with the different physical conditions, and it is believed that as time goes on the State laws will be brought into greater harmony with one another and with the necessities of irrigation development.

DISTRIBUTION OF EXPENDITURE.

Section 9 provides that the funds arising in each State and Territory shall be divided into two portions, a major and minor portion, and that the major portion shall be expended in the State in which it arises. For convenience it has been assumed that the major portion is 51 per cent of the fund. This may be termed the restricted portion, since its expenditure is restricted to the State under consideration.

The following table shows the condition of the restricted and unrestricted portions for the various States and Territories on the assumed basis of 51 per cent restricted and 49 per cent unrestricted:

Division of reclamation fund.

State or Territory.	Aggregate.	Restricted portion, or 51 per cent.
Arizona	$193,399.73	$98,633.86
California	1,824,569.32	930,530.35
Colorado	1,651,187.75	842,105.75
Idaho	1,651,477.78	842,253.67
Kansas	109,450.78	55,819.90
Montana	1,797,157.70	916,550.43
Nebraska	492,713.47	251,283.87
Nevada	53,761.42	27,418.32
New Mexico	388,105.73	197,933.92
North Dakota	3,032,799.46	1,852,727.73
Oklahoma	2,637,073.59	1,344,907.53
Oregon	4,153,582.95	2,120,877.31
South Dakota	805,483.79	410,796.73
Utah	284,413.58	145,050.93
Washington	2,599,659.65	1,325,826.42
Wyoming	990,755.93	505,285.52
Total	23,370,592.63	11,868,009.24

RULES AND REGULATIONS.

Section 10 gives general authority to the Secretary to perform necessary acts and make essential regulations, the regulations being promulgated from time to time, as occasion requires, in order that they may be adapted to conditions found in actual practice. The law leaves executive discretion a wide range, and it has not been considered desirable to attempt to anticipate the conditions which might arise, but rather to meet them as they come and to promulgate rules and regulations on the basis of experience.

DECISIONS OF THE SECRETARY OF THE INTERIOR.

The following is a brief statement of decisions of general interest relating to the reclamation act which have been made by the Secretary of the Interior:

WITHDRAWAL OF LANDS.

February 11, 1903.—Two different forms of withdrawal are authorized by section 3 of the reclamation act. The first form provides for withdrawal from public entry of lands required for irrigation works, under which no entries of any kind can be allowed. The second form of withdrawal leaves the land open to homestead entry under the provisions, limitations, charges, terms, and conditions of the act, and is intended to apply to lands irrigable from the works constructed.

September 5, 1903.—There is no authority to make such executive withdrawal of public lands in a State as will reserve the waters of a stream flowing over the same from appropriation under the laws of the State or will in any manner interfere with its laws relating to the control, appropriation, use, or distribution of water.

January 13, 1904.—Withdrawals under the reclamation act operate to withdraw from other disposition all lands within the designated limits to which a right has not vested.

June 28, 1904.—Withdrawal under the second form precludes any other form or mode of entry or appropriation of the land than homestead. Land so withdrawn can not be taken up in lieu of land relinquished to the United States in a forest reserve.

July 12, 1904.—The first form of withdrawal, under which no entries of any kind can be allowed, may be used in all preliminary withdrawals.

RESTORATION OF LANDS.

September 14, 1904.—In an opinion by the assistant attorney-general, approved by the Secretary of the Interior, it is held that when an order of withdrawal is revoked the time for making entries may be fixed at some date in the future, leaving the lands subject to settlement from the date of the order of revocation. This permits a right to attach to such lands, as the result of settlement, in advance

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of the possible filing of an entry for the same land by one who has not settled thereon.

ENTRIES.

November 17, 1902.—There is no authority for specifying any limitation in the area of homestead entries under the reclamation act in advance of a definite determination to enter upon the necessary construction for the project in question and the issuance of the public notice provided for in section 4. This matter was further considered and a similar decision reached by the Secretary on February 11, 1903.

August 21, 1903.—The Reclamation Service is authorized to classify and combine the different subdivisions within lands withdrawn for irrigation under the reclamation act so as to make practically homestead segregations of the entire territory under one project, specifying the particular legal subdivisions that shall constitute each entry as to all public land included in the withdrawal.

July 6, 1903.—Whenever final proof is offered on any desert-land entry for lands within the limits of the withdrawals for the Reclamation Service, an inspection will be made by the engineers of the Reclamation Service to determine whether the entryman has complied with the desert-land laws and regulations.

January 13, 1904.—A withdrawal under the reclamation act becomes operative upon the lands covered by timber and stone applications when no payment has been made and terminates the contingent right of the applicant.

In cases where valid locations of mining claims were made prior to the date of withdrawal, and the mining laws duly complied with in good faith by the locators or their grantees, the possessory rights so obtained by such locations and duly maintained will be respected by the Government. The requisites of a valid location are (1) discovery, (2) the marking of the location on the ground so that its boundaries may be readily traced, and (3) compliance with local regulations.

January 14, 1904.—By a successful contest against a desert-land entry the contestant does not acquire such a preference right of entry as will, prior to its exercise, except the land from the operation of a withdrawal for irrigation purposes made under the provisions of the act of June 17, 1902.

February 17, 1904.—In a decision of this date certain rules are laid down with regard to the acceptance of final proof in desert-land entries made within the areas withdrawn under the reclamation act, and by circular letter of February 23, 1904, an extract of this decision was communicated to the engineers in charge of projects for

their guidance in reporting upon such entries. The extract reads as follows:

> Proof which shows that because of irrigation there is on the land "a marked increase in the growth of grass" or that "grass sufficient to support stock has been produced on all the land" will not be accepted as showing a compliance with that provision of the amendatory act of 1891 (26 Stat., 1095) "that proof be further required of the cultivation of one-eighth of the land." Actual tillage must, as a rule, be shown. If, however, it be shown—and it must be made to conclusively so appear—that because of climatic conditions crops other than grass can not be successfully produced, or that actual tillage of the soil will destroy or injure its productive qualities, the actual production of a crop of hay of merchantable value, as a result of actual irrigation, may be accepted as sufficient compliance with the requirement as to cultivation.
>
> That the entryman has an absolute right to sufficient water to successfully irrigate the land, that the system of ditches to conduct the water to and distribute it over the land is adequate for those purposes, and that the land has been actually irrigated for a sufficient period of time to demonstrate the sufficiency of the water supply and the effectiveness of the system are essential facts which must in all cases be clearly established by the proofs.

April 14, 1904.—Lands withdrawn from "settlement, entry, or other form of disposal under the public-land laws, except the homestead laws," in accordance with the provisions of the act of June 17, 1902, are not, during the continuance of such withdrawal, subject to disposal under the coal-land laws, where no rights thereto were initiated under such laws prior to the order of withdrawal.

March 30, 1904.—Lands withdrawn from entry under the second form of withdrawal (p. 29) are not subject to desert-land entry, even when the applicant has commenced a system of irrigation.

May 17, 1904.—Persons making homestead entry of lands within the irrigable area of any project commenced or contemplated under the provisions of the act of June 17, 1902, will be required to comply fully with the requirements of the homestead law as to residence, cultivation, and improvement; and failure to supply water from such works in time for use upon the land entered will not justify a failure to comply with the law and to make proof thereof within the time required by the statute.

WATER RIGHTS.

March 20, 1903.—The Director of the Geological Survey is authorized to designate suitable persons to file notices of water appropriation for the projects of the reclamation service, in the name of and on behalf of the Secretary of the Interior, in pursuance of the provisions of section 8 of the reclamation act.

September 5, 1903.—There is no authority to make such Executive withdrawal of public lands in a State as will reserve the waters of a stream flowing over the same from appropriation under the laws

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of the State or will in any manner interfere with its laws relating to the control, appropriation, use, or distribution of the water.

RIGHTS OF WAY.

May 6, 1904.—No rights are acquired by an application for a right of way under the act of February 15, 1901, prior to the approval thereof by the Secretary of the Interior.

No such right is acquired by virtue of an application for right of way for a railroad under the act of March 3, 1875, before the approval thereof and prior to the construction of the road, as will prevent the Secretary from withdrawing the lands covered thereby for use as a reservoir site under the provisions of the act of June 17, 1902.

June 4, 1903.—The act of August 30, 1890, with regard to reservations for rights of way, does not apply to (1) land taken under the indemnity clause of railroad land grants which has actually been selected; nor (2) to various school land grants to States or Territories; nor (3) to indemnity school selections; nor (4) to educational and other grants to States and Territories, where selections have been made; nor (5) to special grants by acts of Congress.

June 17, 1904.—Where a right of way for a reservoir site has been granted under the act of March 3, 1891, which provides that entries subsequent to such grant shall be subject thereto, the United States, in purchasing the rights of such grantee, does not succeed to the superior rights granted by said act as to entries made subsequent to such grant; and the right to flood and appropriate lands and improvements under such subsequent entries must be acquired by the United States by agreement or by condemnation proceedings.

RIGHT-OF-WAY APPLICATIONS.

July 14, 1902.—The Commissioner of the General Land Office was instructed to submit to the Director of the Geological Survey, for his consideration and report, all applications for rights of way over the lands withdrawn for the uses of the reclamation service.

September 18, 1902.—The above instructions were extended to cover rights of way applied for within the limits of forest reserves.

June 23, 1903.—The Commissioner of the General Land Office was instructed to submit to the Director of the Geological Survey all the applications received for rights of way for canals or reservoirs in any of the States or Territories subject to the operations of the reclamation act.

SURVEYS.

May 9, 1903.—As the land which it is proposed to reclaim under some of the projects now being studied has not been subdivided in accordance with the public-land surveys, and as such subdivisions

will be necessary in order to make proper descriptions for the disposal of the same, the Secretary decided that the necessary public-land surveys could be ordered whenever they were found advisable.

July 14, 1903.—The Director is authorized to instruct the engineers and topographers of the Reclamation Service to retrace and re-mark the public-land lines within the areas under survey with a view to their reclamation.

ARTESIAN WELLS.

March 3, 1903.—The reclamation fund can not be used for drilling artesian wells for exploration. Such wells may be paid for from the reclamation fund only in cases when there is sufficient knowledge in advance to make it probable that water will be obtained from them in sufficient quantities for the irrigation of lands, with the probability that the cost of the work will be returned to the reclamation fund.

LAND PURCHASES.

March 20, 1903.—Whenever the Director is authorized by the Department to enter on negotiations looking to the acquisition by the United States of rights or property, or both, he will designate such persons as he thinks proper to carry on such negotiations.

December 30, 1903.—The Secretary authorized the examination and approval of land titles by district attorneys and instructed them to report thereon to the assistant attorney-general for the Department of the Interior for final examination and action.

January 28, 1904.—When land the acquisition of which is necessary is not needed at once and can be purchased for a less price if the vendor is allowed to retain possession until the land is actually needed, an arrangement to that effect may be entered into. But after purchase and possession by the United States such lands can not be leased.

April 8, 1904.—Where the purchase of real property is contemplated the title thereto will be passed upon by the assistant attorney-general for the Department of the Interior.

LANDS IN PRIVATE OWNERSHIP.

May 21, 1904.—Where lands are in private ownership in blocks of more than 160 acres the excess may be conveyed to members of the owner's family, provided the transfer is bona fide and the requirements of the reclamation act as to residence are complied with.

August 30, 1904.—In regard to the disposition under reclamation projects of lands in private ownership held in tracts of more than 160 acres by any one person, it was held that the views of the Department

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STREAM MEASUREMENTS.

During the field season of 1904 a study of the water supply of the Snake River drainage was continued, several new stations having been added for the purpose. A station was established on Big Wood River at Gimlet, and one on Little Wood River at Carey. In addition to the station established last year on Big Lost River at Mackay, which is below the sinks, another above the sinks at Chilly was added.

Besides the daily observations made at the regular stations established on Snake River and all of its principal tributaries, measurements were made during the season of the discharge of many of the upper tributaries in connection with reservoir surveys and general reconnaissances.

This work has been carried on under the general supervision of Fred Stockton, assistant engineer, who has been assisted by William G. Davies and J. B. Bond.

STATE COOPERATION.

Several important suits for the adjudication of water rights having recently been filed, it became necessary for the State engineer of Idaho to make hydrographic surveys of several of the important valleys of Snake River basin, the most important of these being Boise and upper Snake River valleys.

The survey of Boise Valley was begun during the summer of 1903 and completed in February, 1904. At the request of the State engineer, measurements were made during the month of June by the Reclamation Service of all the canals diverting water from Boise River. These measurements were made with a view of verifying measurements made the year previous under the direction of the State engineer. The following table shows the capacities of these canals:

Capacities of canals diverting water from Boise River.

Canal.	Date.	Volume by meter.	Volume at high-water mark, computed.	Capacity of finished section.
New York	June 27	173.1	183.4	
Coston	June 10	14.3		
Keogh	do	.9		
Meeves	do	Dry.		
Perrault	June 21	30.8		
Bubbs	June 10	44.1		
Mill ditch	do	174.6		
Boise City	June 21	31.1		
Rapid Transit	do	34.0		
Ridenbaugh	June 22	454.4		454.4
Davis (private)	June 11	3.8		
Davis canal	do	54.8		
	June 27	76.1	93.4	

Capacity of canals diverting water from Boise River—Continued.

Canal.	Date.	Volume by meter.	Volume at high-water mark, computed.	Capacity of finished section.
Settlers	June 11	139.8		
	June 30	149.0		149.0
Thurman Mill Slough	June 27	17.0		
Valley	June 16	41.3		
Farmers' Union	do	148.7		
	June 22			
Little Union	do	50.0		
Eureka No. 1	June 13	15.1		
	June 26	Dry.		
Dry Creek	June 16	56.85		
Ballentine	June 17	19.1		
Pioneer	do	26.3		26.3
Joplin	June 26	Dry.		
Catlin	do	7.6		
Conoway	do	5.8		
Webster Slough	do	Dry.		
Middleton canal	June 17	139.01	273.9	
Middleton Slough	do	102.2		
Phyllis	June 13	156.4		
	June 26	Dry.		
Lawrence and Kennedy	June 23	(a)		
Caldwell	June 13	50.9	159.5	159.5
Strayhorn	do	2.6		
Canon County	June 15	23.2	57.7	
Masons	June 13	Dry.		
	June 25	Dry.		
Riverside	do	143.9		
Source	June 14	227.4		
	June 25	243.3		243.3
Campbell	June 14	2.2		
	June 24	(a)		
Siebenberg	June 15	13.7		
Keller	June 14	21.4		21.4
American	do			
	June 25	19.7	50.7	50.7
Center Point	June 14	7.3		
	June 25		17.5	17.5
Eureka No. 2	June 13	24.3		
	June 25		34.75	34.75

a Nearly dry.

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RIVER, HAGERMAN, LINCOLN COUNTY, , BE THE SOURCE OF SUPPLY FOR LOST

BIENNIAL REPORT

OF THE

STATE ENGINEER

TO THE

GOVERNOR OF IDAHO

1903-1904

PID001233

nporary use of this fund for

full provision for the admin-
ed since it became operative
re is a class of water users,
hts to the use of water, who
sdiction of the watermasters
d the operation of this law.
ropriated water between the
a stream and the taking ef-
er to reach these particular
ry to have a new decree cov-
the date of the new law.

henever suit shall be filed in
purpose of adjudicating the
of water from any stream in
udication is made, the judge
e State Engineer to make an
nd the canals and ditches di-
and of all the land being ir-
itches and other works and
nation therefrom in the man-
three (33) of this act, and
repare a map showing such
nd the lands thereunder as
a statement which shall give
heir capacity and the amount
such canals, ditches or other
tures in relation to the recla-
to such stream. And such
accepted as evidence in the
by such court; and a copy of
be placed on file in the office

law examination of the Boise

River was undertaken in the year 1903, with the following general results:

Table of Canal Statistics in Boise River Valley.

Name.	Headgate. Sec.	Tp.	R.	Capacity Sec. Ft.	Length of main canal, miles.	Length of laterals, miles.	Acres Irrigated.	Acres irrigable.
1. New York	11	2 N	3 E	195.0	30.0	58.0	4,801.2	29,712.8
2. Costou	33	3 "	3 "	18.3	1.0	0.0	80.0	184.0
3. Keogh & Rice.	29	3 "	2 "	35.5	1.5	0.0	44 0	5.0
4. Meeves	24	3 "	2 "	4.9	1.5	0.0	183.0	0.0
5 Perrault	19	3 "	3 "	19.5	7.0	30.0	399.8	385.1
6. Bubb	30	3 "	3 "	26.4	3.0	3.0	734.4	25.0
7. Mill Ditch	24	3 "	2 "	159.5	2.5	2.5	312.9	205.0
8. Boise City	24	3 "	2 "	29.8	4.0	8.0	1,779.0	160.0
9. Rapid Transit.	24	3 "	2 "	50.0	3.0	7.0	132.8	38.0
10. Ridenbaugh	29	3 "	3 "	426.0	50.0	271.0	23,582.7	43,666.0
11. Davis - private ditch	9	3 "	2 "	2.0	0.5	0.0	22.0	0.0
12. Davis canal	9	3 "	2 "	136.0	2.0	2.0	609.0	50.0
13. Settlers'	9	3 "	2 "	221.0	29.0	96.5	10,568.5	1,800.1
14. Thurman mill slough	5	3 "	2 "	122.0	7.0	6.0	1,576.2	291 0
15. Valley ditch	32	4 "	2 "	75.5	5.0	3.0	1,407.2	204.0
16. Farmers' union	32	4 "	2 "	130.0	25.0	59.0	4,639.0	3,355.1
17. Little union	23	4 "	1 "	81.8	2.0	5.0	313.8	175.0
18. Eureka No. 1	24	4 "	1 W	289.5	5.0	9.0	1,386.0	129.0
19. Dry Creek	24	4 "	1 E	71.8	13.0	11.0	1,792.7	594.0
20. Ballentine	15	4 "	1 "	30.0	5.5	4.0	608.7	193.0
21. Pioneer	14	4 "	1 W	38.5	4.0	6.0	1,052.0	158.0
21. Mathews Island ditch	32	4 "	2 E	3.0	0.5	0.0	21.5	0.0
22. Joplin ditch	21	4 "	1 W	6.0	1.0	0 0	108.0	11.0
23. Catlin ditch	16	4 "	1 "	40.0	3.5	0.0	869.0	0.0
24. Conway ditch	21	4 "	1 "	10.0	0 5	0.0	99.0	0.0
25. Webat'r slough	22	4 "	1 "	57.0	3.0	0.0	258.8	30.0
26. Middleton canal	12	4 "	1 "	593.0	9.0	12.0	4,715.8	577.5
27. Middleton mill slough	13	4 "	1 "	282.0	27.0	33.0	3,277.4	528.0
28. Phyllis	24	4 "	1 "	550.0	37.0	155.0	8,501.5	17,711.4
29. Lawrence Kennedy slough.	17	4 "	1 "	.....	3.0	0.0	92.0	135.0
30. Caldwell	24	4 "	1 "	75.5	20.0	50.0	2,897.7	6,874.6
31. Strayhorn slough	24	4 "	1 "	13.7	7.0	8.0	273.9	0.0
32. Canyon County Water Co.	13	4 "	2 "	125.0	10.0	17.5	2,907.2	172.0
33. Mason slough.	16	4 "	2 "	37.0	5.0	6.0	806.5	185.0
34. Riverside	10	4 "	3 "	150.0	28.0	40.0	3,959.6	8,111.5
35. Sebree	15	4 "	3 "	347.0	22.0	30.0	8,422.5	5,655.0
36. Campbell	15	4 "	3 "	20.0	3.0	0.0	446.0	36.0
37. Siebenberg	16	4 "	3 "	20.0	3 0	0.0	515.0	44.0
38. Keller	20	4 "	3 "	22.0	3.0	5.0	1,057.0	235.0
39 American	18	4 "	3 "	50.0	10.0	16.0	1,627.5	1,069.5
40. Center Point	12	4 "	4 "	18.7	7.0	7.0	871.0	425.0
41. Eureka No. 2	12	4 "	4 "	38.6	9.0	10.0	850.0	590.0
Private ditches from sloughs	.....	.....	.....	.....	5.0	0.0	2,584.5	170.0
Totals	.....	.....	.....	4621.5	409.0	970.5	101,116.3	123,890.6

List of Townships Covered by Canals.

Township.	Range.	Township.	Range.	Township.	Range.	Township.	Range.
3 North.	2 East.	2 North.	1 West.	3 North.	2 West.	5 North.	4 West.
4 "	2 "	3 "	1 "	4 "	2 "	5 "	5 "
2 "	1 "	4 "	1 "	3 "	3 "	6 "	5 "
3 "	1 "	5 "	1 "	4 "	3 "	5 "	6 "
4 "	1 "	2 "	2 "	4 "	4 "	.....	.....

PID001234

Pioneer Irrigation District.

The Pioneer Irrigation District was organized in 1901 to take water from the Boise River through the Phyllis and Caldwell Canals for the irrigation of 36,500 acres of land. The Phyllis Canal is thirty-seven miles in length and carries five hundred and fifty second feet of water; the Caldwell Canal is twenty miles in length and carries seventy second feet. The district now has twelve thousand acres of land under irrigation. The estimated cost of its irrigation system was $265,000.00, of which amount $247,500.00 worth of bonds have been issued. There was a difference between the estimated cost and the actual cost of the work of about forty thousand dollars, which, upon investigation by a committee of the water users, was found to be due to the difference between the contract price at which the work was let. Construction work has been carried on during the years 1903 and 1904. The ditches are now completed, carry water to their full capacity, and irrigate all the lands within the district. The annual assessment charge is now eighty-five cents per acre. Lands in this district have increased in value to an average of seventy-five dollars per acre; unimproved land is held at thirty dollars per acre.

R. H. Davis is the Secretary and Treasurer of the district, and the following is his last report:

Financial Statement, 1903, of the Board of Directors of the Pioneer Irrigation District of Canyon and Ada Counties.

Labor on canals, including cleaning out and improving, also salaries of watermasters, superintendent and cost of second break	$ 9,602 43
Material used, in headgates, etc., including lumber, hardware, etc., in maintenance	1,867 50
Permanent enlargement including labor and material on works below Nampa	7,630 36

PID001235

Cost of General Election, also legal services not incident to the election	352 78
Damages paid to Huston Frost, caused by break of previous year	250 00
Expense of Board of Arbitration	25 00
Salaries of Directors, Secretary and Treasurer, also stationery, printing and postage	1,229 50
Grand total	$ 20,957 57

Drawn on Construction Fund During the Year 1903.

Paid contractors for work on Phyllis Canal	$ 50,995 39	
Paid contractors for work on Caldwell Canal	14,972 57	
Total paid contractors		$ 65,967 96
Material used in construction work, including lumber, sewer pipes, hardware, piles, etc	$ 8,697 51	
Labor on bridges, flumes, drains, etc	2,592 03	
Costs of right-of-way	3,282 20	
Engineering and superintending	5,231 40	
Miscellaneous labor, including force account of contractors, hauling material, checking unloading cars, constructing permanent headgates, etc	2,008 35	
Emergency work on Phyllis time of break in May	2,772 63	
Office building furnishing, vault doors, record books, building yard and outhouses	1,254 35	
Commissions for placing bonds, advertisements on bonds and contracts, Duke M. Farson & Co., 4 per cent commission on $50,000 of bonds placed	2,000 00	
Howard Sebree, 5 per cent on $25,000 of bonds placed	1,250 00	
W. P. Carter, 5 per cent on $5,000 of bonds placed	250 00	
Advertising of bond sale and advertising for bids for contracts	171 75	
Total		$ 29,510 23

Receipts and disbursements reported by Treasurer:

PID001236

Treasurer's Annual Report.

Caldwell, Idaho, Jan. 31, 1904.

Receipts.

Balance on hand last report, January 31, 1903		$ 30,149 56
Received from sale of bonds, viz:		
Duke Farson & Co., Chicago	$ 50,000 00	
Howard Sebree, Caldwell, Ida	25,000 00	
W. P. Carter, Nampa, Ida	5,000 00	$ 80,000 00
Received of accrued interest on bonds		3,195 89
Received from acreage tax		15,835 84
Received from water rents		6,763 63
Received from fines		10 00
Received from sale of old lumber		26 10
		$135,981 02

Disbursements.

Paid construction warrants during the year	$ 95,056 27
Paid general warrants, during the year	7,778 05
Paid interest on bonds	13,722 00
Cash balance on hand	19,424 70
	$135,981 02

Statement and Recapitulation.

The Treasurer's report indicates that $422.91 of construction fund warrants which have been issued had not been presented for payment at the time he made his report.

His report also indicates an outstanding General Fund warrant indebtedness of $1,640.76 in excess of the warrants issued during the year 1903. This occurs in consequence of delinquent taxes, the property being struck off to the district, and also the fact that lands owned by the State were assessed but the State Board holds that it has no authority to pay taxes which accrued prior to the present year. As a result of these conditions, the estimated funds in 1901 and 1902, fell somewhat short of the actual

PID001237

funds raised. However, these amounts are not lost to the district, but will be paid gradually by redemption of tax sale certificates and payment of back taxes on State land as it falls into the hands of private owners. This liquidation is now in process.

The following summary will show the actual financial condition of the district, January 31, 1904:

Entire bond issue	$207,500 00
Bonds sold	195,000 00
Balance in treasury	$ 12,500 00
After deducting purchase of Phyllis and Caldwell and commissions there was actually realized in cash on bonds sold	101,500 00
There has been paid for actual construction work, including emergency work on Phyllis	91,806 43
There was on hand January 31	9,943 73
Total	$101,750 16

The bond fund has been augmented by $250.16 in consequence of slight over calculations on amount necessary to be apportioned to meet interest payment.

Cash on Hand and Taxes Unpaid January 31, 1904.

In construction fund	$ 9,943 70
In interest fund	2,603 95
In general fund	6,877 02
Unpaid land tax fund	4,924 74
Unpaid water rate	2,201 45
The warrant indebtedness incurred during the present year, exclusive of enlargement work done on the Phyllis below Nampa is	13,327 21
Of this amount there was paid in January	1,729 82
Balance outstanding	$ 11,597 39

For the redemption of which, cash on hand in general fund, unpaid land taxes and water rates are applicable.

T. C. EGLESTON,

President Board of Directors Pioneer Irrigation District.

Dated Caldwell, Idaho, Feb. 2, 1904.

PID001238

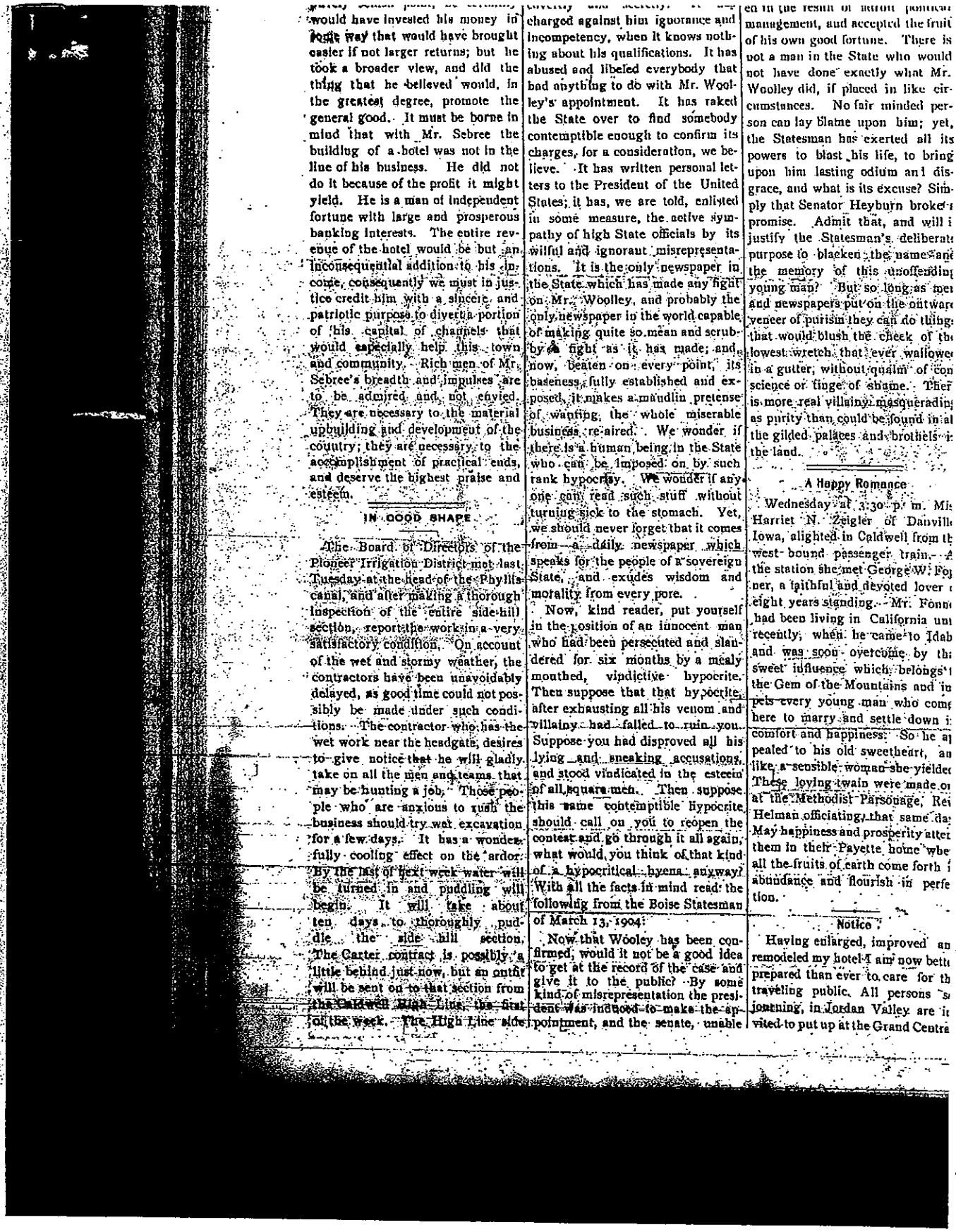
Discharge of Boise River at Lower Point of Measurement, plus all Diversions, in 1903.

Date.	Stream.	Locality of heading or place of measurement.	Discharge Sec. Ft
Oct....	Boise River.....	Lower point of measurement	
		2½ miles above Caldwell..	726.3
24.	Jacob's canal.....	Headgate	15.4
24.	Leak through small headgate	Above Boise.....	.2
24.	Goodwin's mill ditch.	Below wastegate	85.2
24.	Ridenbaugh canal ...	Below headgate	150.5
24.	Paynne canal.....	" "	9.7
24.	Rossi canal.....	" "	152.0
26.	Costin canal.....	" "	.2
26.	Farmers' union canal	In measuring flume	23.9
26.	Dry Creek canal	Near head.....	32.0
26.	Small ditch	Below Dry Creek canal.....	4.9
26.	Ballentine canal	Levi Smith's ranch.....	1.4
26.	Middleton canal.....	Measuring flume	40.3
26.	Middleton mill canal.	Wagon bridge.....	91.3
26.	Slough below Lemp's	" "	6.7
28.	Lemp's canal	" "	49.5
	Total.....	....	663.2

Summary of Seepage Measurements in Boise Valley.

	Second feet.
Total of Boise river at gaging station, plus all tributaries between upper and lower points of measurement	1,134.2
Total of Boise river 2½ miles above Caldwell, plus all diversions between upper and lower points of measurement....	1,389.5
Seepage between Boise and Caldwell, Idaho, 37 miles	255.3

PID001239



would have invested his money in some way that would have brought easier if not larger returns; but he took a broader view, and did the thing that he believed would, in the greatest degree, promote the general good. It must be borne in mind that with Mr. Sebree the building of a hotel was not in the line of his business. He did not do it because of the profit it might yield. He is a man of independent fortune with large and prosperous banking interests. The entire revenue of the hotel would be but an inconsequential addition to his income, consequently we must in justice credit him with a sincere and patriotic purpose to divert a portion of his capital of channels that would especially help this town and community. Rich men of Mr. Sebree's breadth and impulses are to be admired and not envied. They are necessary to the material upbuilding and development of the country; they are necessary to the accomplishment of practical ends, and deserve the highest praise and esteem.

IN GOOD SHAPE

The Board of Directors of the Pioneer Irrigation District met last Tuesday at the head of the Phyllis canal, and after making a thorough inspection of the entire side-hill section, report the work in a very satisfactory condition. On account of the wet and stormy weather, the contractors have been unavoidably delayed, as good time could not possibly be made under such conditions. The contractor who has the wet work near the headgate, desires to give notice that he will gladly take on all the men and teams that may be hunting a job. Those people who are anxious to rush the business should try wet excavation for a few days. It has a wonderfully cooling effect on the ardor. By the last of next week water will be turned in and puddling will begin. It will take about ten days to thoroughly puddle the side hill section. The Carter contract is possibly a little behind just now, but an outfit will be sent on to that section from the Caldwell High Line, the first of the week. The High Line side

charged against him ignorance and incompetency, when it knows nothing about his qualifications. It has abused and libeled everybody that had anything to do with Mr. Woolley's appointment. It has raked the State over to find somebody contemptible enough to confirm its charges, for a consideration, we believe. It has written personal letters to the President of the United States; it has, we are told, enlisted in some measure, the active sympathy of high State officials by its willful and ignorant misrepresentations. It is the only newspaper in the State which has made any fight on Mr. Woolley, and probably the only newspaper in the world capable of making quite so mean and scrubby a fight as it has made; and now, beaten on every point, its baseness fully established and exposed, it makes a maudlin pretense of wanting the whole miserable business re-aired. We wonder if there is a human being in the State who can be imposed on by such rank hypocrisy. We wonder if any one can read such stuff without turning sick to the stomach. Yet, we should never forget that it comes from a daily newspaper which speaks for the people of a sovereign State, and exudes wisdom and morality from every pore.

Now, kind reader, put yourself in the position of an innocent man who had been persecuted and slandered for six months by a mealy mouthed, vindictive hypocrite. Then suppose that that hypocrite, after exhausting all his venom and villainy had failed to ruin you. Suppose you had disproved all his lying and sneaking accusations, and stood vindicated in the esteem of all square men. Then suppose this same contemptible hypocrite should call on you to reopen the contest and go through it all again, what would you think of that kind of a hypocritical hyena anyway? With all the facts in mind read the following from the Boise Statesman of March 13, 1904:

Now that Wooley has been confirmed, would it not be a good idea to get at the record of the case and give it to the public? By some kind of misrepresentation the president was induced to make the appointment, and the senate, unable

en in the result of petroit political management, and accepted the fruit of his own good fortune. There is not a man in the State who would not have done exactly what Mr. Woolley did, if placed in like circumstances. No fair minded person can lay blame upon him; yet, the Statesman has exerted all its powers to blast his life, to bring upon him lasting odium and disgrace, and what is its excuse? Simply that Senator Heyburn broke a promise. Admit that, and will it justify the Statesman's deliberate purpose to blacken the name and the memory of this unoffending young man? But so long as men and newspapers put on the outward veneer of purism they can do things that would blush the cheek of the lowest wretch that ever wallowed in a gutter, without qualm of conscience or tinge of shame. There is more real villainy masquerading as purity than could be found in all the gilded palaces and brothels in the land.

A Happy Romance

Wednesday at 3:30 p. m. Miss Harriet N. Zeigler of Danville, Iowa, alighted in Caldwell from the west bound passenger train. At the station she met George W. Fonner, a faithful and devoted lover of eight years standing. Mr. Fonner had been living in California until recently, when he came to Idaho and was soon overcome by the sweet influence which belongs to the Gem of the Mountains and impels every young man who comes here to marry and settle down in comfort and happiness. So he appealed to his old sweetheart, and like a sensible woman she yielded. These loving twain were made one at the Methodist Parsonage, Rev. Helman officiating, that same day. May happiness and prosperity attend them in their Payette home where all the fruits of earth come forth in abundance and flourish in perfection.

Notice

Having enlarged, improved and remodeled my hotel I am now better prepared than ever to care for the traveling public. All persons sojourning, in Jordan Valley are invited to put up at the Grand Central

PID001240

Caldwell Tribune
3-14-1904

The Tribune

PUBLISHED WEEKLY BY
The Tribune Printing and Publishing Co.
Limited

Subscription, — $2.00 Per Annum

WEEKLY ESTABLISHED MAY, 1891, and entered at the Caldwell P. O. as second class matter.—Act of March 3, 1879.

REALIZATION

One by one the dreams which float in the minds of Caldwell and give hope of future greatness take form and materialize. For ten years we have dreamed of the day when Caldwell would have a house of public entertainment which would gratify the pride and meet the requirements of this young and enterprising community. It has come. The Saratoga, which was opened last Tuesday, is all that could be wished. Nowhere in the west is there a more elegant and substantial structure. There are many larger hotels, but none more perfect and complete in appointments. The aim of the builder, Mr. Howard Bebree, has been to erect and furnish a hostelery that would satisfy the most fastidious taste without a suggestion of tinsel or vulgar display. Perfection in neatness and comfort has been attained and Polonious advise, rich but not gaudy —has been scrupulously observed.

We understand that the cost, with a complete or practically so and paddling has probably begun. The work of putting in the new head gate was completed last Monday night. There is now but one thing that needs cause anxiety, and that is the financial end of the business. If money can be raised on bonds or otherwise to keep the work moving, the canals will be running good heads of water by the 15th of April, and they will have ample time to season and settle before the irrigation season opens.

SUCH HYPOCRISY

We suppose that it is the duty of weekly newspaper to hold in reverential regard the editorial utterances of a daily newspaper; for, we have fallen upon times when frequency of publication is the index of authority in journalism. We doubt not that hundreds of intelligent men and women have read the article which we are about to reproduce, and as it emanated from a daily paper with press dispatches and a pretentious display of headlines, they probably felt that in reading it they were absorbing wisdom.

To properly and politely introduce this product of the daily press, it should be remarked that it is brought forth after six months of incessant warfare made by this same daily press upon Mr. Woolley, to get the record, has confirmed the nomination. The case has been carefully covered up to this time, but, since the object sought has been attained, there can be no future incentive for keeping the matter covered up and it would be a wise plan to proceed in such a manner that the entire record would be brought out.

The people want to know the facts; they want to be able to judge for themselves whether this is or is not a proper appointment. They want to know wether the president has been deceived or whether the case was so cleared up that nothing remained against the appointee. If there be nothing against him, the people would like to learn what it was that caused every department dealing with the appointment to hesitate so long before indorsing it. Again, people who patronize the office wish to know whether we have a fit man in the position of assayer-in-charge, and in the interest of the business of the office the point should be cleared up.

Mr. Woolley, with the co-operation of his supporters, should be able to get the record released. The department could have no object in suppressing the record if the defence were desirous of having it made public. Will all those who contributed statements, or affidavits in the interest of the defense unite in a request to the department to make the entire record public? Perhaps they would do that, and probably their example would be followed by those making statements to the special agent. The department could not then refuse to publish the record if it were

Excellent bar in connection
feed and livery stable, al
ducted by me.
Hotel conveniently situat
the Grand Central.
— DAVID WEIR, Pr

INDIGESTI

"I was troubled with sto
soh trouble. Thedford's Blac
Draught did me more go
in one week than all the do
tor's medicine I took in
year."—MRS. SARAH
SHIRFIELD, Hattsville, In

Thedford's Black Draug
quickly invigorates the s
tion of the stomach a
cures even chronic cases
indigestion. If you w
take a small dose of The
ford's Black Draught occ
sionally you will keep yo
stomach and liver in pe
fect condition.

THEDFORD'S
BLACK-DRAU

More sickness is caused
constipation than by a
other disease. Thedfor
Black-Draught not only
loves constipation but cu
diarrhoea and dysentery a
keeps the bowels regular.

All druggists sell
25-cent packages.

"Thedford's Blac
Draught is the best me
cine to regulate the bow
I have ever used."—MR
A. M. GRANT, Sies
Ferry, N. C.

PID001241

Caldwell Tribune 4-16-1904

[illegible]

[illegible] Publishing Co.

[illegible] Per Annum

[illegible] MAY [illegible] [illegible] Caldwell [illegible] second class [illegible]

NEARING COMPLETION

The main works of the Pioneer Irrigation District system are now very near to completion. The side hill section of both canals is being puddled, the new [illegible] is being placed in the Phyllis, the excavation work is practically done, and there is every indication of an ample water supply. The stress, we believe, is now over and the time is arrived when the people of the District will begin a rapid march of development and progress. In the near future, THE TRIBUNE will take up and recount the history of the Pioneer Irrigation District, disclosing a good many interesting facts which have not been of general knowledge, and the publication of which before the practical completion of the works might have been in bad taste. We hope to show the people of the District what has been done and how it has been done. What obstacles arose and which have been overcome. A great and good work is about completed and its history will afford an interesting and edifying chapter in the irrigation development of Idaho.

ANOTHER RURAL ROUTE

Last February the people down the valley petitioned for the establishment of a Rural Free Delivery mail service, and, through the active interest of Representative French, a special agent, Mr. Clements, was sent out to examine the proposed route. In company with Mr. George Froman he went over it last Monday, and, upon his return, indicated that he would recommend its immediate establishment. The postmaster of Caldwell has requested Representative French to push the matter as rapidly as possible. The line runs down on the south side of the Boise river to within a few miles of Bowman, crosses over and returns via Pleasant Ridge. It is probable the route will be in operation in sixty [illegible] county will be well cared for by him, [illegible] could not be otherwise. Therefore it is due to congratulate the county commissioners on the exercise of good judgment in making a choice and to felicitate the people of the county in having commissioners who have good judgment to exercise.

Report Unfounded.

The Star, of Moscow published an article on the authority of G. O. Pickett, which alleges that the Republican state administration has been coercing settlers into support of the administration under threat of losing their lands or at least having to contest the state's right. This county has had a chance to have the same trouble—but never did. The state filed on 60,000 acres of land here, covering the squatters, holdings of perhaps 40 settlers, some of whom had been there for 15 years. Later, the land of every bona fide settler was relinquished, not under promise to support the administration, but because it was right that it should be relinquished. The Standard led in the protest against taking the settles' lands, both on the ground of public policy and private right. It is glad to say now that not the faintest breath of suspicion lies with the state administration, either for political coercion or financial profit in the filing or the subsequent relinquishment. It is not reasonable that the administration would spoil an otherwise spotless record by trying to secure a few paltry votes that would never be delivered on election day, when ten times as many could be gained by simple honesty. It will be recalled that Mr. Picket was a promoter of sundry unsavory Clearwater boom schemes that were turned down by the Morrison abministration as mendacious monopolies. However, Mr. Pickett quotes M. L. Goldsmith, an employe of the state land board, as his authority. It is the duty of the administration to clear itself from the charges alleged to have been made by its trusted employe.—Grangeville Standard.

'Twas a Miraculous Escape.

Word reaches us that the little 5-year-old son of Mr. and Mrs. Henry Dorman, of Pearl, escaped death one day last week in a most

CANYON SOLID FOR MORRISON

Every now and then, as the campaign comes on, the name of some prominent Republican is put forward by some over zealous friend, or some Democratic paper, with a motive apparent, as a probable candidate for the nomination for governor as against the present incumbent of that office. It reflects much credit, however, upon the loyalty and sound judgment of Republicans themselves to know that not one of them has so far made any open effort to secure the nomination, nor has any of them made any direct statement that he coveted the honor. There is but one logical candidate before the Republican party today for the nomination for governor, and that man is John T. Morrison, who at present fills that office with such faithfulness to his trust, loyalty to his party and credit to himself that to allow his splendid services to go unrewarded by a second term, such as has been the custom in American politics since the nation began, would be to endanger the success of the party at the polls; for to those who are uninitiated into the intricacis of strife within the party by which good men are turned down, such action would have the appeareance of a repudiation of state affairs enjoyed under our present chief executive, by the very party which elevated him to power. Though possessing 10,000 majority in the state, the Republicans of Idaho cannot afford to take the slightest chance upon the result in November, simply to gratify the personal enemies of Governor Morrison, nor can it afford to lessen the chance for success in the slightest degree by appearing to to overlook his enviable record. It is true that there are other men and and loyal Republicans in Idaho, any one of whom would no doubt make a governor of whom his supporters could well be proud, but it is also true that the conditions at this time do not justify them in allowing their names to go before the people as aspirants for the position. Being good men and loyal Republicans they should de depended upon to allow no selfish motives to persuade them into premature action at this time. There will be other elections in Idaho and they

drinking of it was not confi[illegible] the boys. All decency was [illegible] and some of the things done be recorded in the District c[illegible] the Sheriff had happened o[illegible] scene. That certainly re[illegible] woeful state of affairs amon[illegible] boys and girls and an awful [illegible] of watchfulness on the part parents.—Mt. Pleasant [illegible] Pyramid.

FOR SAL[illegible]

The Moses Fowler ranc[illegible] posite the Kingsbury plac[illegible] about 3 miles west of Star [illegible] taining about 200 acres, [illegible] sold at private sale. For [illegible] and particulars, enquire of

Mrs. Emma Fow[illegible]

Caldwell, Idaho,

R. F. D. No. 1.

FOR SALE BY [illegible]

BALLAN[illegible]

PID001242

TO RELIEVE THEM

Judge Stewart Issues Order to Give Lower Boise Farmers Water.

SWEEPING REDUCTIONS IN ALL THE CANALS

THOSE IN UPPER PART OF VALLEY WILL HARDLY HAVE ENOUGH TO WET BOTTOMS.

All Waterways Leading from River to Be Cut Down to a Third of an Inch on Acre and for the Time Being Those in the Upper Part of the Valley Will Be Restricted to a Fifth of an Inch—Ridenbaugh Canal to Be Reduced to Less Than 6000 Inches, New York to 1400 and Settlers to 1600—May Leave Enough to Irrigate Gardens and Orchards.

Judicial steps have been taken to grant relief from the water shortage in the lower part of the Boise valley. Tuesday at Caldwell Judge Stewart issued an interlocutory order directing J. H. Lowell, water commissioner for this district, to distribute the water of the Boise river until further order of the court among the various ditches in proportion to the acreage irrigated by each.

Mr. Lowell came to Boise yesterday and today he will go out, in company with Mr. Spearman of the state engineer's office, to rate the canals. He will immediately thereafter cut down the amount of water diverted by each of the upper canals and appoint assistants to patrol the headgates. He will then maintain the inflow at all the canals on the basis named in the order

Cut Will Be Heavy.

Mr. Lowell said that the total acreage under all the canals was about 120,000 acres. According to the latest reports there were about 500 second feet, or 40,000 inches, of water flowing in the Boise river in the canon above the city. In order to carry out the provisions of the court's order, it would be necessary, he said, to allot not more than one-third of an inch per acre to the canals.

Because the lower canals were dry, however, and in pursuance of the determination to treat all alike, it would be necessary in order to fairly equalize the water to restrict the upper canals for the time being to a fifth of an inch an acre.

That action would give the Ridenbaugh canal, with 28,000 acres, less than 6000 inches, as against a carrying capacity of 25,000 inches. The management of the canal claims that such a reduction would result in the water apportioned to their canal being largely taken up by seepage and evaporation, leaving practically nothing for the patrons of the canal.

The other upper canals will be similarly situated. The Perrault canal will have only 100 inches under this order for a time and not to exceed 170 inches at any time during the life of the order.

The New York canal, with a capacity of 15,000 inches, will get only 1400 inches under the one-fifth arrangement and 2500 under the one-third.

The Settlers canal, with a capacity of 5000 inches, will get 1600 inches under the one-fifth and 2700 under the one-third plan.

Serious Situation for Boise.

An interesting situation is presented regarding the Perrault canal, which furnishes water for nearly all the city lots and for the trees along the streets and for the city sewers. Under the order of Judge Stewart, as about to be enforced by Water Commissioner Lowell, only 100 inches can be delivered to the canal. Shortly before Judge Stewart was taken sick he issued a mandatory injunction compelling the owners to deliver 60 inches to Robert Wilson throughout the season and this injunction is still in force. In addition to the injunction order there are two orders outstanding in mandamus suits compelling the delivery of five inches in each case to the plaintiffs in action.

This will leave 30 inches for distribution to the remaining farm lands, gardens and city lots, which is not enough to wet the bottom of the canal.

This may become a very serious matter for the people of the city, especially when considered in the light of the fact that the Perrault is one of the oldest canals and water rights on the river.

It is not likely the supply for sewers will be curtailed, as the water used for flushing purposes goes directly to the river again.

Only for Gardens and Orchards.

Commissioner Lowell said the people in the lower part of the valley had given up hope of irrigating any of their property excepting their orchards and gardens. The restrictions of the order will place farmers in the upper end of the valley in the same position. The loss to the hay crops will be heavy, but in this end of the valley the grain has matured far enough to fill out nicely without further irrigation.

It was suggested to Mr. Lowell that a better plan might have been to alternate with the farmers below, giving them all the water for a few days at a time, and sending it down with a rush by releasing the water raised by the Barber dam. He believed such a plan would not furnish the desired relief. The river bed would have to be soaked up every time and very little water would reach the farmers below. In any event, he added, their crops could not be saved now and all they wanted was enough water to keep their gardens and orchards alive.

Copy of the Order.

The following is a copy of the order made by Judge Stewart:

In the district court of the Seventh judicial district of the state of Idaho, in and for Canyon county. Farmers' Co-Operative Ditch company, a corporation, plaintiff, vs. Riverside Irrigating District, limited, a corporation, et al., defendants—Interlocutory order.

This cause came on for hearing upon the application of plaintiff and defendants and the affidavit of H. M. Heiges on behalf of the said plaintiff and defendants herein, the stipulation of the attorneys for the several parties hereto, and the evidence hereinbefore submitted, for a temporary order, pending the final decree herein, distributing the waters of Boise river equitably among the several parties entitled thereto, and after careful and due consideration of the above matter and application, a good and sufficient cause and reason, appears for such order.

Now, therefore, it is hereby ordered: That the water commissioner of water division No. 2, of the state of Idaho, be and he is hereby authorized and directed to distribute all of the waters of Boise river during the pendency of the above entitled cause and until the further order of this court, to the several parties hereto, equally in proportion to the acreage irrigated by each of said parties, as shown by the evidence in this cause heretofore submitted, which is (as nearly as can be determined for temporary purposes and approximately) as follows, to-wit:

	Acres.
Ross ditch	400
Mammon, et al ditch	300
Stockton ditch	280
Boone, et al ditch	1,000
Centre Point	2,000
Eureka No. 2	1,000
American canal	2,000
Pioneer Dixie ditch	2,500
Stickenberg canal	300
Campbell ditch	600
Sebree canal	10,000
Riverside canal	5,000
Mason creek ditch	2,000
Canyon County Water Co.	3,500
Caldwell high line canal	7,500
Kennedy ditch	200
Phyllis canal	15,000
Middleton mill slough	4,000
Middleton canal	6,000
Webster slough	500
Conway ditch	200
Catlin ditch	1,000
Joplin ditch	200
Eagle Island ditches	300
Pioneer ditch	1,500
Ballantyne ditch	800
Dry Creek ditch	2,000
Eureka No. 1	2,000
Little Union ditch	500
Farmers' Union canal	6,000
Valley ditch	1,500
Thurman mill slough	2,000
Settlers' canal	5,000
Davis canal	700
Davis ditch	100
Ridenbaugh canal	25,000
Rapid Transit canal	200
Boise City canal	2,000
Boise mill ditch	500
Babb ditch	1,000
Perrault ditch	500
Reeves ditch	200
Keech & Bein ditch	100
Coston ditch	100
New York canal	7,000

Done this 25th day of July, 1905.

GEORGE H. STEWART,
Judge.

Filed July 25, 1905.
JOHN A. TUCKER,
Clerk of the District Court.

PID001243

CO-OPERATIVE PLAN ACCEPTABLE

Land Owners on Kuna High Line Will Help Government Build Lateral.

Meeting Held Near Kuna Yesterday to Consider Proposition of Building Lateral from New York Canal to Irrigate 23,000 Acres of Land.

At the school house west of Kuna yesterday afternoon was held a meeting of land holders on the Kuna high line directors of the Payette-Boise Water Users' association, and representatives of the reclamation service, when the matter of building a lateral from the New York canal from near Mora 13 miles west along the base of the Kuna butte, to irrigate 23,000 acres of excellent land between the Mason creek high line and the Kuna high line, was fully discussed. As a result of the meeting a resolution was passed that it was the sense of the meeting that the water users' association should make a contract with the reclamation service for the lateral to be constructed under the direction of the association and that it be given time checks by land holders to be acceptable by the reclamation service.

This is another step in the co-operation of ranchers with the government in completing irrigation projects, and although the matter has not yet advanced any farther than the holding of the meeting, it is understood that the project will be carried out, as it is stated that representatives of the reclamation service first brought the matter up and that the service is willing at any time to enter into an agreement whereby land holders may themselves enter upon the construction of the lateral and receive credit for their work when the lateral is completed and payments are due on their water rights.

The directors of the water users' association at the meeting were D. R. Hubbard of Boise and Messrs. Partridge and Walling of Nampa. Engineer Davis represented the reclamation service and had with him maps, estimates, etc., of the project. It is proposed to build the lateral 14 feet wide on the bottom.

Resulting from the meeting a special meeting of the Payette-Boise Water Users' association is to be held the first Tuesday of next month when the question of an agreement with the reclamation service will be further considered.

PID001244

DISTRICT COURT AT CALDWELL

Pioneer Irrigation District Opens Its Case.

CALDWELL, May 8.—Today the case before the district court was the opening of the pioneer Irrigation district case by hearing proof on the Franklin ditch. The Stapleton ditch was dug in the late sixties and was used to water the lands between Caldwell and Star on the south side of the Boise river and carried about 200 inches of water. In 1880 the ditch was enlarged to 10 feet on the bottom and about 1886 it was sold to the Caldwell Land & Improvement company the consideration being the delivery of 2500 inches to the Mason creek farm-

PID001245

ers. This latter company cleaned out and extended the ditch. The title to the ditch a few years ago passed to the Pioneer Irrigation district and has been greatly enlarged and improved.

William Kelliher of Meridian was in the city over Sunday.

Professor O. A. Christopher has purchased a couple of lots on Sixth south street and is having a handsome residence erected on the same.

M. N. Graves of Centralia arrived in the city this evening and lectured at the Presbyterian church on the temperance question.

Miss Laura Patton principal of the Middleton schools was in the city Saturday and Sunday.

Miss Una Madden is visiting in the city with relatives.

PID001246

DISTRIBUTION TO LOWER CANALS

Commissioner Lowell at Work in Vicinity of Caldwell.

(Special Dispatch.)

CALDWELL, Aug. 2.—Water Commissioner J. H. Lowell gave out the statement here tonight that as a result of the distribution of the water during the day the flow in the river tonight had reached the head of the canyon at Caldwell. The lower ditches are carrying the following amounts:

	Inches.
Phyllis ditch	5,000
Eureka No. 1	635
Canyon county ditch	1,200
Mason creek ditch	700

The Caldwell Highland ditch this morning was carrying 4500 inches, and this amount was cut down to 2500.

The Littleton ditches are carrying their proportion of water.

PID001247

SPF WATER ENGINEERING, LLC

By _____ Date _____ Client Moffatt Thomas - Pioneer Sheet ____ of ____

Chkd By _____ Description Conveyance Losses - Highline, Frank., Strayhorn, Mason Ck. Job No _____

Highline Canal

Depth		HWM → TOB
+200	3.0 ft	2.32
+100	2.5 ft	2.36
0	2.4 ft	2.32
-100	2.8 ft	2.11
-200	3.0 ft	2.56

Avg. 2.75 ' depth
+ Avg. 2.33' from HWM

Ditch Depth = 5.1' from TOB

Width	REW → LEW
+200	11.1 ft
+100	14.0 ft
0	10.6 ft
-100	11.7 ft
-200	12.0 ft

Avg. = 11.9 ft width

17.98	21.95	17.72
- 6.91	- 7.91	- 7.10
11.07	14.04	10.62
	20.18	17.64
	8.15	5.94
	12.03	11.70

Franklin Ditch

BdA = 2608 ft
FaA = 4159 ft
~~Gp = 15 ft~~
MtA = 3277 ft
MuA = 1938 ft
MuA = 302 ft
MwA = 5692 ft
OgA = 1459 ft
Tc = 527 ft

Strayhorn Slough

Ch = 823 ft
MoA = 2235 ft
MtA = 3633 ft
MuA = 998 ft
MwA = 481 ft
No = 1296 ft
Rc = 1505 ft
W = 985 ft

Mason Ck. Ditch

BdA = 2659 ft
BsA = 1182 ft
FaA = 1049 ft
LtA = 734 ft
MtA = 248 ft
MuA = 8304 ft
MvA = 314 ft
MwA = 6796 ft
No = 448 ft

Highline Canal

BdA = 620 ft
Ch = 255 ft
MoA = 343 ft
MtA = 2241 ft
MuA = 242 ft
No = 525 ft
PhA = 2183 ft
PhB = 689 ft
PpA = 11149 ft
PpB = 329 ft
Tc = 11705 ft
W = 49 ft

Saturated hydraulic conductivity (Permeability) (micro m/sec)

BdA	14-42
BsA	1.4-4.2, 14-42
Ch	42-141
FaA	42-141
LtA	4-14, 42-141
MoA	42-141
MtA	" "
MwA	" "
MuA	" "
No	141
OgA	141
PhA	4-14
PhB	4-14
PpA	4-14
PpB	4-14
Rc	—
Tc	4-14

Most seepage formulas use a unit seepage rate which some call "C" and others call "i". In English units these coefficients are expressed as cubic feet per square foot per day or simply feet per day.

The following table of "C" values is from American Civil Engineering Practice:[25]

Kind of Material	Loss per Day (in feet)
Cemented gravel and hardpan with sandy loam	0.34
Clay and clay loam	0.41
Sandy loam	0.66
Volcanic ash	0.68
Volcanic ash with some sand	0.98
Sand and volcanic ash or clay	1.20
Sandy soil with some rock	1.68
Sandy and gravelly soil	2.20
Concrete lining	0.33

The following table of "i" values is taken from the California Department of Water Resources Inspection Manual for use with the Etcheverry formula.

Kind of Material	Loss per Day (in feet)
Impervious clay loam	0.25 - 0.35
Medium clay loam underlaid with hardpan at depth of not over 2 to 3 ft. below bed	0.35 - 0.50
Ordinary clay loam, silt soil or lava ash loam	0.50 - 0.75
Gravelly clay loam, sandy clay loam, cemented gravel, sand or clay	0.75 - 1.00
Sandy loam	1.00 - 1.50
Loose sandy soils	1.50 - 1.75
Gravelly sandy soils	2.00 - 2.50
Porous sandy soils	2.50 - 3.00
Very gravelly soils	3.00 - 6.00

The following tables of "Average Seepage Rates" is from

generally use higher values

[25] Abbett, Robert W., American Civil Engineering Practice, John Wiley & Sons, Inc., New York, 1956, Vol. II, pp. 17-31, 17-32.

Worstell Conveyance Loss Equation: $S = 0.0667 \times (i) \times (W)$

S = seepage loss in cfs/mi
i = seepage rate in ft/day
W = top width of H_2O surface in ft

FIGURE A-9

CANAL SEEPAGE LOSSES[1]

Kind of Material	Loss per Day, ft
Cemented gravel and hardpan with sandy loam	0.34
Clay and clayey loam	0.41
Sandy loam	0.66
Volcanic ash	0.68
Volcanic ash with sand	0.98
Sand and volcanic ash or clay	1.20
Sandy soil with rock	1.68
Sandy and gravelly soil	2.20
Concrete Lining	0.33

Comparing the values above with permeability values in the soils reports shows a rough correlation. For estimating purposes, it would, as a last resort, be reasonable to take the permeability value from the soil report, convert it to feet per day and substitute for C in the equations. These would be worst-case values and it would be appropriate to lower them a little. Using this approach produces the following table.

PERMEABILITY OF SOIL

Soil Texture Class	Loss per day, feet
Hardpan	0.34
Clay, silty clay	0.12 - 0.4
Silty clay loam, clay loam	0.4 - 1.2
Sandy clay loam, silt loam, loam	0.4 - 1.2
Sandy loam, very fine sandy loam	1.2 - 4.0
Fine sandy loam, loamy sand	4.0 - 12
Sand and gravel	12 - 40

Shelby Brownfield, retired State Soil Scientist for the Soil Conservation Service in Idaho, provided the following table, based on his expertise and limiting to values of C in Abbett, above.

Soil Texture Class	Loss per day, feet
Hardpan	0.34
C,SiC	0.41
SiCL,CL	0.46
SCL,SiL	0.51
SL,vfSL	0.66
fSL,LS	1.20
S,gravel	2.20

[1]Abbett, Robert W., Water Requirements, American Society of Civil Engineers, Practice Manual, Vol. 2, p. 17-31.