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DEPARTMENT OF
WATER RESOURCES

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**SUPPLEMENTAL DIRECTOR'S REPORT REGARDING
SUBCASE NO. 63-367**

In Re SRBA

Twin Falls County Civil Case No. 39576

Consolidated Subcase 92-26

Report to the SRBA District Court

Prepared by the Idaho Department of Water Resources
David R. Tuthill, Jr. Director

May 16, 2008

I. INTRODUCTION

In accordance with Idaho Code § 42-1412(4) and Administrative Order 1, the Director of the Idaho Department of Water Resources (“IDWR” or “Department”) submits this Supplemental Director’s Report regarding subcase number 63-367. This report is submitted in response to Judge Melanson’s Order Setting Deadline for I.R.E. 706 Reports / Notice of Scheduling Conference, dated January 25, 2008 and verbal order approving extension to May 15, 2008. The Supplemental Director’s Report (“Report”) sets forth the basis of IDWR’s recommendation for the above-listed water right and was prepared under the supervision of David R. Tuthill, Jr., Director, IDWR.

The following IDWR employees have knowledge of the information contained in this Report: David R. Tuthill, Jr., Director of IDWR and Jan Schurte, Adjudication Unit Supervisor, IDWR Western Regional Office.

II. PROCEDURAL HISTORY

On December 16, 2005, the Director of the Department filed with this court the Director’s Report for Reporting Area Basin 63 Part 2. The water right at issue here was included in this filing. This water right contained the following subordination provision as a remark on the priority date element:

The appropriator shall exercise this right in a manner that recognizes the historic practice that the use of water for power generation is incidental to the rights of others to the use of water for other purposes. The appropriator shall not make a delivery call for hydropower generation except as against junior hydropower rights.

This remark is commonly referred to as the historical subordination practices remark.

On or about April 21, 2006, the United States of America acting through the Department of Interior, Bureau of Reclamation (“BOR”), filed an objection to the Director’s recommendation for this right. The BOR objected to the historical subordination practices remark and a quantity remark. The State of Idaho filed a timely response to the objection. On July 10, 2007, the Court granted Idaho Power Company’s Motion to File Late Response.

On October 22, 2007, this court issued an order consolidating 29 cases involving the historical practices subordination remark based upon motions filed by the BOR and Idaho Power Company. (Order Separating and Consolidating Common Issue; Designating Consolidated Subcase; Notice of Hearing ETC (“Order”), (Oct. 22, 2007), at 1-2, 4.) The court withdrew its order of reference to the special masters as to the issue of the historical subordination practices remark and ordered that the issue proceed before the presiding judge. (Order, at 4-5.) The court ordered that all objections pertaining to other contested elements remain with the respective special masters to proceed on a separate track. (Id. at 5.)

On January 25, 2008, the court issued an order asking IDWR to provide the basis for IDWR’s inclusion of the historical subordination practices remark in its recommendations for this water right. In response to this request, IDWR submits this Supplemental Director’s Report.

III. AUTHORITY

Under Idaho Code § 42-1411(2), the Director is required to determine the elements of a water right including determination of remarks necessary for the definition, clarification or administration of the water right. Generally, the goal of the Department

in the adjudication is to ensure that the significant historical practices of a basin are reflected either in the elements of water rights or in a general provision for that basin. This ensures that administration in the basin will continue to operate as it has historically operated. Where changes in the long term historical practice of a basin would negatively effect other water rights in the basin, it is necessary for the proper administration of the water rights in that basin for the practice to be reflected in the water rights or in a general provision so that administration in the basin can continue to operate as it has historically operated. The historical subordination practices remark is included in the recommendation of water right number 63-367 because the remark is necessary for the definition, clarification and future administration of the water rights in Basin 63.

IV. BASIS OF THE RECOMMENDATION

A. Description of water right number 63-367.

A copy of IDWR's recommendation of water right number 63-367 is attached as Exhibit A. IDWR recommended the right for the claimed quantity of 1,500 cfs, for the claimed purpose of hydropower generation, with the claimed priority date of June 15, 1909. IDWR understands that none of these elements is in dispute. Rather, the BOR's objection is solely to the remarks that IDWR included in the quantity and priority date elements. The quantity remark was included in error, and it is IDWR's understanding that the objection to it will be resolved by the deletion of the remark. Therefore the only portion of the objection remaining for resolution is the objection to the historical subordination practices remark in the priority element of the water right recommendation which was quoted in Part II, above.

The priority date claimed by the BOR and recommended by IDWR comes from the decree entered by District Judge Ed L. Bryan in the case of *Pioneer Irrigation District v. American Ditch Association, et al.* (Seventh Judicial District Court, Canyon County, February 14, 1929). A copy of the relevant portion of that decree is attached as Exhibit B.

Diversion Dam is located on the Boise River, about two miles below Lucky Peak Dam. Diversion Dam was constructed in 1908 as the point of diversion for the New York Canal. According to the BOR's Draft Environmental Assessment, prepared in 2001 pursuant to a proposed rehabilitation project on the power plant on Diversion Dam, the power plant was constructed in 1912, originally to provide electric power to aid in the construction of Arrowrock Dam.¹ (A copy of the Draft Environmental Assessment is attached as Exhibit C.) The power plant was then used on and off for the next seventy years, until it was placed in ready reserve status in 1982. The power plant was subsequently rehabilitated and placed back into operation in 2004.²

B. It is IDWR's understanding that the BOR does not use its hydropower rights in a manner detrimental to the operation of its irrigation projects.

IDWR's historic understanding is that the BOR's generation of hydropower is a use of water that has always been incidental to the use of water for irrigation of project lands. In other words the BOR does not use its hydropower rights in a manner detrimental to the operation of its irrigation projects. IDWR is unaware of any instance

¹ IDWR recognizes that this date is facially at variance with the priority date decreed by Judge Bryan, but having no information to explain the apparent discrepancy, it recommended the claimed and decreed priority date.

² IDWR recognized that the period of non-use between 1982 and the date the SRBA claim was filed in 1989 raised the question of whether the right has been forfeited for non-use. However, as it did not have clear and convincing evidence of five years of unexcused non-use, and recognizing the potential existence of the defense of resumption of use even if the right had been forfeited, it did not recommend the claim be disallowed.

where this is not the case. Rather, in other projects such as American Falls, Palisades, and Minidoka it is clear that hydropower is incidental to irrigation. In that regard see e.g. the Supplemental Director's Report Regarding Subcase Nos. 1-217, 1-218, 1-2064, 1-2068, 1-4024, 1-4025, and 1-4054, dated April 10, 2008. (A copy of this report, without attachments, is attached as Exhibit D.)

C. Since the water used to generate hydropower at Diversion Dam consists only of water passing the dam to fill other rights, the BOR has never made a call for water right number 63-367.

In 2005, when IDWR was preparing its recommendation of water right number 63-367, Jan Shurte, the Western Region Office's Adjudication Unit Supervisor, discussed the question of the operation of the Diversion Dam hydropower plant on two occasions with Lee Sisco, longtime Boise River Watermaster. In line with IDWR's general understanding, Mr. Sisco told her he had always understood that 63-367 was a "run of the river" right, meaning that it utilized for hydropower production only such quantity of water as was passing the Diversion Dam generating facility at any given point in time to satisfy downstream rights. Mr. Sisco reported that in his tenure as watermaster the right had never been called, and that he had never seen watermaster records indicating it ever had been called. The information received from Mr. Sisco is confirmed by the Affidavit of Lee Sisco, dated May 12, 2008, a copy of which is attached as Exhibit E.

Mr. Sisco's understanding that hydropower use at diversion dam has always been incidental to irrigation is also confirmed by BOR documents in IDWR's possession.

In 1926, when the Diversion Dam power plant was less than fifteen years old, B. E. Stoutemyer, the BOR's district legal counsel, drafted a memorandum to the Commissioner of Reclamation concerning a proposed contract with Idaho Power

Company for the use of the plant. Paragraph 3 of that memorandum begins with the following sentence:

On account of the storage of most of the winter flow of Boise River either in the Deer Flat or Arrowrock Reservoirs, very little power can be developed during the winter season, but the power plant is capable of developing a considerable amount of power through the irrigation season, which is available for pumping water for irrigation purposes.

Memorandum dated May 25, 1926, from District Counsel, B. E. Stoutemyer, to Commissioner, Washington, D. C., at 1. (A copy of this memorandum is attached as Exhibit F.) This statement demonstrates that at the time the generation of hydropower at Diversion Dam was a purpose incidental to the wintertime storage of water for irrigation, but that when the storage water was released during the irrigation season from Arrowrock Reservoir that water, as well as direct flow, could be used for power generation.

This is confirmed by a statement from a 1953 BOR report entitled Boise Project, Idaho, Revised Allocation and Payment Report, a portion of which is in the possession of IDWR. Page 5 of that report contains the following observation:

The power plant at the Boise Diversion Dam utilizes the head created there to generate a small amount of power during the summer season. It uses flows passed to meet downstream irrigation rights.

(A copy of the portion of this report in the possession of IDWR is attached as Exhibit G.)

The historic practice of subordinating the use of water for hydropower production at Diversion Dam to the use of water for other purposes has continued into the present time. In the 2001 Draft Environmental Assessment, referenced above, the BOR contemplated no change in practice after the power house was rehabilitated. At page 7 of the Assessment it made the following statement:

Operation of the rehabilitated powerplant would be run-of-river. No changes in releases from Lucky Peak Dam would be made for power production.

See Exhibit C at 7. A more complete description of how the BOR envisioned it would operate the rehabilitated powerhouse is found at page 12 of the Draft Environmental Assessment:

Under the Proposed Action [rehabilitation of the powerhouse] river flows and storage levels of upstream reservoirs would not change compared to No Action [no rehabilitation of the powerhouse]. Diversion Dam Powerplant would be operated as a “run-of-river” facility, and there would be no changes made in Lucky Peak releases to accommodate power production. Reclamation anticipates operating the powerplant during flood control releases and during the irrigation season – generally from February or March through October in most years.

Exhibit C at 12. (Bracketed material added for clarity.) IDWR has no information suggesting that since the rehabilitated power plant began operation again in 2004 it has been operating in any manner different from what is described above.

D. The BOR could not place a delivery call for water right number 63-367 without negatively impacting its own upstream storage rights.

IDWR is aware that the location of Diversion Dam is such that no call ever has or ever will be made for delivery under water right 63-367. The reason for this is (1) in a call the BOR has no right to pick and choose which juniors to call out, and (2) therefore if the BOR were to place a call, the most likely juniors to be implicated in the call would be the BOR’s own upstream storage rights.³ The quantities potentially available from upstream non-storage rights junior to the BOR storage rights is so miniscule⁴ it would as a practical matter be impossible to make a call without involving the BOR storage rights.

³ IDWR is aware that pursuant to *U.S. v. Pioneer Irr. Dist.*, 144 Idaho 106, 157 P.3d 600 (2007) title of these rights has been split between the BOR and the irrigation districts holding the rights in trust for the end users. IDWR refers to them as BOR rights only for ease of description.

⁴ The Boise Project Board of Control does hold two permits for hydropower generation at the Lucky Peak Power Plant Project. Permit number 63-9019 is for a diversion rate of 5,700 cfs with a priority date of August 31, 1977. Permit number 63-11069 is for 2,500 cfs with a priority date of November 15, 1989. However, these permits would not be available for 63-367 to call out because each permit merely adds hydropower production as an additional use of water that passes through Lucky Peak Dam for other purposes, under other rights. Thus, each of the permits contains the following condition: “This water right

E. Conditions in the past that made a delivery call for water right number 63-367 a practical impossibility will continue to exist in the future.

The same reasons that explain why to IDWR's knowledge the BOR has never made a call on 63-367 in the past, will continue to exist in the future, thus demonstrating that the BOR will have no reason to make a call in the future. This is because any future significant upstream water development is going to be in the form of additional upstream storage—e.g. Twin Springs Dam—with which should the project ever come into being, the BOR is almost certainly going to be intimately involved, and in which future junior storage right it is almost certainly going to possess a significant legal or practical interest it will wish to protect.

F. From the factors discussed above IDWR determined that water right number 63-367 was established to be used in a manner that precluded the BOR from ever placing a delivery call for it.

IDWR knows of no information indicating that water right number 63-367 ever was intended to use any water other than water being delivered for use pursuant to other downstream rights. Were such not the case, and for some reason were the BOR to attempt to place a call for delivery of the right, such an act would not only confound the settled expectations of other appropriators, but would discombobulate the BOR's operation of the Boise Project, particularly with regard to its upstream storage rights and the fulfillment of the contracts for that storage water held by its own downstream constituents. Hence IDWR concluded that the BOR intended this right not to interfere with present or future upstream consumptive development from the moment it first developed the right. For that reason IDWR does not view the historic subordination

does not convey any authority to require or demand the release of water but shall only be effective to allow generation of hydroelectricity using water released under existing rights and operating procedures for irrigation, flood control, and fish and wildlife purposes.”

practices remark as being a limitation imposed upon a pre-existing right, but rather views the remark as an expression of an essential attribute of the right that has existed since the right's very beginning, which must be listed on the face of the water right description in order to properly define, clarify and administer the right pursuant to Idaho Code §42-1411(2)(j).

V. CONCLUSION

For all these reasons IDWR believes that inclusion of the remark in question is necessary for the proper definition, clarification and administration of water right number 63-367, and that the objection to that remark is not well taken.

Submitted this 15th day of May, 2008.



David R. Tuthill, Jr.
Director, Idaho Department of Water
Resources

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I served a true and correct copy of the following described document on the persons listed below by electronic mail and United States mail with the correct postage affixed thereto on this 19th day of May, 2008.

Document Served: SUPPLEMENTAL DIRECTOR'S REPORT REGARDING
SUBCASE NOS. 63-367.

Persons Served: IDAHO POWER CO.
Represented by:
JAMES C. TUCKER
IDAHO POWER CO.
P.O. BOX 70
BOISE, ID 83707

IDAHO POWER CO.
Represented by:
JOHN K. SIMPSON
1010 W. JEFFERSON, STE. 102
P.O. BOX 2139
BOISE, ID 83701-2139

STATE OF IDAHO
Represented by:
NATURAL RESOURCES DIV. CHIEF
STATE OF IDAHO
ATTORNEY GENERAL'S OFFICE
P.O. BOX 44449
BOISE, ID 83711-4449

UNITED STATES OF AMERICA
USDI BUREAU OF RECLAMATION
Represented by:
US DEPARTMENT OF JUSTICE
ENVIRONMENT & NATL' RESOURCES
550 WEST FORT STREET, MSC 033
BOISE, ID 83724

JAMES S. LOCHHEAD
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ADAM T. DEVOE
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BOISE, ID 83720-0098

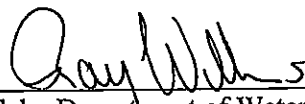

Idaho Department of Water Resources

EXHIBIT A

12/12/2005

IDAHO DEPARTMENT OF WATER RESOURCES
RECOMMENDED WATER RIGHTS ACQUIRED UNDER STATE LAW

RIGHT NUMBER: 63-367

NAME AND ADDRESS: UNITED STATES OF AMERICA ACTING THROUGH
REGIONAL DIRECTOR PN REGION
BUREAU OF RECLAMATION
1150 N CURTIS RD STE 100
BOISE ID 83706-1234

SOURCE: BOISE RIVER

TRIBUTARY: SNAKE RIVER

QUANTITY: 1,500.000 CFS

This right shall receive 100 percent of its decreed quantity until the natural flow of the waters of the Boise River shall decrease so that all rights containing this condition cannot receive 100 percent of their decreed quantities, at which time this right and the other rights containing this condition shall first be cut to 75 percent of their decreed quantities, as the natural flow of the river decreases, beginning with the latest rights containing this condition and proceeding to the earliest rights containing this condition in the order of their priority dates, and after all of the rights containing this condition shall have been reduced to 75 percent of their decreed quantities, should the natural flow of the waters of the river decrease below the amount necessary to supply 75 percent of those decreed quantities, then this right and the other rights containing this condition, beginning with the latest and proceeding to the earliest, shall be reduced to 60 percent of their decreed quantities.

PRIORITY DATE: 06/16/1909

The appropriator shall exercise this right in a manner that recognizes the historic practice that the use of water for power generation is incidental to the rights of others to the use of water for other purposes. The appropriator shall not make a delivery call for hydropower generation except as against junior hydropower rights.

POINT OF
DIVERSION: T02N R03E S3 NWSW Lot 9 Within ADA County

PURPOSE AND
PERIOD OF USE:

PURPOSE OF USE
POWER

PERIOD OF USE
1/01 12/31

QUANTITY
1,500.000 CFS

PLACE OF USE: POWER Within ADA County
T02N R03E S03 Lot 9 NWSW

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.

EXPLANATORY MATERIAL: BASIS OF CLAIM - Decreed

EXHIBIT B

Annett made on March 23, 1900, but subject to the awards made in the said Stewart Decree it is entitled to the use of the waters of said Boise River diverted through what is commonly known as the New York Canal for domestic purposes and (except as herein specifically limited) for use of lands lying under the same in the following amounts from the following dates:

[63 0301	1062.08 second feet from Dec 14, 1903]	Superseded by
63 0302	634.00 " " " June 16, 1909	Sutton Order dated
		1-30-1932,

That subject to the awards made in
→ said Decree it is entitled to (1500.00 second
63-036) feet from June 16, 1909 for power purposes only at
the Government power plant at its diversion dam
at the head of the New York Canal; and to
63 0302 8000.00 second feet from January 13,
1911, for storage in Arrowrock Reservoir during the
flood water season only and thereafter to be drawn
out and used in the irrigation of lands of the
Boise Project, and other lands entitled to the same.

And subsequent
continuation
by Eversland
dated June 23,
1933. Watermaster
records indicate
that 1354.58 cfs
are delivered
under this order,
as defined in
the Sutton Order.
DRT
1-27-83

Dated February 14th, 1929

Ed L. Bryan
District Judge

Entered and Filed
9:30 A.M. Feb 16, 1929
Myrtle Bernard, Clerk
Rose Edwards, Deputy

11-529
Compared

MICROFILMED

EXHIBIT C

**DRAFT
ENVIRONMENTAL ASSESSMENT**

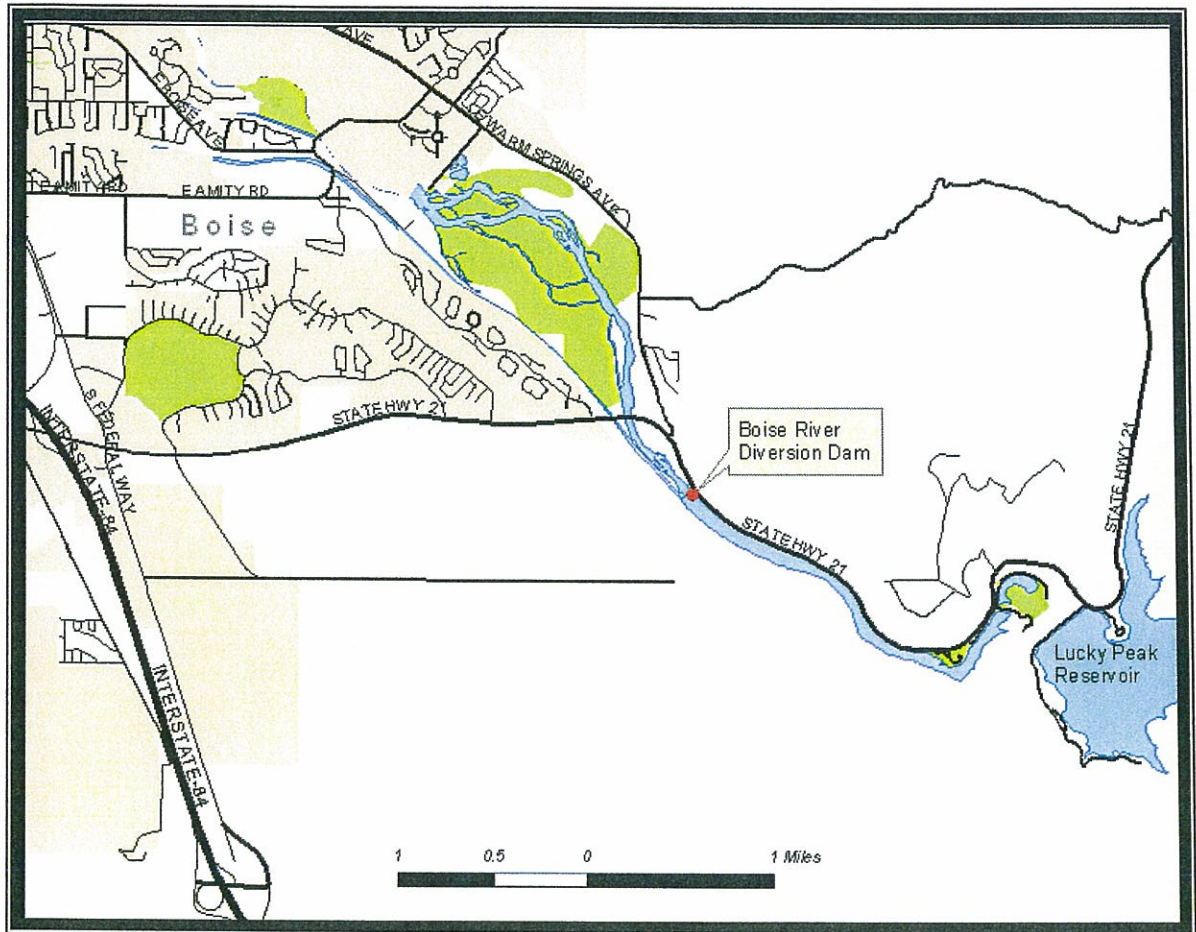
**BOISE RIVER DIVERSION DAM
POWERPLANT REHABILITATION**



December 2001

**Bureau of Reclamation
Pacific Northwest Region
Snake River Area Office
Boise, Idaho**

Location Map



DRAFT ENVIRONMENTAL ASSESSMENT

BOISE RIVER DIVERSION DAM POWERPLANT REHABILITATION

1.0 Purpose of and Need for Action

1.1 Proposed Action

The Bureau of Reclamation (Reclamation), is proposing to rehabilitate and resume operation of the Boise River Diversion Dam Powerplant in partnership with Bonneville Power Administration (BPA). The powerplant was placed on inactive ready-reserve status in 1982 and except for periodic test operations, has not been operated since then.

1.2 Underlying Need for Action

The Northwest Power Planning and Conservation Act (Northwest Power Act, 16 U.S.C. § 839):

- requires BPA to have sufficient resources to meet the electric power requirements of its customers;
- directs the BPA Administrator to acquire renewable resources to the maximum extent practicable; and
- authorizes Reclamation and BPA to undertake additions, replacements, and improvements at Federal projects in the region.

BPA prepared its Resource Programs Environmental Impact Statement (EIS) in 1993 to evaluate the trade-offs among resources to meet load. The BPA Administrator chose to implement the Emphasize Conservation Alternative, which supported the development of new renewable resources, as well as conservation and efficiency improvements. In addition, the Administrator has chosen to implement the market-driven alternative from BPA's Business Plan EIS (June 1995). This alternative supports using renewable resources to meet BPA's long-term load obligations. BPA has been acquiring power from wind resources through long-term contracts. BPA also has been evaluating improvements at other Federal projects in the Pacific Northwest.

BPA's most recently published load and generation forecasts project that there will be a federal firm energy deficit by 2010 (Pacific Northwest Loads and Resources Study, 1999). In addition, the Northwest Power Planning Council has forecasted that BPA will need additional energy resources to serve its customers by 2003.

BPA needs additional renewable resources to meet the load requirements of its customers in the southern Idaho area. Idaho is a net importer of power, meaning not enough power is generated in Idaho to meet Idaho loads. Likewise, BPA also must transmit power from Washington and the rest of the region to meet Federal loads in Idaho. Presently there are transmission constraints limiting the amount of power that can be imported into Idaho. However, relief of transmission constraints into Idaho still not meet the additional power needs in Idaho and throughout the region. The proposed improvements at Boise River Diversion Dam Powerplant would satisfy part of this need.

1.3 Purposes

The purposes of the proposed action are to:

- help BPA assure an adequate, economical, efficient, and reliable power supply;
- minimize engineering and construction uncertainties;
- ensure consistency with Reclamation and BPA environmental and social responsibilities,
- obtain administrative efficiency;
- preserve the historic attributes of the facility;
- optimize the use of the water resource of the Boise River; and
- maintain cost-effectiveness.

1.4 Background

Boise River Diversion Dam is located about 7 miles southeast of Boise, Idaho on the Boise River and about two miles downstream from the U.S. Army Corps of Engineers' (Corps) Lucky Peak Dam (Location Map). Diversion Dam was completed in 1908 and is the diversion point for the New York Canal; which delivers irrigation water to Lake Lowell and lands southwest of Boise and Nampa; and the much smaller Penitentiary Canal which serves northeast Boise (Figure 1). The powerplant was constructed in 1912 originally to provide power for the construction of Arrowrock Dam. After Arrowrock Dam was built, the plant operated for 70 years to supply power for irrigation pumping in Reclamation's authorized projects in southern Idaho and eastern Oregon, with surplus power being marketed by BPA.

The original powerplant consists of three generating units, each with a nameplate rating of 157 amperes at 2300 volts, for a total power generation capacity of 1,875 kilowatts (kW) at a 100% power factor (1,500 kW at 80% power factor). The generators were specified to operate continuously at 125% of rating, for a maximum output of 2,340 kW. Historical records show that the plant was routinely operated at 2,220 kW.

All equipment within the powerplant is essentially as furnished in 1912, and the general plant interior condition is good. The dam and powerplant were listed on the National Register of Historic Places by the Idaho State Historical Society in 1972. This recognition was given due to

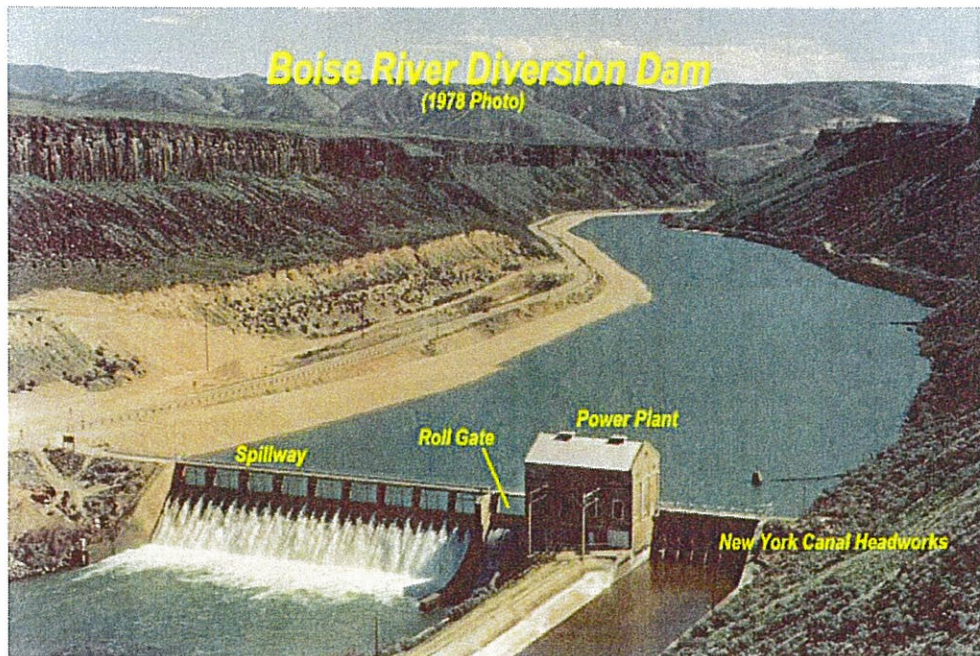


Figure 1 Boise River Diversion Dam looking upstream. Flow over the spillway is approximately 2,000 cfs.

the pivotal role the dam and powerplant played in the development of the Boise Valley, the exceptional condition and physical appearance of the original equipment, and the significant historic and technological contribution of the structure.

The plant has been in ready-reserve status since 1982 due to lack of funding to rehabilitate equipment that was increasingly deteriorating after 70 years of service. There are numerous safety and maintenance problems that must be addressed before the plant is returned to operation.

Reclamation has studied whether to rehabilitate or replace the powerplant since the early 1990's. In 1995, BPA agreed to fund and Reclamation agreed to undertake an investigation of the rehabilitation of the major features of the facility. Due to market uncertainties resulting from deregulation of the electric utility industry, an amendatory agreement was adopted in 1996 to defer the investigation until an unspecified date. BPA recently commissioned a study which summarized past studies and looked at refurbishment and replacement options for the powerplant (HARZA 2001).

1.5 Scoping of Issues and Concerns

In July of 2001, Reclamation mailed a scoping document to over 120 agencies, Indian tribes, members of Congress, organizations and individuals soliciting their help in identifying any issues and concerns related to the proposed action. Reclamation received nine responses to the public scoping effort. The issues identified in the responses are summarized below:

<u>Responder</u>	<u>Issues</u>
Lucky Peak Power Project	Reduced generation at Lucky Peak Powerplant, economic effects
Boise Project Board of Control	Reduced generation at Lucky Peak; effects on canal diversions, flood control, winter operations, power rights
Idaho Rivers United	Fish and water quality effects, other alternatives, environmental impact statement needed, need for fish screens
Idaho Department of Fish and Game	Effects to river flows, fish mortality
United Water Idaho	Silt at water intake
Ada County Developmental Services	Zoning conformance, noise, bald eagles,
Idaho Department of Agriculture	Impacts to canal diversions
Idaho State Parks and Recreation	Effects to historic integrity, Barber Pool downstream
U.S. Army Corps of Engineers	Requirement for Clean Water Act Section 404 permit

1.6 Related Actions and Activities

Inspection of Boise River Diversion Dam Powerplant Generating Unit 1

Reclamation determined that in order to accurately predict the scope of repairs necessary to the internal workings of the generating units, disassembly of at least one unit would be required. Disassembly and inspection generally would be considered part of normal maintenance. Because of the value of the historic integrity of the generating units, in May 2001 Reclamation consulted with the Idaho State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (Council) to ensure historic integrity would not be lost through disassembly if the proposal to return the powerplant to operation is not implemented. It was determined that in order to comply with Section 106 of the National Historic Preservation Act, a memorandum of agreement (MOA) among the SHPO, the Council, and Reclamation would be developed and implemented to mitigate potential adverse effects of the disassembly on the historic property. This MOA was executed May 30, 2001, and a categorical exclusion checklist - based on

maintenance and rehabilitation of existing facilities involving only minor changes in size, location, and/or operation - was approved July 13, 2001 to comply with the National Environmental Policy Act (NEPA). The disassembly and inspection work has been ongoing since mid-July 2001.

Repair of Diversion Dam Sluice Gates

During the winters of 1998 and 1999 repairs were made to the two Diversion Dam sluice gates which pass water at low winter flows. The work required dewatering one gate in order to work on the other. To accommodate construction, flows from Lucky Peak were reduced for a few hours to install a small coffer dam. A temporary access pad for equipment was also constructed immediately upstream of the dam.

2.0 Alternatives

The alternatives and project design features presented in this chapter were determined by the scope of analysis and the results of several studies with criteria such as cost effectiveness, repayment ability, efficient use of the water resource and preservation of the historical attributes of the current facility. The scope was defined by the purpose and need for the project as described in Chapter 1, and the issues developed during scoping. Using this direction and guidance, the reasonable range of alternatives developed include the proposed rehabilitation of the existing plant and the no action alternative required by NEPA. Other alternatives that were considered, but eliminated from detailed analysis are also discussed.

2.1 Alternative A - No Action

Under the No Action alternative, the Boise River Diversion Dam and powerplant would remain inoperative and in a ready-reserve status as it has since 1982. Some periodic minor maintenance would need to be performed on the facility to prevent major deterioration and preserve the powerplant's historic properties. Historic interpretive programs would continue at current levels as funding allows.

2.2 Alternative B (Proposed Action) - Rehabilitation of Existing Powerplant Facilities

Under alternative B, Reclamation and BPA would work together under a partnership agreement to rehabilitate the powerplant and resume operation in order to utilize the water resource at Diversion Dam for electrical power production. Rated capacity of the generators would be 750 kilovolt amperes each, with a plant capacity of 2250 kW.

Changes to the Powerplant

The proposed action would consist of overhauling the three original Francis-type vertical shaft

turbine generator units. The extent of modification to the generators would be based on inspection and analysis of one of the powerplant's dismantled generators. In order to minimize impacts to the historic integrity of the powerplant, original equipment would be used or left in place to the extent practical.

Several modifications would occur on the main level of the plant although most of the changes would take place on the lower level. The major and most visible changes planned for the generators are new generator windings and installation of protective covers around the generator housing to protect against inadvertent contact with the energized windings.

Proposed changes to the generator equipment on the lower level include rebuilding the concealed turbine components and replacing the existing wooden generator bearings with modern ones. The original generator belts would no longer be functional, but would remain in place on one generator to depict the historical configuration. A detailed description of actions under this alternative are as follows:

- A new governor on the lower level and a servomotor in the thrust bearing gallery would be installed. The existing governors, although no longer functional, would remain in place for historical considerations.
- The current excitation system would be replaced with new equipment. The original slate control panels and existing regulators on the main level would remain intact, and their appearance would not be modified although they would no longer be utilized.
- Butterfly gates would be repaired with new skin plates installed, the bearings refurbished, and sealing surfaces machined. All of these components are submerged during operation. Electric motor operators would be installed on the existing gear drives which are visible on the main level, upstream of the generators. A new polyethylene trashrack with 1.5-inch spacing would be installed.
- The circuit breaker gallery would be substantially modified. With the exception of one circuit breaker bay to be retained for historic purposes, the existing circuit breaker gallery including the concrete wings between the breakers would be removed. The cooling fans for the transformers near the circuit breaker gallery would be removed for access purposes, but with one retained in a non-functional capacity within the building.
- The powerplant crane would be modified. In order to better allow for centering of the crane hoist over the egress hatch, the hoist drive shaft would have to be reduced. The original crane would be left in place as a manual, hand-operated crane.
- A 2500 KVA power transformer would be installed outside and adjacent to the west side of the powerplant. Associated changes would include installation of a line circuit breaker,

lightening arresters and line instrument transformers. All of these facilities would be located within the already developed area of the powerplant.

- Generator circuit breakers, instrument transformers, surge protection and ground transformers would be installed on the lower level adjacent to the shop. The old shop would remain intact and not be dismantled.
- In order to gain equipment access for the replacement and repair of the trashracks and intake area, a temporary equipment access road and pad would be built from the north bank of the river to the powerplant intake using existing bottom sediment. After construction, the area would be returned to its original grade.

Construction is expected to begin in February 2002 and last 24 months. All rehabilitation work on the powerplant intakes would be performed during the non-irrigation season when the river is low. Remaining work on the interior of the plant could take place any time of year without any alteration of river flows or diversions.

Powerplant Operation

Operation of the rehabilitated powerplant would be run-of-river. No changes in releases from Lucky Peak Dam would be made for power production. In 1982 when the powerplant was placed in ready reserve status, the operating elevation of the forebay pool behind the Diversion Dam was lowered to approximately 2816.5 to lower the tailwater at Lucky Peak Powerplant to increase generation there. Reclamation proposes to operate Diversion Dam at this 2816.5 elevation initially and evaluate the plant's operational characteristics. Dependent on the operational characteristics of the refurbished equipment at different flows, an increase in elevation above 2816.5 may be required to obtain full power output. Maximum operating forebay pool elevation would not exceed 2818.9 feet.

The rebuilt powerplant would be fully automated with automatic protection for powerplant equipment and real-time monitoring and control of output. In the event of a shut down of the generators, the automated control systems would open the roll gate to maintain downstream flows at the levels that would have otherwise passed through the powerplant.

Mitigation Measures

Reclamation would evaluate operational characteristics of the powerplant at lower forebay pool elevations to evaluate the impacts to generation. Based on the results of this evaluation, the Diversion Dam pool would be held as low as possible while achieving full power output in order to have the least amount of impact to generation at Lucky Peak Powerplant.

2.3 Alternatives Considered But Eliminated From Detailed Study

Reclamation has evaluated several alternatives for power production at Diversion Dam since the early 1990's. The alternatives studied include building a new powerplant on the right dam abutment opposite the existing powerplant location, replacing the original generators and associated equipment at the present powerplant, and overhauling the existing generators and appurtenant features. Because of the historical value of the powerplant, preservation of the plant's historical integrity has been an important consideration throughout these studies. Complete replacement of the existing generators within the plant was eliminated from detailed study because of the significant alteration of the plant's historical integrity that would be required.

The two main alternatives studied that would optimize use of the water resource and largely preserve the existing powerplant were building a new powerplant on the right abutment and refurbishing the existing plant while retaining as much of the vintage equipment as possible. In March 2001, BPA commissioned a study to re-examine these two alternatives and consider any other potentially viable options. The study compared these two alternatives as well as a third option to build a new plant attached to the downstream side of the existing plant using much of the existing outlet works (HARZA 2001). The results of the study indicated that refurbishment of the existing plant would be most cost effective at \$6.6 million to construct, and would take the least time to complete.

Construction of a new powerhouse on the right bank presented major construction challenges with the proximity to Highway 21 and the Greenbelt pathway and uncertainties related to integration with the existing dam. The estimated construction cost was \$13.2 million although generation would be greater, the per unit costs were higher than the rehabilitation option.

The downstream extension powerplant option would cost \$9.9 million to construct but had several construction challenges and would require some demolition and reconstruction of the powerhouse water passages. Additional costs associated with this option, including replacing the sluice gates, also resulted in poor per-unit costs.

For the above reasons, Reclamation and BPA determined that the alternatives to construct a new powerplant on the right bank or an extension powerplant downstream were found not to be cost-effective, had too many engineering and construction uncertainties, and were therefore eliminated from consideration.

3.0 Affected Environment and Environmental Consequences

This chapter describes the physical, biological and social aspects of the environment that may be affected by the alternatives presented in Chapter 2 and addresses those resources that were identified through scoping as key components of the affected environment, or those that must be analyzed due to laws, regulations or policies.

Certain environmental parameters, both natural and human, that were raised as issues in scoping would not be affected by the Proposed Action. These include water quality (turbidity, suspended sediment, temperature); flood control; and canal diversions.

3.1 Reservoir Operation and Hydrology

3.1.1 Affected Environment

Boise River Diversion Dam is part of the Arrowrock Division of Reclamation's Boise Project which includes Anderson Ranch Reservoir on the South Fork of the Boise River, Arrowrock Reservoir on the Boise River and Lake Lowell, an off stream reservoir located south of Nampa. The Corps' Lucky Peak Dam is located two miles upstream of Diversion Dam. In 1988, four of the five irrigation districts of the Boise Project Board of Control (Board of Control), under a Federal Energy Regulatory Commission license, completed the construction of a three-unit powerplant at Lucky Peak Dam which provides a total capacity of 101,250 kW. Generation is under contract with the Seattle City Light Company.

Boise River Diversion Dam is the diversion point for the New York Canal which is about 40 miles long and has a capacity of 2,800 cubic feet per second (cfs) (Figure 1). The New York Canal feeds into Lake Lowell and numerous distribution systems which supply water for agricultural irrigation. Diversion Dam also supplies water for the much smaller Penitentiary Canal on the north side of the Boise River. Operation and maintenance of the dam and the headworks for the New York Canal were transferred to the Board of Control in 1992, however the dam and powerplant remain under Federal ownership.

Water is released from the Boise River reservoir system for flood control, irrigation, recreation, salmon flow augmentation, municipal and industrial (M&I) and fish and wildlife purposes. Detailed descriptions of reservoir operations can be found in Reclamation's system operation description (Reclamation 1997). In general, releases from Lucky Peak Dam during the fall and winter consist of minimum streamflows of 150-240 cfs for fish and wildlife. Depending on runoff projections, winter releases are also made for diversions to fill Lake Lowell and for flood control.

Once the irrigation season begins in mid-April water is released from Lucky Peak Dam and diverted at the New York and Penitentiary Canals with the remaining flow passing over the Diversion Dam spillway to serve downstream irrigation, M&I, or salmon flow augmentation. Flood control releases in excess of irrigation and M&I demand passes over Diversion Dam in spring and early summer of normal to wet years. Tables 1, 2, and 3 show average monthly discharge from Lucky Peak Dam, diversions into the New York and Penitentiary Canals, and flows below Diversion Dam from recent wet, dry, and average water years.

Table 1 Average Monthly Discharge (cfs) from Lucky Peak Dam in Average, Wet, and Dry Water Years												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1998 (avg yr.)	1384	155	245	244	1232	2076	3526	7780	7847	4892	4419	3479
1999 (wet yr.)	1341	236	210	163	1818	6905	6875	4740	5918	4576	4325	3654
2001 (dry yr.)	1223	243	244	246	245	244	1260	3112	3279	3077	3073	1248

Table 2 Average Monthly Canal Diversions (cfs) Into New York and Penitentiary Canals at Boise River Diversion Dam in Average, Wet, and Dry Water Years												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1998 (avg yr.)	868	0	0	0	0	270	1281	1492	2053	2268	2285	2035
1999 (wet yr.)	739	0	0	0	168	524	1603	2077	2265	2314	2269	2117
2001 (dry yr.)	688	0	0	0	0	0	416	1420	1479	1590	1655	486

Table 3 Average Monthly Flow (cfs) Below Boise River Diversion Dam in Average, Wet, and Dry Water Years												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1998 (avg yr.)	546	155	245	244	1234	1806	2245	6268	5794	2624	2134	1444
1999 (wet yr.)	602	236	210	163	1650	6381	5272	2663	3653	2262	2056	1537
2001 (dry yr.)	535	243	244	246	245	244	844	1692	1800	1487	1418	762

Releases from Lucky Peak Dam are normally made through the Lucky Peak Powerplant. Additional water may also be released through the outlets, but this usually only occurs during large flood control releases or during powerplant outages. There are two intake tunnels behind Lucky Peak Dam. The top of the main intake at Lucky Peak is at elevation 2846 which is 209 feet below full pool. An auxiliary outlet is located at elevation 2905 and is used during powerplant outages and during large flood control releases.

The elevation of the forebay pool behind Diversion Dam is controlled by the installation of flashboards on the spillway (Figure 1). When water is diverted into the New York Canal during irrigation season or to fill Lake Lowell from late winter to early spring, the average forebay elevation behind Diversion Dam has been approximately 2816.5 since 1982 when Diversion Dam Powerplant was placed in ready-reserve status. At this elevation the forebay pool is approximately 19 feet deep just above Diversion Dam and extends upstream for 2 miles to the tailwater of Lucky Peak Dam. Prior to 1982, when the Diversion Dam Powerplant was operating,

the average forebay elevation was maintained about 2 feet higher (2818.5) to maximize power production.

During the winter, when releases from Lucky Peak are normally from 150-240 cfs, water is normally passed through the sluice gates at the base of Diversion Dam. When sluice gates are in use, rather than a pool, the reach of river above Diversion Dam consists of a shallow meandering stream that courses through the sandy bottom sediments (Figure 2)

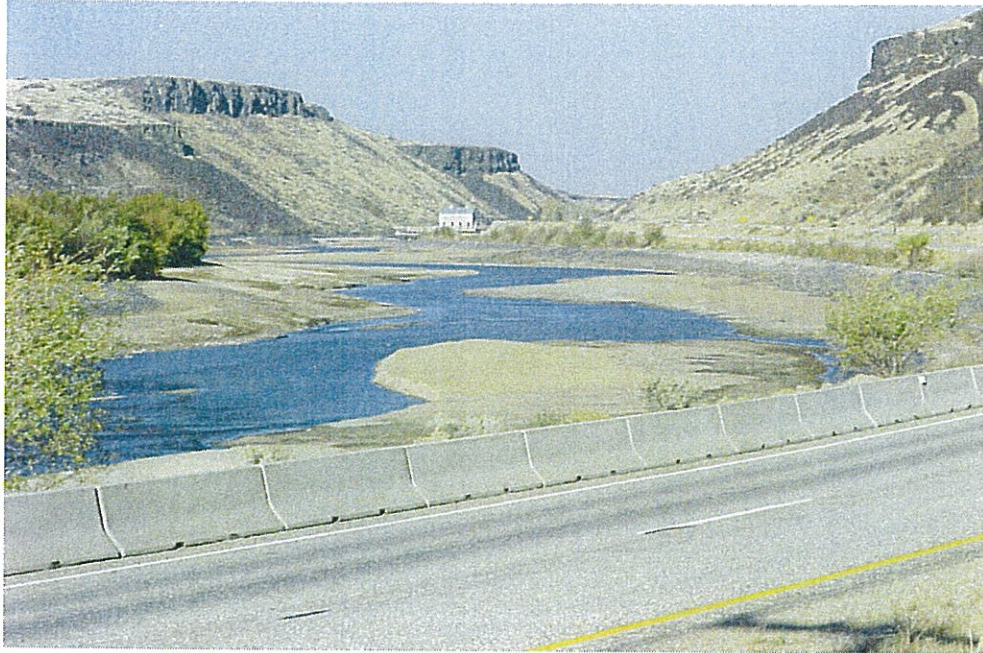


Figure 2 Boise River looking downstream towards Diversion Dam with powerhouse visible in the background. Flow is approximately 200 cfs- just after the end of irrigations season.

3.1.2 Environmental Consequences

No Action

Under the No Action alternative the Boise River Diversion Dam Powerplant would remain on ready-reserve status and would not be operated. River flows and reservoir levels above and below Diversion Dam would remain similar to operations over the past several years, depending on runoff in the basin, and would continue to serve the purposes of flood, control, salmon flow

augmentation, recreation, M&I, and fish and wildlife. The pool above Diversion Dam would continue to be operated at elevation 2816.5.

Proposed Action - Rehabilitate Existing Powerplant

Under the Proposed Action river flows and storage levels of upstream reservoirs would not change compared to No Action. Diversion Dam Powerplant would be operated as a “run-of-river” facility, and there would be no changes made in Lucky Peak releases to accommodate power production. Reclamation anticipates operating the powerplant during flood control releases and during the irrigation season - generally from February or March through October in most years.

Historical records show that a minimum flow of approximately 110 cfs is required to run each generator with no load and approximately 400 cfs is required at full load. With normal winter flows ranging from 150 to 240 cfs, operation of the powerplant at these flows during the winter is possible but not certain. Special measures would need to be taken to control icing on the dam and canal headworks. Reclamation would evaluate a number of factors, including the cost of operation versus the output gained, before deciding the mode of winter operation.

Maximum generation can be achieved with an estimated total flow through the three generators of 1,200 cfs. Any flow in excess of 1,200 cfs that does not pass through the powerplant or is not diverted into the New York or Penitentiary Canal would pass over the spillway. The amount of water that may be available for generation based on representative average, wet, and dry water years is indicated in Table 3. As shown in the table, during flood control releases less than half the flow past Diversion Dam would be used for generation, while later during the irrigation season about one half to two thirds of the flow would pass through the powerplant.

Since 1982, the dam has been operated at a forebay pool elevation of approximately 2816.5 feet, because full head was not required for power production. Dependent on the operational characteristics of the refurbished equipment, an increase in elevation above 2816.5 feet may be required to obtain full power output. During powerplant operation, the pool may be required to be as high as elevation 2818.9, the level specified as the operating elevation in the Standing Operating Procedures for the powerplant. This would be as much as 2.4 feet higher than average operation during diversions and under No Action. The higher forebay pool at Diversion Dam would have a corresponding effect of raising the tailrace at Lucky Peak Dam up to 2.4 feet higher. This forebay elevation would be maintained during irrigation, M&I, and flood control releases and possibly during winter low flow periods if power generation is economically justified. New York Canal Diversions at the higher forebay elevation would not be affected.

The rebuilt powerplant would be fully automated with automatic protection for powerplant equipment with real-time monitoring and control of output. In the event that the generators are shut down for whatever reason, the automated control systems would automatically open the roll gate (Figure 1) to maintain downstream flows at the levels that would have otherwise passed through the powerplant.

There would be no changes to river operations during the powerplant rehabilitation work. Most work, except for the trashrack replacement, is to the interior of the plant and water can be passed over the spillway during irrigation and flood control operation while construction is ongoing. Replacement of the trashrack would occur during the winter low flow period, and these flows would continue to be passed through the sluice gates which are located below the trashracks. Construction would not cause a noticeable increase in turbidity or suspended sediment based on similar work to the Diversion Dam sluice gates in the recent past.

3.2 Fish

3.2.1 Affected Environment

Idaho Department of Fish and Game (IDFG) does not have specific data for fish populations in the river reach between Lucky Peak Dam and Diversion Dam. Electrofishing data from immediately below Diversion Dam in 1995 indicate mountain whitefish are by far the most dominant species with a few suckers and an occasional wild rainbow trout present (IDFG unpub. data 1995). Although estimates of fish entrainment through Lucky Peak Dam have not been made, the rate of entrainment is probably low due to the low elevation of the outlets. Even during drought conditions when the reservoir may drafted 100 feet or more, the depth of the main outlet is still over 100 feet below the water surface. The depth of the seldom-used auxiliary outlet ranges from 150 to 50 feet under most operating ranges. Based on powerplant entrainment studies elsewhere, fish that are entrained are likely to be small (less than 8 inches long), but these small fish may have a fairly high survival rate in Kaplan turbines such as those at the Lucky Peak Powerplant even at high head (EPRI 1992).

Fish species present likely consist of mountain whitefish, rainbow trout and nongame species that have been entrained through Lucky Peak Dam. IDFG stocks rainbow trout in the Boise River below Barber Dam about 4 miles downstream from Diversion Dam and Lucky Peak Reservoir with rainbow trout and kokanee; however the river reach above Diversion Dam is not stocked. Diversion Dam likely serves as a barrier to upstream movement of fish. According to Idaho State Parks, some visitors do fish at Discovery State Park, immediately below Lucky Peak Dam, but angling use is low overall in the reach.

The channel bottom between Lucky Peak and Diversion Dams consists mostly of sand and silt that has settled in the pool above Diversion Dam with very little gravel or large cover for fish. It is unlikely that fish are able to spawn in this reach. Fish habitat is also limited during the winter when the pool is drained and flows reduced to 150-240 cfs, creating a shallow stream devoid of cover (Figure2).

Fish entrainment at Diversion Dam into the New York Canal has the potential to be high given that one fourth to one half the river flow is diverted during the irrigation season and there is no fish screen; however only small numbers of stranded fish, mostly nongame species, are observed in the empty canal prism at the end of the irrigation season, probably indicative of low numbers of fish in the river above Diversion Dam or low entrainment. Many of the few fish in this reach likely move downstream during spill over the flashboards when flows are high or through the sluice gates in the winter.

3.2.2 Environmental Consequences

No Action

Under No Action there would be no significant change in fish populations or habitat in this reach of the Boise River. Fish habitat would be most influenced by the amount of runoff in the basin and corresponding river flows. Entrainment of fish at the New York Canal would continue at its present rate.

Proposed Action - Rehabilitate Existing Powerplant

Under the Proposed Action, up to 1,200 cfs of the flow normally passing below Diversion Dam under No Action would be used for power generation. Entrainment of some fish through the Diversion Dam Powerplant turbines would likely occur. During much of the time the powerplant would be operating, water would also be flowing over the spillway, allowing for potentially safer fish passage. The numbers of fish or proportion of fish entrained through the powerplant turbines versus these other routes is unknown.

No specific fish mortality studies have been found for similar powerplants with similar fish populations upstream, however entrainment and mortality studies of Francis-type turbines in other areas are available. Studies compiled by EPRI (1992) indicate mortality in Francis turbines similar to those in the Diversion Dam Powerplant is higher with high hydraulic head and lower with peak operating efficiency. Average mortality of salmonids through Francis turbines studied was 18 percent, although all of these studies involved plants with higher head than Diversion Dam. Highest mortality was in relatively large fish with median size of 300 millimeters or greater, while small fish have a relatively high survival rates. Mortality of naturally-entrained small fish averaged 6 percent.

Since most fish in the reach between Diversion Dam and Lucky Peak are likely to be small individuals already having been entrained through Lucky Peak Dam, the fish mortality rate through the Diversion Dam turbines would be expected to be closer to the 6 percent range than 18 percent. Also, during much of the year, downstream fish passage would still be available over the spillway. Given these potential mortality rates, and the low numbers of fish that probably inhabit the river above Diversion Dam, the number of fish killed from operating the powerplant

would be relatively small numbers of mostly mountain whitefish, with nongame species and hatchery or wild rainbow trout comprising the remainder.

The loss of these fish is not likely to have a noticeable impact on the Boise River fishery below Diversion Dam. Mountain whitefish, and to a lesser degree wild rainbow trout are able to spawn in the river, and the loss of a small percentage of fish from upstream reaches would probably have an unmeasurable effect on these populations. Most rainbow trout in the Boise River below Barber Dam are stocked fish.

If the powerplant is operated during the winter low flow periods the forebay pool would be maintained for a longer period of time than the operation under No Action. This would improve habitat for the during low flow periods for the few fish that inhabit the river reach above Diversion Dam.

Mitigation

There is currently no mitigation proposed for the minor loss of fish that would occur under the Proposed Action. To date IDFG has not notified Reclamation that a fish screen or fishway providing passage is warranted for the minor loss of fish from the project.

3.3 Threatened and Endangered Species

3.3.1 Affected Environment

The following species listed by U.S. Fish and Wildlife Service (USFWS) for Ada and Canyon Counties (SP#1-4-00-SP-882) under the Endangered Species Act (ESA) either may occur in the project area or have the potential to be affected by the Proposed Action.

- bull trout (threatened)
- bald eagle (threatened)
- Canada lynx (threatened)
- Ute ladies'-tresses (threatened)
- gray wolf (experimental, non-essential population)

Anadromous fish species listed by NMFS potentially affected by the Proposed Action include:

- Snake River sockeye (endangered)
- Snake River spring/summer chinook (endangered)
- Snake River fall chinook (threatened)
- Snake River steelhead (threatened)
- Upper Columbia River spring chinook (endangered)
- Upper Columbia River steelhead (endangered)
- Lower Columbia River steelhead (threatened)

Middle Columbia River steelhead (threatened)
Columbia River chum salmon (threatened)

Bald Eagle

The Boise River from Anderson Ranch Reservoir downstream to the mouth of the Snake River is considered an important wintering area for bald eagles with up to 35 individuals counted in a single year below Lucky Peak (USFWS 1996). Winter habitat use along the Boise River includes communal night roosting and use of daytime perches for loafing and foraging. No nesting territories have been identified between Luck Peak Dam and the City limits of Boise.

Several studies of wintering bald eagles below Lucky Peak Reservoir have been conducted, with most of the effort concentrated between Lucky Peak Dam and the City of Boise. The studies that have been completed show that bald eagles usually arrive in early November and leave the area by March with the highest concentrations in January and February. A communal night roost is located in the Barber pool area about 2 miles downstream from Diversion Dam.

The diet of bald eagles wintering along the Boise River includes fish, birds and mammals. Hatchery rainbow trout appear to be important, but other fish species are also taken. Waterfowl often provide prey for bald eagles in this area and deer carcasses may be used if available.

Bull Trout

Bull trout are known to occur in the Boise River basin including Arrowrock, Lucky Peak and Anderson Ranch Reservoirs and in the Middle, North and South Forks of the Boise River upstream of the reservoirs. IDFG (1995) identified the Boise River upstream of Arrowrock and the South Fork upstream and downstream of Anderson Ranch Reservoir as key watersheds for this species. Bull trout inhabiting the Arrowrock and Anderson Ranch Reservoirs are believed to be adfluvial forms which spend several years in the reservoir until mature. In late spring, mature fish migrate from the reservoir into mainstem rivers and eventually to headwater streams where they spawn in the fall. After spawning, adults return to the reservoirs where they overwinter. Juvenile fish remain in the upper watersheds for up to three years before returning to mainstem rivers and reservoirs.

Telemetry studies have documented bull trout moving from Arrowrock into Lucky Peak Reservoir (Flatter 1998, 1999). These fish are likely not able to reproduce since they can't move back into Arrowrock, and bull trout appear to be absent from Mores Creek, the only potential spawning tributary to Lucky Peak Reservoir. Although entrainment and survival of bull trout through Lucky Peak Dam is possible, there has been no documentation of this through telemetry studies (Flatter 1998, 1999). Most bull trout in Lucky Peak are likely large individuals (>200mm) and unlikely to become entrained, and have a higher chance of being killed or injured if they do.

Gray Wolf, Canada Lynx, and Ute Ladies'-tresses

The Canada lynx is found in mountainous regions of Idaho in spruce, fir, lodgepole pine and Douglas fir forest habitat. The area around Boise River Diversion Dam is not Canada Lynx habitat.

Ute ladies' -tresses is a perennial orchid typically found in floodplains and wet meadows but may also occur in riparian shrub and woodland communities. It generally survives in areas where streams remain in a somewhat natural condition or where conditions mimic naturally created and maintained habitat. The terrain, hydrology and lack of riparian and wetland plant communities in the Diversion Dam pool and the disturbed nature of the river flood plain below appears to be unsuitable habitat for this species.

The gray wolf, currently listed as endangered, was historically present in the project area. This animal was extirpated from the western states about 1930. An experimental population of gray wolves was introduced into Yellowstone National Park and into central Idaho in 1995 and 1996. Wolves are now reproducing in the uppermost reaches of the Snake River and central Idaho, the upper Deadwood River drainage, and possibly the upper Boise River watershed in the Sawtooth Mountains. This population of wolves is considered "experimental, non-essential" by USFWS. There are no confirmed sightings of wolves in the area around Diversion Dam.

Anadromous Fish Species

None of the listed salmon and steelhead species occur in the project area, and the final critical habitat for the Snake River salmon does not include the Boise River. Reclamation is required under NMFS's 1995, and subsequent BiOp's to manage and release 427,000 acre-feet from the upper Snake River Basin (including the Boise River) to aid juvenile salmon and steelhead migration. Reclamation provided this amount annually from 1993 to 2000. Less was provided in 2001 due to severe drought conditions.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, habitat for bull trout and bald eagle in the Boise River near Diversion Dam would be most influenced by runoff and associated operations, especially during the winter. Continued development along the river below Diversion Dam may disturb wintering bald eagles, but habitat in the area above and immediately below Diversion Dam would remain similar to its present condition. Bull trout, Ute ladies'-tresses, gray wolves and Canada lynx are not found in the area and would not be affected.

The operation of Diversion Dam would not change storage and release of water from the three mainstem Boise River reservoirs and would not change Reclamation's ability to provide flow augmentation for these species. There would be no effect to listed anadromous fish under the Proposed Action.

Proposed Action - Rehabilitate Existing Powerplant

Under the Proposed Action, the operation of the Diversion Dam Powerplant would likely kill 6 to 18 percent of fish that are entrained into the turbines based on studies in other areas (EPRI 1992). As discussed in Section 3.2, this is not expected to cause a substantial decrease in fish populations in the lower Boise River and the bald eagle prey base in the lower river would remain adequate to support wintering birds. Any loss of prey would be so low as to be discountable. Fish that are entrained and either disoriented, injured, or killed during winter powerplant operation may be more susceptible to predation by eagles downstream of Diversion Dam.

Construction activities would consist of some increased vehicle traffic and parking near the dam and use of equipment immediately above to replace the trashrack. This level of human activity would not be appreciably more than what already occurs in the area along the highway and Greenbelt, and eagles are likely to be tolerant of it.

Based on the above, it is Reclamation's determination that the Proposed Action may affect, but is not likely to adversely affect bald eagles.

Bull trout are not known to occur in the reach of the river below Lucky Peak Dam, and the operation of Diversion Dam Powerplant would have no effect on this species.

The operation of Diversion Dam would not change storage and release of water from the three mainstem Boise River reservoirs and would not change Reclamation's ability to provide flow augmentation for the benefit of downstream anadromous fish species. Therefore there would be no effect to listed anadromous fish under the Proposed Action.

3.4 Cultural Resources and Sacred Sites

3.4.1 Affected Environment

Prehistory

In southwestern Idaho, human use of the Snake River region and its tributaries was one of increasing complexity in settlement and subsistence through time - - from highly nomadic groups of big-game hunters during the PaleoIndian Period to small groups of foragers operating from a more permanent base by the Late Archaic Period into historic times. At the time of European incursion into southwest Idaho, the Snake River Shoshone (represented by the Shoshone and

Bannock peoples) and Northern Paiute groups occupied the Boise River and the Payette River basins. Both populations utilized the lower Snake River area, while the latter group exclusively resided throughout middle and upper drainages.

There are no known prehistoric archaeological sites in the immediate area of Boise Diversion Dam and Powerplant. Those sites, however, are known to exist in the general area. Site 10AA99, a cave site above the Boise River (within ½ mile of Diversion Dam), has yielded an impressive array of artifacts, including cordage, basketry, dried fish, harpoon points, and small maize cobs. Excavations at the Lydle Gulch site (10AA72), a stratified campsite below Lucky Peak Dam, shows the area to have been occupied intermittently during the past 4,500 years. Other reported sites in the general area include talus burials, midden/quarry and toolmaking sites; rock shelters; lithic scatters; and petroglyphs.

History

The first long-term non-Indian occupants in southwest Idaho were fur traders. In 1813, a trading post was established near the mouth of the Boise River, although by 1840 the fur trade had essentially ended. With the discovery of gold, permanent Euro-American settlement of southwestern Idaho began. In 1863, groups began to settle along the Boise River and raise produce and hay to sell to miners. Settlers soon occupied all lands located on the river bottoms or on portions of the first bench that could be watered by simple gravity-flow irrigation ditches. By the 1880's the Boise valley was feeling the pinch of insufficient water to meet existing demands, let alone new commercial enterprise. By 1900, about 148,000 acres between Boise and Nampa were within the service area boundaries of private irrigation companies or cooperatives.

In 1902, Congress passed the Reclamation Act, which created the U.S. Reclamation Service, which later became the Bureau of Reclamation, and on March 27, 1905, Congress authorized construction of the Payette-Boise Project (now called the Boise Project). Between 1905 and 1909, USRS constructed the Boise Diversion Dam, the Deer Flat Embankments/Lake Lowell, twice enlarged and extended the New York Canal, and began to construct canals to deliver water stored in Lake Lowell to lands south and west of Nampa. Construction of Arrowrock Dam began in 1911 and was completed in 1915. In 1912, the powerplant was constructed at the Boise Diversion Dam to generate hydroelectric power needed for the construction of Arrowrock Dam. Arrowrock Reservoir provided the first large amount of stored water to foster irrigation expansion in the Boise valley.

Once construction of Arrowrock Dam was complete, the power generated by Boise Diversion Dam Powerplant was sold to residents of the small but rapidly growing town of Boise. The powerplant consisted of three-500 kW (at 80% power factor) generator units. Because of age, and operation and maintenance costs, the powerplant was retired from regular operation and placed on a ready-reserve status in 1982. In 1976, the unique character of the Boise Diversion Dam and Powerplant was recognized when the facility was listed on the National Register of Historic Places.

Boise Diversion Dam Powerplant retains much of its original construction and materials, both inside and outside the structure. The powerplant is built of reinforced, cast-in-place concrete between the logway of the dam and the headworks for the New York Canal. Inside are three original Francis-type vertical-shaft turbine generator units, representing the transition to a modern powerplant design. The turbines house bearings made from *Lignum vitae*, a tropical hardwood, and they were lubricated with water. Still in place are the original air-cooled transformers that converted alternating current from the generators to voltage for transmission to Arrowrock Dam. The control panels/switch stations are original, as is the 10-ton overhead crane. The lighting fixtures are from the earliest construction of the plant. Many other powerplant fixtures and items of equipment are in original or nearly original condition.

Historic sites of non-Indian origin have been recorded in the general area of Diversion Dam and Powerplant. These include remnants of the Oregon Trail; placer mining sites; ditches, utensils, and a wooden flume; sheepherder camps; the archaeological remnants of the Foote House; and historic foundations and homestead remains.

Sacred Sites and Traditional Cultural Properties

The Shoshone-Bannock and Shoshone-Paiute Tribes have indicated that there are places along the Snake River that still retain sufficient integrity to enable tribal members to conduct traditional ceremonial functions. These places continue to be of traditional cultural importance to both of the tribes, although the locations and nature of these sacred places have not been specified. If these sites do exist, it is not known if they are currently being utilized by tribal members for ceremonial purposes. Similarly, there is no information available to determine if traditional cultural properties are present in the area of project effect.

3.4.2 Environmental Consequences

No Action

Implementation of the No Action alternative would most likely have no effect upon the Boise Diversion Dam Powerplant, if it remained in ready-reserve status. However, present sources of funding to continue maintenance of the powerplant could be in jeopardy if plans to rehabilitate it were abandoned. Alternative sources of funding to maintain the plant in its present condition may need to be secured. The disassembled unit would be reassembled to as close to its original condition as possible in accordance with the MOA with the SHPO and the Council.

Proposed Action - Rehabilitate Existing Powerplant

The actions proposed for the Diversion Dam Powerplant would adversely affect the historic integrity of that structure, by affecting elements that contribute to the eligibility of the property to the National Register. The principal adverse effect would be alterations in original hydroelectric power-generating equipment that dates to the earliest use of the powerplant. These alterations are necessary to return the plant to service in compliance with modern standards and safety

requirements. The presence of original operating equipment contributes to the feeling of early 20th century working environment and technology; the fact that such equipment still exists almost 100 years after it was placed in the facility, is a rare occurrence in a culture which routinely changes and improves upon existing technology. Other adverse effects would occur from physical structural alterations to the plant itself (for example, removing the bays and concrete wing walls in the switch bay gallery), and from introducing new elements to the building (such as the new transformer or governor). Although each of the changes is relatively small, they are cumulative and thus represent an impact upon the overall historic character of the powerplant facility.

Upriver from Boise Diversion Dam, an approximately two-foot raise in water elevation would occur if hydroelectric power capability is restored to the powerplant. That amount is well within historic limits and would not adversely affect cultural resources or sacred sites.

Mitigation

Reclamation would carry out the following mitigative actions:

1. Take into account the historic character of the powerplant when implementing proposed changes. Only changes necessary for powerplant rehabilitation will be undertaken. Structural and equipment changes will be largely confined to areas away from public view. Materials, finishes, and construction techniques that characterize the original powerplant and its equipment will be utilized as much as possible. Equipment rendered non-operational will be retained in, or in close proximity to, its original location for the sake of comparison. Many of the proposed changes are reversible, enabling the original equipment to be restored to its previous location at some future date.
2. Complete a Level II Historic American Engineering Record (HAER) documentation of Diversion Dam and Powerplant. All documentation will be collected, processed, and packaged in accordance with National Park Service and Library of Congress standards and guidelines for HAER documentation.
3. Complete public educational and interpretive materials using information derived from the HAER report. The HAER report would also provide supplemental information for an interpretive display currently being developed for the powerplant. Finally, photographic documentation of the dismantling of one of the powerplant's generators in June 2001 will provide additional material for the interpretive display.
4. Curate any museum property removed from the powerplant in a facility which provides for long-term protection of the materials.

3.5 Hydropower Generation

3.5.1 Affected Environment

Boise River Diversion Dam Powerplant was constructed in 1912 originally to supply power to Arrowrock Dam during its construction and thereafter to serve pumping loads at Reclamation irrigation projects and BPA's customers in southern Idaho. Diversion Dam Powerplant was operated from 1912 until 1982 when it was placed in ready-reserve status due to high operating costs and need for major rehabilitation work.

In 1988, four of the five irrigation districts of the Boise Project Board of Control (Board of Control), under a Federal Energy Regulatory Commission license, completed the construction of a three-unit powerplant at Lucky Peak Dam approximately two miles upstream from Diversion Dam. The Lucky Peak Powerplant provides a total capacity of 101,250 kW, and power generated is sold to the Seattle City Light.

During its 70 years of operation, the average elevation of the forebay pool behind Diversion Dam was approximately 2818.5 feet during the irrigation season which provided adequate head for generation for most flow conditions. The pool elevation is controlled by adding or removing flashboards to the spillway crest. When Lucky Peak Power Plant began operating in 1988, the Board of Control, which also operates Diversion Dam for Reclamation, reduced the numbers of flashboards that control the level of the Diversion Dam pool. This was done to lower the tailrace elevation below Lucky Peak, which is affected by the pool behind Diversion Dam, in order to maximize head and generation there. This did not affect generation at Diversion Dam since it had been placed in ready-reserve since 1982. From 1993 to the present, Diversion Dam has been operated at a lower pool elevation of about 2816.5 with typical irrigation releases from Lucky Peak, approximately 2 feet lower than pre-1982 levels. At this elevation, the Lucky Peak tailrace is at 2816.8.

3.5.2 Environmental Consequences

No Action

Under this alternative the Diversion Dam Powerplant would not be rehabilitated and no power would be produced at the site. Operation of the dam and elevation of the forebay pool would likely be similar to what has occurred since the powerplant was placed in ready-reserve.

Proposed Action - Rehabilitate Existing Powerplant

Under the proposed action, Reclamation would operate the Diversion Dam during irrigation, M&I, and flood control releases and possibly during minimum releases in winter, depending on power market conditions and winter flows. Historical records show that a minimum flow of approximately 110 cfs is required to run each generator with no load and approximately 400 cfs at full load. Historical winter flows during normal water years has varied between 150 and 240 cfs.

Therefore, operation of the powerplant at these flows during the winter is possible. Special measures would need to be taken to control icing on the dam and canal headworks. Reclamation will evaluate a number of factors before deciding the mode of winter operation, including the cost of operation versus the output gained.

The Standing Operating Procedures for the Boise River Diversion Dam shows that the powerplant has an operating elevation of 2818.9 feet, and records show that the plant was operated from 1912 until shutdown in 1982 at a reservoir elevation of approximately 2818.5 feet. Dependent on the operational characteristics of the refurbished equipment, an increase in elevation above 2816.5 feet elevation under No Action may be required to obtain full power output. During powerplant operation, the Diversion Dam forebay pool may be required to be held as high as elevation 2818.9. At this elevation Reclamation estimates 2,250 kilowatts would be generated at maximum outflow of 1200cfs for an annual generation estimate exceeding 11,400,000 kW-hours which will assist in meeting power needs of Reclamation irrigation pumpers in the Boise Project and BPA customers in southern Idaho.

In addition to the irrigation season, this forebay elevation would be maintained during flood control releases and possibly during winter low flow periods if power generation is economically justified. New York Canal Diversions at the higher forebay elevation would not be affected.

The higher forebay pool at Diversion Dam would have a corresponding effect of raising the tailrace at Lucky Peak Dam an average of 2 feet over the average summer operational elevation since 1993 according to information provided by Lucky Peak Power Plant Project (LPPPP 2001). LPPPP calculates that the two feet of head difference in Lucky Peak would result in a reduction in generation at Lucky Peak of 600 kW, while only increasing Diversion Dam's production by 158 kW. This may reduce power revenues to the Board of Control and electrical power to the Seattle City Light.

Reclamation recognizes that a loss of net head caused by the resumption of a higher forebay elevation at Diversion Dam could reduce generation at Lucky Peak, however the estimates of power loss and gain presented by LPPPP use data gathered at lower elevations and extrapolated to the range in question and theoretical estimates for the Diversion Dam Powerplant. Due to physical differences and anomalies which result in variations from theoretical estimates, actual gains and losses can only be determined by real-time operation at the various flows and forebay

elevations. Mitigation, based on real-time measurements is proposed that would offset some of the losses to Lucky Peak generation

Mitigation

Reclamation will seek to minimize the impact of the Proposed Action on LPPPP while optimizing the power production Diversion Dam Powerplant as part of the Federal power system in southern Idaho. However, Reclamation proposes to operate the rehabilitated powerplant at its full 2,250 kW capacity, in accordance with Standing Operating Procedures. Reclamation will initiate

research into the following areas to meet this goal:

1. After the plant is operational, actual performance data would be collected for the rebuilt generators at various forebay elevations and flows to determine generation capability and efficiency at the various levels. Reclamation would coordinate this effort with the LPPPP, so that LPPPP may also gather actual performance data on its generators at the same forebay elevations and flows.
2. Reclamation would operate the rehabilitated powerplant at its full 2,250 kilowatt capacity while attempting to keep the reservoir elevations at the average monthly elevations recorded since Lucky Peak Powerplant has been in operation. This may be possible if additional flows are available to compensate for the reduced head and would be dependent on the actual performance data obtained.
3. Reclamation would work with the LPPP to review the data collected and to cooperatively develop methods of operation to minimize the impacts to both plants.

3.6 Conformance With Local Zoning and Noise

3.6.1 Affected Environment

During scoping, Ada County Development Services raised issues related to compliance with County zoning requirements and the potential for noise produced by the powerplant. Diversion Dam Powerplant is in a county "Rural Preservation" district which encourages protection of agricultural lands and important environmental features. Diversion Dam is located on Reclamation withdrawn and acquired land. The Reclamation lands include the entire area below the river canyon rim upstream approximately 1 mile and downstream approximately 1/4 mile. There is no private land within 1000 feet of Diversion Dam. Highway 21 and the Boise River Greenbelt pathway lie along the right abutment of Diversion Dam. The powerplant has been in place since 1912 and was operated for 70 years.

3.6.2 Environmental Consequences

No Action

Under No Action there would be no physical or operational change from what has occurred at the site since 1982 when the powerplant was placed in ready-reserve. No effects to zoning or the rural preservation aspects of the area would occur.

Proposed Action - Rehabilitate Existing Powerplant

Under the Proposed Action, the outward appearance of Diversion Dam would change very little. Only the new transformers and trashracks would be visible from outside the powerhouse. The values protected under the "Rural Preservation" designation for the area would not be adversely

affected. Noise levels outside the powerplant during generation would be low. Noise would be imperceptible from the nearest public access along the Greenbelt when water is flowing over the spillway during the spring and summer. During fall and winter when all flows may be running through the plant powerplant, a faint “hum” noise may be noticed from the Greenbelt, but would be lower than noise produced by traffic on adjacent Highway 21. Noise from the powerplant would be undetectable from the nearest residences above the canyon rim.

3.7 Indian Trust Assets

3.7.1 Affected Environment

ITA’s are legal interests in property held in trust by the United States for Indian tribes or individuals. The Secretary of the Interior, acting as the trustee, holds many assets in trust for Indian tribes or Indian individuals. Examples of things that may be trust assets are lands, minerals, hunting and fishing rights and water rights. While most ITA’s are on-reservation, they may also be found off-reservation. The United States has an Indian trust responsibility to protect and maintain rights reserved by or granted to Indian tribes or Indian individuals by treaties, statutes, and executive orders. These are sometimes further interpreted through court decisions and regulations.

The Shoshone-Bannock Tribes, a federally recognized Tribe, located at the Fort Hall Indian Reservation in southeastern Idaho have trust assets both on- and off-reservation. The Fort Bridger Treaty was signed and agreed to by the Bannock and Shoshone headman on July 3, 1868. The treaty states in Article 4, that members of the Shoshone-Bannock Tribe “... shall have the right to hunt on the unoccupied lands of the United States” This has been interpreted to mean unoccupied federal lands.

The Tribes believe their right extends to the right to fish. The Fort Bridger Treaty for the Shoshone-Bannock has been interpreted in the case of *State of Idaho v. Tinno*, an off-reservation fishing case in Idaho. The Idaho Supreme Court determine that the Shoshone word for “hunt” also included to “fish.” Under *Tinno*, the Court affirmed the Tribal Members’ right to take fish off-reservation pursuant to the Fort Bridger Treaty.

The Nez Perce Tribes are a federally recognized Tribe located at the Nez Perce Reservation in northern Idaho. The United States and the Tribes entered into three treaties (Treaty of 1855, Treaty of 1863, and Treaty of 1868) and one agreement (Agreement of 1893). The rights of the Nez Perce Tribes include the right to hunt, gather and graze livestock on open and unclaimed lands, and the right to fish in all usual and accustomed places (Nez Perce Tribes, 1995).

Other federally recognized Tribes, the Shoshone-Paiute Tribes of the Duck Valley Reservation located on the Idaho/Nevada border, and the Burns Paiute near Burns, Oregon do not have off-reservation rights outside their Executive Order Reservations.

3.7.2 Environmental Consequences

No Action

Under Alternative A, there would be no effects to the right to fish, hunt or gather or to resources associated with these activities.

Proposed Action - Rehabilitate Existing Powerplant

Although there would be no effects to the right to fish, hunt or gather compared to current conditions as a result of would affect their ceded lands as well as their usual and accustomed fishing sites. There would likely be no noticeable adverse impacts to fishing resulting from the operation of the powerplant as discussed in Chapter 3.2.

3.8 Environmental Justice

Executive Order 12898 requires federal agencies to make environmental and human health conditions in minority and low-income populations a priority in their policies, programs and activities. Reclamation has not identified any minority or low-income populations within the area affected by the project, and no impacts to these communities would occur from either of the alternatives

4.0 Cumulative Effects

The Council on Environmental Quality regulations for implementing the National Environmental Policy Act define cumulative effects as, "...the impact on the environment which results from the incremental impact of the action when added to other past, present or reasonably foreseeable future actions regardless of what agency or person undertakes such action. The proposed action would have adverse effects to the historic integrity of the powerplant that are reduced through mitigation. The ongoing Arrowrock Dam outlet works rehabilitation project also has minor adverse effects which are also mitigated through a HAER process. Taken together, with proposed mitigative actions, these effects result in only minor impacts to the historic value of the Boise Project, overall.

There are no known ongoing, past, or foreseeable actions adversely impacting fish or fish habitat in this reach of the river that would be additive to the effects of the powerplant project.

5.0 Consultation and Coordination

In July of 2001 Reclamation mailed a scoping document to over 120 agencies, Indian tribes, organizations, and individuals soliciting their concerns over the proposed powerplant rehabilitation. Reclamation has consulted with the Idaho SHPO and the Council in the dismantling and inspection of one generator unit and the project as a whole, including site visits and development of MOA's. Informal discussions with IDFG regarding fish impacts have also occurred. This Draft EA will be issued for public review and comment for 30 days. The mailing list for the Draft EA is included as Appendix A.

The Draft EA will be provided to USFWS and NMFS as Reclamation's biological assessment of impacts to ESA listed species required under Section 7 of ESA. Compliance with Section 404 of the Clean Water Act will be achieved through consultation with the Corps.

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U.S. Fish and Wildlife Service. 1996. Draft Planning Aid Letter, Water Contract Purchase for Salmon Flow Augmentation, Nampa - Meridian Irrigation District. U.S. Fish and Wildlife Service, Boise, ID.

APPENDIX A

MAILING LIST FOR THE DRAFT ENVIRONMENTAL ASSESSMENT

Local Govts./Agencies

Ms. Donna M. Griffin
Ada County Parks & Waterways
4049 S. Eckert Road
Boise ID 83706

Board of Ada County Commissioners
650 W. Main
Boise ID 83702

Mr. Robbin Finch
City of Boise, Envir. Div.-Wtr Quality
PO Box 500
Boise ID 83701-0500

Mr. Doug Hardman
Ada County Emergency Disaster Services
7200 Barrister
Boise ID 83704

Ms. Mary Barlow
Ada County Parks & Waterways
4049 S. Eckert Road
Boise ID 83706

Ada County Development Services
650 W. Main
Boise ID 83702

Mr. Dorrell Hansen
Ada County Highway District
318 E. 37th Street
Boise ID 83714

Ada County Planning & Zoning
650 W. Main
Boise ID 83702

Mr. Jim Hall
Boise Parks and Recreation
1104 Royal Blvd.
Boise ID 83706

Mr. Brent Cornwall
Ada County Sheriff's Dept.
7200 Barrister Drive
Boise ID 83704

Honorable Brent Coles
Mayor-City of Boise
650 Main
Boise ID 83702

State Govt./Agencies

Mr. Lee Sisco
District 63 Watermaster
6616 Overland Rd
Boise ID 83709

Mr. Jim Yost
Office of the Governor
Statehouse Mail
Boise ID 83720

Idaho Association of Counties
700 West Washington Street
Boise ID 83701

Idaho Department of Agriculture
PO Box 790
Boise ID 83701-0790

Mr. Rick Collignon
Idaho State Parks & Recreation
PO Box 83720
Boise ID 83720

Mr. Chris Hoosick
Lucky Peak State Park
9725 E. Highway 21
Boise ID 83716

EXHIBIT D

**SUPPLEMENTAL DIRECTOR'S REPORT REGARDING
SUBCASE NOS. 1-217, 1-218, 1-2064, 1-2068, 1-4024, 1-4025, and 1-4054**

In Re SRBA
Twin Falls County Civil Case No. 39576

Report to the SRBA District Court

Prepared by the Idaho Department of Water Resources
David R. Tuthill, Jr. Director

April 10, 2008

I. INTRODUCTION

In accordance with Idaho Code § 42-1412(4) and Administrative Order 1, the Director of the Idaho Department of Water Resources ("IDWR" or "Department") submits this Supplemental Director's Report regarding subcase numbers 1-217, 1-218, 1-2064, 1-2068, 1-4024, 1-4025, and 1-4054. This report is submitted in response to Judge Melanson's Order Setting Deadline for I.R.E. 706 Reports / Notice of Scheduling Conference, dated January 25, 2008. The Supplemental Director's Report ("Report") sets forth the basis of IDWR's recommendation for the above-listed water rights and was prepared under the supervision of David R. Tuthill, Jr., Director, IDWR.

The following IDWR employees have knowledge of the information contained in this Report: David R. Tuthill, Jr., Director of IDWR and Lyle Swank, Manager, IDWR Eastern Regional Office.

II. SUMMARY OF THE ISSUE

The issue in these seven subcases is whether the water rights should contain the following subordination remark:

The appropriator shall exercise this right in a manner that recognizes the historic practice that the use of water for power generation is incidental to the rights of others to the use of water for other purposes. The appropriator shall not make a delivery call for hydropower generation except as against junior hydropower rights.

III. BACKGROUND

The water rights at issue here are power rights held by the United States of America at Palisades, American Falls, and Minidoka dams.¹ These dams are located along the Snake River in southeastern Idaho in what is commonly referred to as the Upper Snake River Basin. While each of these water rights were developed separately, the long and intertwined history of the dams provides the basis for the Department's inclusion of the historical practices subordination remark in the recommendations for these water rights. It is because of the intertwined history of these three dams that the Department has prepared a single report to explain why the remark is necessary for future administration of these seven water rights in the Snake River Basin.

IV. PROCEDURAL HISTORY

On December 19, 2006, the Director of the Department filed with this court, the Director's Report for Reporting Area Basin 01 Part 2. The seven water rights at issue here were included in this filing. Each of these water rights contained the following subordination provision:

The appropriator shall exercise this right in a manner that recognizes the historic practice that the use of water for power generation is incidental to the rights of others to the use of water for other purposes. The appropriator shall not make a delivery call for hydropower generation except as against junior hydropower rights.

This remark is commonly referred to as the historical subordination practices remark. Copies of the recommendations are attached to this report as Exhibit A.

¹ Water right claim nos. 1-2068 and 1-4054 are for power generation and irrigation storage use at Palisades Dam. Water right no. 1-2064 is for power generation and irrigation storage use at American Falls Dam. Water rights nos. 1-217, 1-218, 1-4024, and 1-4025 are for power generation use at Minidoka Dam.

On or about April 19, 2007, the United States of America acting through the Department of Interior, Bureau of Reclamation ("BOR"), filed objections to the Director's recommendations for these rights. The BOR objected to the historical practices subordination remark, as well as other elements. Numerous other parties filed objections and responses to the historical practices subordination condition.

On October 22, 2007, this court issued an order consolidating 29 cases involving the historical practices subordination remark based upon motions filed by the BOR and Idaho Power Company ("IPC"). (Order Separating and Consolidating Common Issue; Designating Consolidated Subcase; Notice of Hearing ETC ("Order"), (Oct. 22, 2007), at 1-2, 4.) The court withdrew its order of reference to the special masters as to the issue of the historical practices subordination remark and ordered that the issue proceed before the presiding judge. (Order, at 4-5.) The court ordered that all objections pertaining to other contested elements remain with the respective special masters to proceed on a separate track. (Id. at 5.)

On January 25, 2008, the court issued an order asking IDWR to provide the basis for IDWR's inclusion of the historical practices subordination remark in its recommendations for these seven water rights. In response to this request, IDWR submits this Supplemental Director's Report.

V. AUTHORITY

Under Idaho Code § 42-1411(2), the Director is required to determine the elements of a water right including determination of remarks necessary for the definition, clarification or administration of the water right. Generally, the goal of the Department in the adjudication is to ensure that the significant historical practices of a basin are

reflected either in the elements of water rights or in a general provision for that basin. This ensures that administration in the basin will continue to operate as it has historically operated. Where changes in the long term historical practice of a basin would negatively effect other water rights in the basin, it is necessary for the proper administration of the water rights in that basin for the practice to be reflected in the water rights or a general provision so that administration in the basin can continue to operate as it has historically operated. The historical subordination practices remark is included in the recommendations for these seven water rights because the remark is necessary for the clarification and future administration of the water rights in Basin 01.

VI. ANALYSIS

The first large dam in the Upper Snake River Basin was put in place in 1906 at the outlet of Jackson Lake. This dam provided much needed storage water in the basin to meet the constantly increasing irrigation development needs of the basin's water users. However, the introduction of the dam (and the dams that followed) complicated the delivery of water. In order to deliver the storage water to the downstream water users, it was necessary to utilize the natural channel of the Snake River. This created a struggle between senior surface water users that used natural flow from the Snake River and the junior storage water users that relied upon the water stored behind the dams. The two groups fought over how best to move and segregate stored water through the Snake River system while still ensuring that the senior surface water users from the Snake River received their correct allotment of water. Water District #1, originally designated Water District #36, was created in 1919 to administer the water rights in the Upper Snake River

Basin. The Water District tracked the flow of storage water and ensured the correct delivery of the preexisting natural flow water rights.

Tony Olenichak is the Program Manager for Water District #1 and oversees the day-to-day operations of the water district. (Aff. Tony Olenichak, Ex. B at ¶¶1, 6.) Mr. Olenichak is also a Deputy Water Master for Water District #1. (Id. at ¶ 6.) Mr. Olenichak has worked for Water District #1 for over 17 years and is personally familiar with the administration of water rights in Water District #1. (Id. at ¶¶ 4,7.) Historically, Water District #1 has administered the power elements of the BOR's water right nos. 1-217, 1-218, 1-2064, 1-2068, 1-4024, 1-4025, and 1-4054 as subordinate to irrigation and all other junior water uses except hydropower. (Id. at ¶ 8.) Despite numerous opportunities to make a call against junior water users, Mr. Olenichak is not aware of a single instance when the BOR has made a call for water under these power rights against junior water right holders. (Id. at ¶ 9.) Changing the operation of the water system to allow these power water rights to be able to make calls on junior irrigators would be a change from how the Basin 01 water system has historically operated. (Id. at ¶ 10.) This change would have a significant negative impact on the junior upstream water users. (Id.)

The Department included the subordination remark in the recommendations for these water rights because of the past historical practice of treating BOR's power water rights as subordinate to junior upstream non-hydropower rights. This remark makes it clear that the system is operated with a preference for irrigation and other non-hydropower water rights. The Department also included the historical subordination remark in the recommendations for these water rights because of the significant negative

impact it would have on irrigation in Idaho if this practice were to change. It is the determination of the Director that the remark is necessary for the clarification and administration of these seven water rights.

In its objections to six of these water rights, the BOR suggests that it has not been the historical practice in Water District #1 to treat these power rights as subordinate to other water rights in Basin 01. The BOR states:

The remark under the priority date seeks to subordinate this water right to all past, present, and future non-hydropower water rights on the basis of historical practice. Because this water right has never been historically used or administered under such a limitation, the remark is without factual or legal basis

See Standard Form 1 Objections, filed by BOR in subcase Nos. 1-217, 1-218, 1-2068, 1-4024, 1-4025, and 1-4054.²

The BOR's statement is simply incorrect. As the affidavit of Mr. Olenichak explains, it has been the long-term practice in Water District #1 to treat these seven water rights as subordinate to junior non-hydropower water uses. However, the Department does not rely solely upon the affidavit of Mr. Olenichak for support. Beyond Mr. Olenichak's statements, numerous historical documents that have been identified after the Department's recommendation confirm the Department's understanding. These documents show that it has long been BOR's practice to treat these power water rights as subordinate to junior non-hydropower water rights.

² BOR's objection to the historical practices language in subcase no. 1-2064 was different from the other six rights. BOR suggests that reference in the Director's recommendation to contracts between the BOR and Idaho Power under the purpose of use element makes the historical subordination remark unnecessary. Even if the BOR has contractually agreed to subordinate its water right through a contract, the Department believes that this remark is still necessary to protect junior non-hydropower water uses.

As discussed above, Water District #1 was created out of a struggle between storage water users and natural flow water users. However, this was not the only issue confronting the water users in the Upper Snake River Basin. With the development of dams in the Upper Snake River Basin, came the realization that development of power water rights in the basin could negatively impact future irrigation development. The United States Reclamation Service (now known as the Bureau of Reclamation) recognized this issue early in the development of the Upper Snake River Basin. It clearly voiced concerns about power development interfering with irrigation and the need to treat the hydropower water rights as subordinate. In a memorandum dated May 28, 1912, Morris Bean, Supervising Engineer of the United States Reclamation Service, discussed this concern. In his memorandum, Mr. Bean discusses a request to the Reclamation Service to grant a permit for power purposes. (Memorandum from Morris Bean to Cobb ("Bean Memorandum") (May 28, 1912), Ex. C at 1.) The questioner sought a permit to generate power from storage water flowing down the Snake River from the storage reservoirs built by the Reclamation Service at Jackson Lake and elsewhere on the Snake River above American Falls. (Id.)

The memorandum provides:

The Service would, of course, be very glad to make a contract for the use of this power water, but could not bind itself very closely as to the quantities to be made available because the flow of the river must be controlled principally for irrigation purposes and any power contract must be subordinate to the needs of water for irrigation.

Bean Memorandum, Ex. C at 2.

This 1912 statement is an early example of BOR's policy of recognizing the preference for irrigation over power use and subordinating power water rights to protect

irrigation uses in the Upper Snake River Basin. This position is clearly echoed in other documents, contracts and statutes that relate to the three dams.

PALISADES DAM

For the Palisades Dam, the policy of protecting irrigators by subordinating power water rights started with the dam's authorizing legislation. Public Law No. 864 authorized the BOR to build the Palisades Dam. A copy of this public law is attached hereto as Exhibit D. It provides, in relevant part:

That the Palisades Dam and Reservoir project, Idaho, heretofore authorized under the provisions of the Federal reclamation laws ... is hereby reauthorized under the Federal reclamation laws for construction and operation and maintenance substantially in accordance with that report as supplemented and modified by the Commissioner's supplemental report and the recommendations incorporated by reference therein, as approved and adopted by the Secretary on July 1, 1949... .

Pub. L. No. 864, 64 Stat. 1083 (1950), Ex. D at 1.

Thus, under this federal law, the BOR is required to operate Palisades Dam consistent with the Commissioner's supplemental report and recommendations as approved and adopted by the Secretary on July 1, 1949. A copy of the supplemental report referenced in the authorization legislation was included in a letter from the Secretary of the Interior to Congress. (Letter from the Secretary of the Interior Transmitting a Supplemental Report on the Allocation and Repayment of the Palisades Dam and Reservoir project in Idaho, Pursuant to Public Law 864, 81st Congress ("Secretary of Interior Letter"), (November 27, 1950) Ex. E.) The supplemental report discusses how power production at Palisades Dam shall be controlled and makes clear that the subordination of hydropower activities is a limitation on BOR's operations of the dam. It states, in no uncertain terms, that:

The production of power at Palisades Dam will be entirely incidental to the operation of the reservoir for irrigation and flood control. The production of firm power is possible only because a certain amount of water must be passed through the reservoir during the winter to fill the prior storage right of American Falls Reservoir. During the spring and summer months, the releases for flood control and for irrigation will be utilized for production of secondary commercial power and irrigation pumping power to the extent of the turbine capacities.

Secretary of Interior Letter, Ex. E at 25 (emphasis added).

The authorization act for Palisades and the supplemental report show that there is a basis for subordination of BOR's power rights at Palisades Dam. Public Law No. 864 requires that the BOR operate the dam consistent with the supplemental report. The supplemental report provides that power will be "entirely incidental to the operation of the reservoir for irrigation and flood control." Thus, BOR must operate the dam with power as subordinated to irrigation and flood control. To do otherwise would be in contravention of federal law.

AMERICAN FALLS DAM

Documents regarding the construction of American Falls Dam discuss the logic behind a preference of irrigation and provide support for the subordination Water Right No. 1-2064 at American Falls Dam. For example, a 1956 document titled American Falls Powerplant Definite Plan Report appears in the Department's files.³ A copy of this report is attached hereto as Exhibit F. The report confirms the Department's understanding as to the subordination of the power rights at American Falls. This report states:

The need for conserving water for irrigation use has required the limiting of the water supply for power generation, particularly the supply for the proposed American Falls powerplant, to those flows that are incidental to the operation of the Snake River reservoir system for existing and

³ While the Department is not certain of the original source of this document, it appears to be a history of the American Falls Powerplant project by the BOR.

proposed irrigation development and for satisfying domestic water rights.”

American Falls Powerplant Definite Plan Report (“Report”), Ex. F, at 13.

The report continues with a discussion of a study of water moving through of American Falls Reservoir. The report discusses the parameters used in the study and states, “The only set power requirement included in the study is that at Milner Dam for downstream Idaho Power Company plants. Power production at Palisades, American Falls, and Minidoka was considered as incidental to the operation for irrigation and domestic water.” (Report, Ex. F at 22 (emphasis added).)

This view was further reflected by other individuals of the time. In 1954, A.C. Inman, Secretary of the Idaho Power Company, forwarded a letter to the Honorable Hamer Budge, a member of the U.S. House of Representatives, regarding American Falls Dam. (Letter from A.C. Inman, Secretary, Idaho Power Company to the Honorable Hamer Budge, House of Representatives (“Inman Letter”), (June 14, 1954) Ex. G.)

Attached to Mr. Inman’s letter is a document Mr. Inman credits to Mr. G.H.R. Taylor, the Director of the National Hells Canyon Association. The document discusses the history of the American Falls Dam. The very first paragraph of the letter states:

The American Falls reservoir, constructed by the U.S. Bureau of Reclamation, was planned, financed, and is operated primarily as an irrigation reservoir. Use of the water for power purposes has always been incidental and secondary.

Inman Letter, Ex. G, at 2.

It is notable that in his letter, Mr. Inman took the time to correct statements that he believed were incorrect but did not disagree with the first paragraph of the letter.

Documents that are more recent support this position as well. In 1972, the BOR issued an emergency order reducing the amount of water that could be stored at American Falls Dam by one-third due to structural problems with the dam. When faced with this significant reduction of storage space, the spaceholders in American Falls Dam decided that a new dam must be built. Instead of waiting for the BOR to build a new dam, the spaceholders approached Idaho Power to help pay for the new dam. To build the new dam, however, the spaceholders and Idaho Power needed federal approval of the project.

Senate Bill 1529 was introduced into the United States Congress seeking authorization for construction of the new dam. At a committee meeting on the bill, John M. Barker (an Idaho State Senator, farmer, and president of American Falls Reservoir District) provided a written statement regarding the project. (Before the Water and Power Resources Subcommittee Interior and Insular Affairs Committee United States House of Representatives Statement of John M. Barker, President American Falls Reservoir District "Baker Testimony", (Oct. 6, 1973) Ex. H.) In his statement, Mr. Barker explained that American Falls Reservoir District represented five irrigation companies: Twin Falls Canal Company, North Side Canal Company, Aberdeen-Springfield Canal Company, Martin Canal Company, and Woodville Canal Company. (Barker Testimony, Ex. H at 1.) From his statement, it is clear that it was Mr. Barker's understanding that American Falls Dam had always been operated with power as a secondary purpose to irrigation. When discussing how the new dam would be operated, he stated, "[t]he reservoir would be operated in the same manner in which it is now operated, observing the preference for irrigation." (Id.)

Mr. Barker also discussed repayment of the bonds that were going to be issued for payment of the dam and whether repayment of the bonds would be entitled to tax exempt status. He stated:

With the passage of S. 1529, it would be the hope of the Spaceholders that the Idaho Power Company would be successful in obtaining a Federal Power Commission license, so that construction could proceed simultaneously on the dam and power house, and that a savings would result by utilizing the same contractor. The Idaho Power Company would then agree to pay 19 million dollars, plus tax exempt interest, over a period of forty years.

...

We are advised that it is not timely to file with the Internal Revenue Service for a tax exempt ruling until such time as the Congressional bill has passed, the State legislation obtained and the contracts are in a form which might be presented to the Internal Revenue Service. We are encouraged at the possibility of obtaining tax exempt interest for our bonds.

Barker Testimony, Ex. H at 2-3 (emphasis added).

American Falls Reservoir District and Idaho Power did eventually seek a ruling of tax exempt status of the bonds before the Internal Revenue Service. However, the request was not approved because of questions about power generation at the new dam. In 1975, a bill to the federal Internal Revenue Code was submitted to the United States Congress to address the questions raised before the Internal Revenue Service. (H.R. Rep. No. 94-531, Tax Exempt Status of Obligations Used to Provide Certain Irrigation Facilities ("House Report"), Ex. I at 2.) The change proposed by H.R. 9968 was directly related to tax exempt status of the bonds for the American Falls Dam. (Id. at 2-3.) This change is relevant to the subordination issue because the congressional reports regarding H. R. 9968 discuss the subordination of water rights at American Falls Dam and made the tax-exempt status of the bonds issued for the project contingent upon the subordination of

power rights except Idaho Power's 45,000 acre foot water right. The House Report states:

The bill, H.R. 9968, deals with the tax-exempt status of obligations the proceeds of which are to be used to reconstruct the American Falls Dam in Idaho. The dam is used for irrigation purposes but the water also has a subordinate use in generating electric energy.

House Report, Ex. I at 1 (emphasis added)

There has been no intention to release water specifically for use by the Idaho Power Company to generate electricity, except for 45,000 acre-feet (2.65 percent of the storage capacity) whose release the power company can schedule for the purpose of generating electric energy. Thus, the use of water for electric energy would be subordinated to the use of the water for irrigation.

...

Your committee's bill adds a new exception to industrial development bond treatment to specifically allow tax-exempt status for the bonds issued to reconstruct the American Falls Dam. This exception is to apply to obligations for a dam which furnishes water for irrigation purposes which has a subordinate use in connection with the generation of electric energy by water if substantially all of the stored water is contractually available for release from the dam for irrigation purposes and if the water released is available on reasonable demand for members of the general public.

House Report, Ex. I at 3-4 (emphasis added).

The report identifies a maximum limit of 10 percent of normal supply available for unsubordinated hydropower rights at the dam to be able to be entitled to the tax exempt status. (House Report, Ex. I at 4.) This limit was set high enough to make sure that the generation of power by Idaho Power, with its estimated 2.65 percent of supply, would qualify for this test. The report concludes that the project is entitled to tax free status on its bonds "[w]hen substantially all of the stored water (under normal weather and climatic conditions) is available for release to be used for irrigation in the American Falls Reservoir District." (Id.) Similar language appears in the Senate Report for H.R.

9967. (S. Rep. No. 94-570, Ex. J.) H.R. 9967 was ultimately passed by the House and Senate and became effective December 23, 1975. (PL 94-164, 89 Stat 970, Ex. K.)

The historical documents cited above show that it was the intent of BOR to subordinate its water right at the American Falls dam. The House and Senate reports for H.R. 9968 confirm the historical practice at American Falls Dam to subordinate all hydropower rights except for Idaho Power's 45,000 acre foot right. This limitation was written into federal law, whereby it specifically allows the project to claim tax-free bond status only if 90 percent or more of the stored water behind the American Falls Dam is protected for irrigation.

MINIDOKA DAM

As discussed on page 9 of this Supplemental Director's Report, the 1956 document titled *American Falls Powerplant Definite Plan Report* indicates that it was the historical practice to treat the power water rights at Minidoka as subordinate. Another BOR document sheds additional light upon this issue. In a memorandum dated March 12, 1940, B. E. Stoutemyer, District Counsel for BOR to the Commissioner of BOR outlined the history of a number of the contracts with Idaho Power. (Memorandum for the Commissioner by B.E. Stoutemyer ("Stoutemyer Memoradum"), (Mar. 12, 1940) Ex. L.) The memorandum states in part:

The Government has three power plants in connection with its reclamation projects in Idaho. All of the power plants were constructed for reclamation purposes, and in so far as there has been any power production for commercial purposes it has been merely incidental to the main purpose of reclaiming the arid lands under the reclamation act.

Stoutemyer Memorandum, Ex L at 1 (emphasis added.)

The Minidoka Dam was one of the three dams that Mr. Stoutemyer goes on to discuss in his memorandum. (Id.)

The Department is aware of other documents that shed additional light on the historical practices as Minidoka Dam. Attached hereto as Exhibit M is a copy of a letter from Chris Ketchum, Assistant Area Manager for the BOR to Lyle Swank, Watermaster for Water District #1. The BOR maintains records each year on the amount of power that could have been generated at the Minidoka power plant during the storage season, but was forgone because of the subordination of the water rights at American Falls and Minidoka Dams. Attached to the BOR letter is a document titled Determination of Net Power Loss Due to Restriction on Use of Minidoka Water Rights. (Letter from Chris Ketchum, Assistant Area Manager, BOR to Lyle Swank, Watermaster, Water District #1 ("Ketchum Letter"), Ex. M. at 3) This document contains a chart showing the 20-year average of the of the power lost because of the subordination of the Minidoka power water rights, suggesting that this subordination practice has been going on at least 20 years. The document reflects that it has been the historic practice of the BOR to subordinate its power water rights at Minidoka Dam.

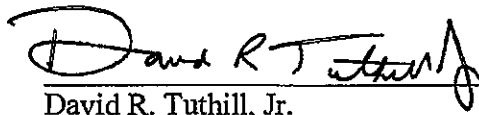
Viewed in total, these documents show that it has been the historical practice of the BOR to operate its power rights at Minidoka as subordinate to non-hydropower water rights. This practice continues to this day.

VII. CONCLUSION

It has always been BOR's practice and intent to operate its power water rights at Palisades, American Falls, and Minidoka dams as subordinate to junior non-hydropower water rights. The historical practice of subordination is supported by the Affidavit of

Tony Olenichak and the historical documents discussed in this report. The intent to subordinate the rights is supported by historical documents discussed in this report. Moreover, given the clear statements in the federal legislation regarding subordination of hydropower rights, the BOR has little room to argue that it is not legally bound to operate the power rights at Palisades and American Falls dams as subordinate. Changing the operation of the Upper Snake River Basin to allow these water rights to make calls on junior water right holders would have a significant negative impact on current water uses as well as on future development in Idaho. The fact that BOR has claimed that these rights have not historically been treated as subordinated underscores the importance of making sure that it is clear in these water rights that they are subordinated to junior non-hydropower water rights, to enable the historic practices of the Upper Snake River Basin to be maintained.

Submitted this 10th day of April, 2008.


David R. Tuthill, Jr.
Director, Idaho Department of Water Resources

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I served a true and correct copy of the following described document on the persons listed below by United States mail with the correct postage affixed thereto on this 11 day of April 2008.

Document Served: SUPPLEMENTAL DIRECTOR'S REPORT
REGARDING SUBCASE NOS. 1-217, 1-218, 1-2064, 1-2068, 1-4024, 1-4025, and 1-4054.

Persons Served:
Original to:

1. Clerk of the District Court
Snake River Basin Adjudication
253 Third Avenue North
P.O. Box 2707
Twin Falls, Idaho 83303-2707

Copies to:

2. Idaho Power Company
Represented by:
Adam T. Devoe
Brownstein Hyatt & Farber PC
410 17th Street, 22nd Fl
Denver, CO 80202

City of Pocatello
Gary DeMoss
Helen DeMoss
Represented by:
Josephine P. Beeman
409 W. Jefferson St.
Boise, ID 83702

King Hill Irrigation District
Represented by:
Daniel V. Steenson
455 S. Third St.
Boise, ID 83701-2773

State of Idaho
Represented by:
Natural Resources Division Chief
State of Idaho
Attorney General's Office
P.O. Box 44449
Boise, ID 83711-4449

Idaho Power Company
Represented by:
James C. Tucker
Idaho Power Co.
P.O. Box 70
Boise, ID 83707

IGWA Inc.
Represented by:
Randall C. Budge
201 E. Center, Ste A2
P.O. Box 1391
Pocatello, ID 83204-1391

Idaho Power Company
Represented by:
James C. Lochhead
Brownstein Hyatt et al
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Denver, CO 80202

A & B Irrigation District
Burley Irrigation District
Falls Irrigation District
Represented by:
Roger D. Ling
615 H St.
P.O. Box 396
Rupert, ID 83350-0396

Idaho Power Company
Represented by:
John K. Simpson
1010 W. Jefferson, Ste 102
P.O. Box 2139
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Milner Irrigation District
North Side Canal Company
Twin Falls Canal Company
Represented by:
Travis L. Thompson
113 Main Ave. W., Ste 303
P.O. Box 485
Twin Falls, ID 83303-0483

USDI Bureau of Reclamation
Represented by
US Department of Justice
Environment & Natl' Resources
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Boise, ID 83724

Minidoka Irrigation District
Represented by:
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Burley, ID 83318

Aldrich Bowler Living Trust
C/O Peter A. Bowler
555 River Rd #3
Bliss, ID 83314

Aldrich Bowler
HC 60 Box 1110
Bliss, ID 83314

United States of America
Regional Director PN Region
Bureau of Reclamation PN-3100
1150 N. Curtis Rd., Ste 100
Boise, ID 83706-1234

James S. Lochhead
Michael A. Gheleta
Adam T. Devoe
410 17th St., Ste 2200
Denver, CO 80202

Remark regarding subordination
Of hydropower rights based on
"historical practices"

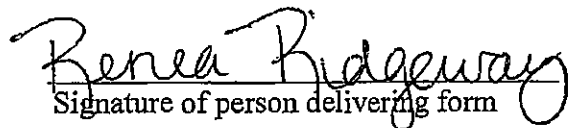

Signature of person delivering form

EXHIBIT E

LAWRENCE G. WASDEN
Attorney General

CLIVE J. STRONG
Chief, Natural Resources Division
Deputy Attorney General

NICHOLAS B. SPENCER, ISB # 2911
Deputy Attorney General
Idaho Department of Water Resources
P.O. Box 83720
Boise, ID 83720-0098
Telephone: (208) 287-4813
Fax: (208) 287-6700
Email: nick.spencer@idwr.idaho.gov

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 No. 92-26
	)	
	)	AFFIDAVIT OF
	)	LEE SISCO
	)	
	)	
	)	

STATE OF IDAHO)
) ss.
County of Ada)

LEE SISCO being first duly sworn upon oath, deposes and states as follows:

1. My name is Lee Sisco. I am now retired. I reside at 6920 Copper Drive,
Boise, Idaho 83704. I make the following statements based upon my personal knowledge
of the facts related therein.

2. For nineteen years, from 1967 into 1986, I was employed in various capacities by the Idaho Department of Water Resources at its State and Western Region offices. For twenty-one years, from 1986 to 2007, I served as Watermaster of Water District 63. As such, I am personally familiar with the administration of water rights in Water District 63, including water right number 63-367, the Bureau of Reclamation's hydropower right at Diversion Dam.

3. During my tenure as watermaster I understood water right number 63-367 to be a "run of the river" right, by which term I mean that the water used pursuant to the right consists only of the water that the Bureau of Reclamation is able to run through the Diversion Dam powerhouse when that water is passing over the dam for delivery downstream pursuant to other water rights. In other words it is my understanding that there is no separate quantity of water allocated solely for use pursuant to water right number 63-367; rather, the right is filled through use only of water sent downstream for use under other rights for irrigation, flood control, fish and wildlife, and stream channel maintenance purposes.

4. During my tenure as watermaster at no time did the Bureau of Reclamation ever make a call for delivery of water right number 63-367.

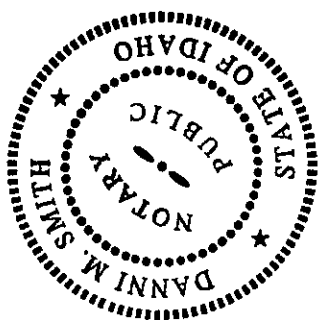
5. I am unaware of any historical records of Water District 63 showing that the Bureau of Reclamation has ever made a call for delivery of water right number 63-367.

FURTHER YOUR AFFIANT SAYETH NAUGHT.

DATED this 12 day of May, 2008.

Lee Sisco
LEE SISCO

SUBSCRIBED AND SWORN TO before me this 12th day of May, 2008.



Danni M. Smith
Notary Public for Idaho
Residing at: BOISE ID
My Commission Expires: 12-12-2012

EXHIBIT F

TRANSFER CASE 223-03-
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

BOISE

Boise, Idaho, May 25, 1926. Asst. to the Com'r.,

OFFICE OF
DISTRICT COUNSEL

From - District Counsel, B. E. Stoutemyer,
To - Commissioner, Washington, D. C.

4-1 Engineering

Subject- Draft of proposed contract between United States
and Idaho Power Company covering use of Govern-
ment power plant at Diversion Dam - Boise Project.

1. We are submitting herewith for advance approval as to form proposed contract between the United States and the Idaho Power Company, covering the use of the Government power plant at the Diversion Dam for standby purposes, by the Idaho Power Company, for one year from date of proposed contract, and also for transmission of the power developed at this plant to the Gem Irrigation District in case the extremely low water this year should result in the development of an insufficient amount of power at the Black Canyon plant.

2. The Government power plant at the Diversion Dam is now idle. The plant is under contract to the Hillcrest and Boise-More Districts and is expected to be ultimately used for the purpose of pumping water for what is known as the proposed Hillcrest Division of the Boise Project, but of course, will not be needed for that purpose until the Hillcrest Division is constructed.

3. On account of the storage of most of the winter flow of Boise River either in the Deer Flat or Arrowrock Reservoirs, very little power can be developed during the winter season, but the power plant is capable of developing a considerable amount of power through the irrigation season, which is available for pumping water for irrigation purposes. No doubt, some permanent arrangement could be made for using the plant for furnishing power for pumping water for irrigation, if the plant were not dedicated to the use of the Hillcrest Division when that Division is constructed, but with the prospect of the plant being required for the Hillcrest Division in two or three years, it is hardly feasible to provide the necessary transmission lines or make the necessary arrangements to the use of the power for irrigation pumping for the short and uncertain time when it will be available.

4. It has been estimated that it would cost about \$3600.00----- to buy the necessary power required at the

MAY 29 26 100029

Diversion Dam and the Arrowrock Dam, so it is estimated that the enclosed contract under which the Company would furnish such power to the Government while the plant at the Diversion Dam is idle, and would also pay \$50.00 per month, is equivalent to a cash consideration of \$4200.00 for the privilege which is given to the Company by the Government of having this plant available for standby purposes during the coming year.

5. The two purposes intended to be covered by this contract are:

(1) To secure some consideration for the power plant during the time that it is idle, which consideration under the terms of this contract we estimate would amount to \$4200.00---, and

(2) To secure from the Power Company an agreement for transmission of power from the plant at the Diversion Dam to the Gem District should it be needed this year in the Gem District.

6. The enclosed contract has been taken up with the Idaho Power Company and is acceptable to the Company.

7. RECOMMENDATION: It is recommended that the enclosed draft of contract be approved as to form, and that we be notified BY WIRE when such approval has been given.

(in dupl.)

enc.
draft of proposed contract in dupl.

CC-Denver with enc.
Portland with enc.
Supt., Boise with enc.

I concur in the foregoing recommendation:

R. Newell
Acting Superintendent.

EXHIBIT G

PLEASE RETURN TO 730 ^{A.R.} Return 440

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS MCKAY, Secretary

BOISE PROJECT, IDAHO
REVISED ALLOCATION AND REPAYMENT REPORT

BUREAU OF RECLAMATION
WILBUR A. DEXHEIMER, Commissioner

REGION 1
H. T. NELSON, Regional Director

Regional Office
Boise, Idaho
September 21, 1953

also see Jun 53 alloc
on And. Rnd +
Payette i.v.

REVISED ALLOCATION AND REPAYMENT REPORT

BOISE PROJECT, IDAHO

INTRODUCTION AND PURPOSE

The Boise Project is located on the Boise and Payette Rivers in southwestern Idaho. It is comprised of two major construction divisions--the Arrowrock Division, which is served by water from the Boise River, and the Payette Division, which is served largely by water from the Payette River. Storage for the Arrowrock Division is supplied by Lake Lowell (formerly Deer Flat), Arrowrock and Anderson Ranch Reservoirs. Other facilities include a diversion dam, power plants at Anderson Ranch and at the diversion dam, and necessary distribution and drainage works. This system provides a full supply for 165,000 acres and a supplemental supply for 103,000 acres.

Storage for the Payette Division is provided by Cascade and Deadwood Reservoirs. The irrigation water is diverted from the Payette River by means of the Black Canyon Diversion Dam. A power plant has been constructed at the Diversion Dam to utilize the head created thereby. These facilities with related canals and drainage works provide a full supply of irrigation water for about 60,000 acres. In addition, they provide supplemental water for 23,000 acres. Some of the storage has been reserved for future developments.

Construction of the initial facilities of the Boise Project was authorized by the Secretary of the Interior on March 27, 1905. Existing canals in the Boise Valley were acquired and enlargement of them was begun in 1906. Lake Lowell with an active storage capacity of 169,000 acre-feet was substantially completed in 1908. The diversion dam on the Boise River was completed the same year, but the Boise Diversion Power Plant was not completed until 1912. Arrowrock Reservoir, with an active capacity of 276,000 acre-feet, was authorized on January 6, 1911, and was completed in 1915. The dam was later raised to increase the active storage capacity to 285,000 acre-feet. Anderson Ranch Dam, authorized in 1940, was completed in 1951. This reservoir has an active storage capacity of 423,000 acre-feet.

The development on the Payette River has in general been undertaken more recently. The Black Canyon Diversion Dam and Power Plant were completed in 1924 and 1925, respectively. Deadwood Dam, with an active capacity of 162,000 acre-feet, was authorized in 1928 and completed in 1930. Cascade Dam and Reservoir, which has an active capacity of 650,000 acre-feet, was authorized in 1941 and has just recently been completed. 1953

The lands irrigated under the Payette Division are known as the First (Notus) and Second Units. These include 6,880 and 53,000 acres, respectively. The First Unit was constructed in the early 1920's--

its water supply being provided entirely by return flows from the Arrowrock Division. The Second Unit includes a section which is served by gravity and another which is served by pumping. Irrigation facilities for that section which is served by pumping have just recently been completed. The entire water supply for the Second Unit is provided by the Payette System.

Although this report covers the entire Boise Project, the primary purpose of it is to treat only selected features and aspects of that project. The whole project is covered, however, in order to indicate the relation of the items selected for special consideration to the project as a whole.

The Anderson Ranch Dam was authorized under Section 9 of the Reclamation Project Act of 1939 by the Secretary's finding of feasibility of June 25, 1940, (H. Doc. No. 916, 76th Cong., 3 Sess.). There was an allocation of costs made in the feasibility report. The Payette Division was authorized under the Federal Reclamation Laws by a series of actions, these including a finding of feasibility for Deadwood Reservoir approved October 19, 1928, a finding of feasibility for the Division as a whole, approved December 19, 1935, and the Act of June 28, 1941 relating to Cascade Dam. There was a tentative allocation of Cascade Reservoir costs approved by the Secretary on October 21, 1948, made in connection with the approval as to form of a proposed interim repayment contract with the Black Canyon Irrigation District, an organization representing the water users of the Payette Division. Costs of the Anderson Ranch Dam and the Payette Division are considerably in excess of the original estimates. Subsequent to their authorization there was authorized and is now being constructed on the Boise River between Arrowrock and Boise Diversion dams, Lucky Peak Dam--a project primarily for flood control purposes. In connection with the latter project, which is being constructed by the Corps of Engineers, a revised estimate of flood damages was made by the Corps and tentative agreement reached at the field level on a flood control operating plan that involves the use on a forecast basis of 418,000 acre-feet of space in Anderson Ranch, the 285,000 acre-feet in Arrowrock and the 280,000 acre-feet in Lucky Peak Reservoirs, these comprising all the Federal reservoirs on the Boise River. In addition, there is now in the course of negotiation with the Black Canyon Irrigation District, an amendatory contract relating to the repayment of irrigation costs of the Payette Division.

These various developments since the original authorization of Anderson Ranch Dam and related allocations of costs and the initial authorization of the Payette Division make it necessary to review and revise the existing allocations. The purposes of this report are:

1. To revise the existing allocations for Anderson Ranch Dam and the Payette Division.
2. To supplement the existing finding of feasibility with respect to Anderson Ranch and Arrowrock Dams so as to

provide an authoritative basis for the operation of those dams in conjunction with Lucky Peak for flood control purposes on a system basis.

3. To establish for the Boise Project a nonreimbursable flood control allocation in recognition of the flood control benefits that result from the operation of the proposed flood control plan.

4. To provide revised authoritative basis for a pooled operation of the Anderson Ranch, Black Canyon, and Boise Diversion power plants for the purposes of establishing system-wide rates and of accounting for power revenues.

5. To establish the basis for the assignment of a portion of the irrigation costs of Anderson Ranch Dam and of the Payette Division for return from power revenues to accrue to the Boise Project power plants operated on a pooled basis.

This report is made pursuant to the authority found in Sections 7 and 9 of the Reclamation Project Act of 1939 and the Flood Control Act of 1946 (Public Law 526, 79th Cong.), as those acts will be supplemented by whatever legislation is enacted in connection with the proposed amendatory contract with the water users of the Payette Division.

PLAN OF OPERATION

The Boise Project was initially considered only in relation to irrigation. With the passage of time, however, the functions of power and flood control came to be recognized as significant partners. Subsequently, additional facilities have been added and operating plans have been altered to achieve effective multiple-purpose development.

Arrowrock Division

The water users signed contracts agreeing to the return of costs for Lake Lowell and Arrowrock Reservoirs with the understanding that this space would be used for irrigation. By the time it became evident that these reservoirs would not provide adequate irrigation water, the concept of multiple-purpose development had begun to take root. It was therefore only natural, when attention was turned to additional storage in the 1930 decade, that consideration should also be given to the possibility of using that storage for other complementary purposes, namely: flood control and power. Anderson Ranch Dam and Reservoir, which was proposed at that time, was ideally located for power production, inasmuch as the winter releases for power could

be recaptured in Arrowrock Reservoir, thus assuring the production of a block of firm power without the loss of water for irrigation. It was also concluded that part of the proposed Anderson space could be used exclusively for flood control, thus taking further advantage of the economies associated with multiple-purpose construction. Anderson Ranch was therefore authorized as a multiple-purpose structure for the benefit of irrigation, flood control and power. However, during the eleven intervening years between authorization and completion, other significant changes occurred. The first of these was the authorization of Lucky Peak Reservoir for construction by the Corps of Engineers. This dam and reservoir, which is being constructed primarily for flood control, is located below Arrowrock Dam on the Boise River. The reservoir will have an active capacity of 280,000 acre-feet; according to plans it will be available for first use in 1954. The second event of significance involved a basic change in the concept of multiple-purpose operation. There was a growing realization that the uses of reservoir space in that area for irrigation and flood control were complementary rather than competitive. This realization opened up the possibility of using space jointly for each purpose, rather than requiring exclusive reservations for each purpose.

Studies of operating plans made jointly by the Corps of Engineers and the Bureau of Reclamation were focused in this direction with the result that it is now proposed to use 418,000 acre-feet of active space in Anderson Ranch Reservoir, the 285,000 acre-feet in Arrowrock and the 280,000 acre-feet in Lucky Peak Reservoir jointly for irrigation and flood control. A copy of the agreement providing for such operation is attached. At the request of the water users, a provision in the agreement permits its cancellation within five years.

The balance of the space in Anderson Ranch Reservoir, including the 30,000 acre-feet of dead storage, 40,000 acre-feet of inactive storage, and 5,000 acre-feet of active storage, comprising 75,000 acre-feet in all, will be used for power production. Actually, the 70,000 acre-feet of inactive and dead storage will be used for power head. Power will be generated from releases made from the 5,000 acre-feet of space reserved for power and incidentally from releases made from the joint use space for other purposes.

Although Lake Lowell is an off-stream storage reservoir serving only irrigation, it is indirectly associated with the joint flood control-irrigation plan. It is normally filled to a safe capacity during the nonirrigation season by water transported through the New York Canal. In the future, the operation of the New York Canal and consequently Lake Lowell, will be integrated with the flood control requirements of the system to the extent capacity is available in the New York Canal and Lake Lowell. Additional diversions will be

made into the canal in order to bypass excess water around the productive area of the Boise Valley subject to flood damages.

The power plant at the Boise Diversion Dam utilizes the head created there to generate a small amount of power during the summer season. It uses flows passed to meet downstream irrigation rights.

Thus, facilities originally undertaken solely for irrigation have been converted to multiple-purpose uses by making necessary additions and by improving plans for using them.

Payette Division

Plans for the use of the Payette Division facilities are not so fully developed as plans for the facilities of the Arrowrock Division. Cascade Reservoir with its active capacity of 650,000 acre-feet is the key structure in the Payette system. It was authorized to provide storage for the Second Unit of the Payette Division and for other lands in the Payette Valley, with the understanding that any water surplus to the needs of the Payette Valley could be used for the development of new lands on the Mountain Home desert south of the Boise Valley. Deadwood Reservoir, with its active capacity of 162,000 acre-feet, was authorized as a power facility to be used to provide storage releases for the generation of power at Black Canyon Power Plant.

Recent negotiations with the water users have resulted in some changes in the plans for the use of the Payette Valley storage space. The water users of the Second Unit have indicated they desire to purchase 125,000 acre-feet of bottom space and 115,000 acre-feet of top space in Cascade Reservoir. This will make 240,000 acre-feet in all and will leave a balance of 410,000 acre-feet. This remaining space is being reserved for the development of the Mountain Home - *Never happened* Project.

The bottom space is defined as that space having the right to the first inflow each water year. It follows that such space is to be preferred to top space which may be dependent on hold-over storage, depending upon the magnitude of the runoff each year. The 125,000 acre-feet of bottom rights, however, can be expected to produce a firm yield.

At the request of irrigation interests in the Payette Valley, it is proposed that Deadwood space be converted to irrigation use. It is expected that contracts effecting this change will be worked out in the near future.

Studies made by the Corps of Engineers have indicated that if Cascade Reservoir were operated with Garden Valley Reservoir, a facility proposed in connection with the potential Mountain Home

is allocated to irrigation.

Old Payette Valley Lands	\$1,394,151
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In summary, the irrigation allocation for the Boise Project is suballocated in the following manner:

Arrowrock Division	\$23,652,459
First Unit, Payette Div.	547,947
Second Unit, Payette Div.	12,667,293
Drainage District No. 4	36,500
Future Developments	4,837,000
Emmett Irrigation District	915,335
Old Payette Valley Lands	<u>1,394,151</u>
Total	\$44,050,685

Suballocation of Power Costs

On the basis of an analysis of irrigation and commercial loads it has been determined that it is appropriate to suballocate 32.78 percent of the power allocation to irrigation power.

Commercial	\$5,368,215
Irrigation	<u>2,617,820</u>
Total	\$7,986,035

REPAYMENT

In line with national policy, it is proposed that the allocation to flood control be nonreimbursable. The other allocations to irrigation and power will be repaid under terms of appropriate law.

Irrigation

A series of contracts are in effect with the water users involved in the Arrowrock Division. These provide for the return of all costs assigned to irrigation including Arrowrock Dam (\$5,251,000), \$5,150,000 of Anderson Ranch Dam costs, and \$8,431,811 associated with other facilities. In addition to the repayment contracts, revenues in the amount of \$254,221 have been received from water rental and miscellaneous receipts, and Congress has previously written off \$82,394. Combined, these amount to \$19,169,426, which leaves a balance of \$4,483,033.

As a result of negotiation now under way with the Black Canyon Irrigation District, it is assumed that the water users of the First Unit will repay the entire cost allocated to that unit (\$547,947)

and those of the Second Unit will repay \$7,346,815 of the total amount of \$12,667,293 suballocated to it. The repayment studies and negotiations leading toward the amendatory contract for the Second Unit have resulted in agreement on a base rate of \$1.60 per acre per year on construction. This base rate applied to the 53,200 acres involved, will result in an annual construction payment of \$85,120. With annual payments of this magnitude, 86.3 years will be required to pay that part of the irrigation allocation assigned to the Second Unit water users for repayment. This will leave a balance of Second Unit costs of \$5,320,478 to be met by other means.

So far as this report is concerned, it is presumed that all other irrigation suballocations will be met. This will require a revision of the contract with the Emmett Irrigation District to cover their share (\$252,000) of the rehabilitation of Black Canyon Dam. It will also require future contracts for the reserved Cascade space, and for Deadwood space, which is now to be sold to owners of old lands in the Payette Valley. Until such time as plans and contracts for the use of Cascade and Deadwood storage are completed, some of the water can be used to advantage for power production at the Black Canyon Power Plant.

Under the above assumptions, water users will repay all of the irrigation allocation except \$9,803,511. The balance will be repaid from net power revenues from the Boise Project Power System.

Power

The power repayment and average rate study indicates that the prospective revenues will result in the full retirement of all reimbursable costs covered in this repayment analysis, including irrigation subsidies in approximately 47 years, commencing with the first full year's operation of Anderson Ranch Power Plant.

The average rate and repayment study is based on the estimated power sales of the three Boise Project power plants and Unit No. 7 of the Minidoka Power Plant, and applies an appropriate share of the revenues to the repayment of expenses and repayment of investment on the Boise Project. The annual costs of operation and maintenance are based on the Bureau's recent experience with respect to operating costs at these plants. Transmission service charges are based on the estimated sales for future years and reflect charges payable to the Idaho Power Company for transmission services furnished under the contract. The annual reserve for replacements was calculated upon a sinking fund basis.

The power repayment analysis indicates that the anticipated power revenues, based upon rates approved by the Secretary June 3, 1953, and including net power revenues of the Boise Project prior to Anderson Ranch operation, will be sufficient to repay costs allocated