IN THE DISTRICT COURT OF THE SIXTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF CARIBOU

IN THE MATTER OF THE GENERAL DETERMINATION)
OF THE RIGHTS TO THE USE OF THE SURFACE)
AND GROUNDWATERS IN THE BANCROFT-LUND AREA)

Civil No. 2919

DIRECTOR'S REPORT

INTRODUCTION

The above-entitled cause was initiated under the provisions of Idaho Code §42-1406, by submission of a petition containing signatures of more than five water users in the Bancroft-Lund Area, requesting that the Director of the Idaho Department of Water Resources obtain authority to commence a general adjudication of ground water rights in the Bancroft-Lund Area.

Pursuant to Idaho Code §42-1407, C. Stephen Allred, Director of the Department of Water Resources, petitioned the court on February 11, 1980, for an order commencing a general determination of the existing rights to the use of surface and ground water with point of diversion and place of use within the Bancroft-Lund Area. Orders authorizing the department to commence an investigation and determination of the various rights to the use of said waters and joining about 375 landowners and possible water users in

the adjudication were signed by District Judge Francis J. Rasmussen on March 28, 1980. Approximately 215 claims to water rights were submitted to the Department.

Based upon the claims received and affidavits affixed thereto; the files and records of the department,

Caribou County, and the court; and an examination of the diversion works and uses of water within the

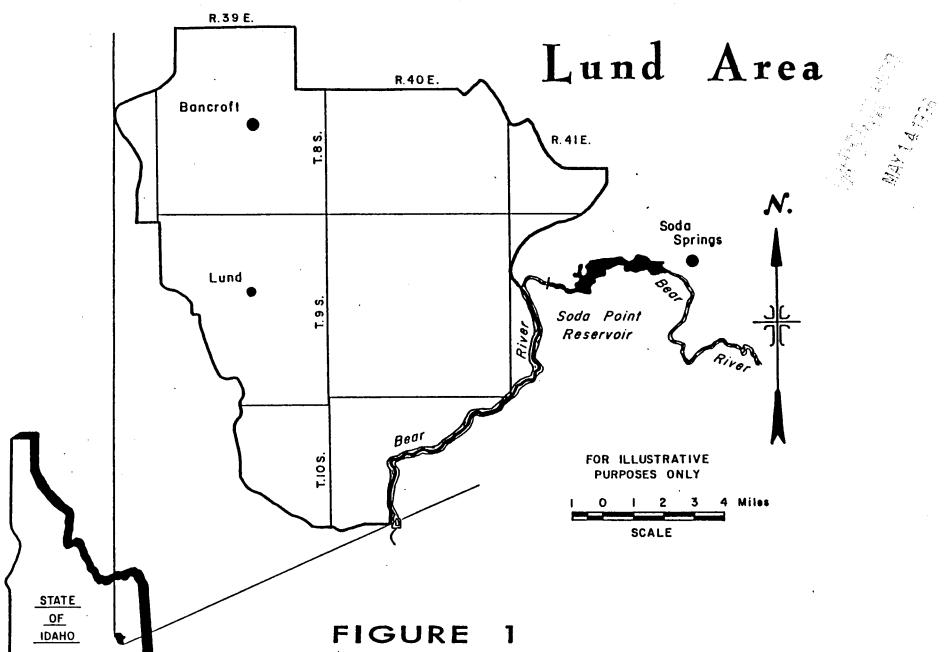
Bancroft-Lund Area, the Director of the Department recommends the following findings of fact, conclusions of law, and listing of water rights.

FINDINGS OF FACT

- 1. The following definitions apply to terms or phrases used in this report:
- a. The phrase "acre-foot" or the acronym AF is the volume of water sufficient to cover one acre of land one foot deep with water; one AF is equal to 43,560 cubic feet or about 325,851 gallons. The acronym AFY is acre feet per calendar year.
- b. The phrase "cubic foot per second" or the acronym CFS is a unit of measure for the rate of flow of water; one CFS is equal to fifty miner's inches in Idaho, or about 449 gallons per minute.
- c. The phrase "consumptive use" is defined as the amount of water that does not remain in the water system after use or is not returned to the water system through return flows or seepage, whether or not treatment for purposes of maintaining water quality is required before the water may be returned to the water system. "Consumptive use" for an irrigation water right shall be based upon the most water consumptive crop that can be grown in the area during the period of the year when water is used for irrigation. "Consumptive use" is included as a rebuttable presumption in a decree only for the purpose of transfers pursuant to section 42-222, Idaho Code. [Reference: Idaho Code §42-1401A(2).]

- d. The term "department" refers to the Idaho Department of Water Resources, formerly known as the state department of reclamation and the department of water administration; the term "director" refers to the Director of the Idaho Department of Water Resources.
- 2. The Bancroft-Lund Area lies entirely within Caribou County, State of Idaho. Boundaries of the Bancroft-Lund Area are defined by the Order commencing this adjudication, and are shown in Figure 1, on page Page viii.
- 3. Pursuant to the Order commencing this adjudication, only water rights with point of diversion and place of use within the Bancroft-Lund Area were included. Surface water rights from the Bear River or Soda Creek were specifically excluded by the Order. The sources for all of the water rights claimed in this action are either ground water or springs.
- 4. The department conducted an investigation of the ground water system in the Bancroft-Lund Area. Based on this investigation, it is found that:
 - a. A portion of the ground water in the Bancroft-Lund Area is tributary to the Portneuf River and is part of the Snake River Basin. A portion of the ground water in the Bancroft-Lund Area is tributary to the Bear River and is part of the Bear River Basin. The location of the divide between the two basins is subject to change based on several factors, including but not limited to amount and location of ground water discharge (some of which is the result of natural causes and some of which is the result of ground water recharge (some of which is natural recharge and some of which is the result of ground and surface water use). In 1983 the divide closely followed Last Chance Canal Company's North Extension Canal, indicating that use of the canal may itself impact the location of the divide due to ground water recharge from the canal.

Bancroft



- b. United States Geological Survey observation wells in Gem Valley indicate a seasonal variation in ground water levels. This is based on several factors. In early to mid spring, water levels start to rise in response to spring snowmelt. In late spring as the irrigation season starts, water levels begin to decline due to ground water withdrawal for irrigation. By early summer, water levels begin a gradual rise due to recharge from unconsumed water from irrigation. Ground water reaches its highest level at mid to late fall, after which water levels begin a gradual decline. Since the magnitude of each of the factors effecting water levels vary annually, their individual effect on the water table for a given year also varies. The observation wells also indicate a variation in ground water levels based primarily on differences in the amount of natural recharge from precipitation and melting snowpack between "dry" years and "wet" years. For example, highest annual ground water levels showed a small (less than 2 feet per year) but steady decline during the years after 1972, which reversed in 1981, followed by a small (less than 2 feet per year) but steady increase in ground water levels through 1986. Data currently available are not sufficient to demonstrate a long term decline in ground water levels.
- c. There is evidence that there has been some decrease in well discharge in some portions of the Bancroft-Lund Area within each annual ground water cycle. There is evidence that this decrease has been caused at least in part by the rate of withdrawal of water from those wells, the construction and design characteristics of those wells, and the aquifer material in which the wells are completed. While the data currently available are not sufficient to confirm interference among wells, the large draw downs that have been observed in some wells indicate that some interference may be occurring.
- d. The ground water gradients indicate that a decrease in the level of ground water tributary to the Bear River would affect the flow of the Bear River and springs in the Bear River Basin. However, current data are insufficient to quantify the affect of present withdrawals of ground water tributary to the Bear River on the Bear River, its surface tributaries, and springs in the Bear River Basin.
- 5. The maximum rate of diversion reasonably required for irrigation of land in the Bancroft-Lund Area is 0.02 CFS per acre. [Reference: Idaho Code §42-202.] The maximum amount of diversion reasonably required for irrigation of land in the Bancroft-Lund Area is 3 AF per acre per year.
- 6. The maximum annual volume of consumptive use for irrigation in the Bancroft-Lund Area is 2.5 AF per acre. This figure is based on the amount of water necessary for irrigated pasture, which is the most

water consumptive crop that can be grown in the area. [Reference: R. G. Allen and C. E. Brockway, Estimating Consumptive Irrigation Requirements for Crops in Idaho, Research Technical Completion Report, Idaho Water and Energy Resources Research Institute, University of Idaho (August 1983).]

- 7. The period of use when water is beneficially used for irrigation is when the chance of temperatures of 24° F. or lower is 75% or less. The period of use in the Bancroft-Lund Area is April 15 to October 15 of each year, for a total of 184 days. In addition, there appear to be periods before April 15 and after October 15 in some years during which water diverted for irrigation purposes could be applied to a beneficial use. [Reference: D. O. Everson, M. Faubion, D. E. Amos, Spring and Fall Freezing Temperatures in Idaho, University of Idaho Agricultural Experiment Station, Bulletin 494 (January 1978).]
- 8. The amount of water reasonably required for stockwatering use is 12 gallons per day per head of range cattle and horses; 35 gallons per day per head for dairy cattle; 4 gallons per day per head of hogs; and 2 gallons per day per head for sheep. [Reference: U.S. Environmental Protection Agency, Manual for Individual Water Supply Systems, 1974.] The rate of diversion for stockwater is calculated using a formula that assumes delivery of the full amount per day in a two hour period.
- 9. The maximum rate of diversion reasonably required for domestic use in a single-family home is 0.04 cfs. The maximum volume of diversion reasonably required for domestic use in a single-family home is 0.6 AFY for household use, and 0.6 AFY for outdoor use, including irrigation of up to one-half acre of land,

for a total of 1.2 AFY. The average volume of diversion reasonably required for domestic use in a single-family home (household and outdoor use) is 1100 gallons per day.

- 10. Stockwatering and domestic uses are consumptive but the consumptive use is so small that it is deemed <u>de minimus</u>. Stockwatering and domestic uses are therefore treated as non-consumptive, and no consumptive use amount is stated in the Listing of Water Rights for such uses.
 - 11. The period of use for stockwatering and domestic use is generally year-round.
- 12. Proper regulation of the diversion and use of water within the Bancroft-Lund Area requires accurate knowledge of the ground water levels, and rate and volume of diversions.
- 13. The department investigated all diversions and uses of ground and surface water in the Bancroft-Lund Area existing as of June 16, 1980, when claims-taking was complete. Except for entries in the Listing of Water Rights with a basis of "application" or "permit", water has been found to have been beneficially used as described in the Listing of Water Rights. Generally, water has been found to have been beneficially used as described in the Listing of Water Rights as of June 16, 1980. However, the status of some claims has changed pursuant to administrative proceedings completed after June 16, 1980 but before January 1, 1990. Claims to those rights were further investigated, and where found to have been beneficially used are described in the Listing of Water Rights as of the completion of the administrative proceeding. A summary of those entries is found at pages Page xxiii to Page xxv.

14. The United States was joined as a party in this adjudication but filed no claims or negotiated agreements to water rights reserved under federal law. This report therefore contains no Parts II or III, as described in Idaho Code §42-1411 (Supp. 1989).

CONCLUSIONS OF LAW

- 1. This report contains ground and surface water rights existing as of June 16, 1980, for the waters diverted from and used within the Bancroft-Lund Area as defined by the Order commencing this adjudication. Any water right which was included in this adjudication but was not claimed in this adjudication will be deemed, upon entry of the final decree in this action, to no longer exist pursuant to Idaho Code §42-1420.
- 2. Priority of appropriation shall give the better right between those using the water. As between appropriators, the first in time is the first in right. [Reference: Idaho Const., Art XV., §3; Idaho Code §42-106.]
- 3. Beneficial use is the measure and limit of an appropriative water right. [Reference: Idaho Code §42-104 and §42-1402.]
 - 4. An appropriative water right is defined by determination of the following:
 - a. source of water supply,
 - b. date of priority,
 - c. rate and amount of diversion.
 - d. nature of use,
 - e. point of diversion,
 - f. place of use,
 - g. period of use,

h. annual volume of consumptive use.

[Reference: Idaho Code §§ 42-1411(2), 42-1412(8)&(9).]

- 5. Prior to May 20, 1971 with respect to surface water rights, and prior to March 25, 1963 with respect to ground water rights, two methods of perfecting a right to water existed in Idaho. The first method was to follow the then existing statutory procedure. The second method was to divert unappropriated water and apply it to beneficial use. The priority date under the first method related back to the date of filing of an application with the department (or the date of posting the required notice under the old posted notice method). The date of priority under the second method is the date of application of water to beneficial use. [Reference: Nielson v. Parker, 19 Idaho 727, 115 P. 488 (1911).]
- 6. All surface water rights with a priority of May 20, 1971 or later, except for instream stockwatering rights as defined by Idaho Code §42-113, must have been perfected in accordance with the application, permit, and license procedure set forth at Idaho Code §§ 42-202 to 42-219. [Reference: Idaho Code §42-201.] All ground water rights with a priority of March 25, 1963 or later, except for domestic purposes as defined by Idaho Code §42-111, must have been perfected in accordance with the application, permit and license procedure set forth at Idaho Code §42-226 to 42-239. [Reference: Idaho Code §42-229.]
- 7. Ground water rights are governed by the doctrine of prior appropriation, but protection of senior ground water rights is limited to protection of reasonable ground water pumping levels as determined by the

director, and does not include protection of historic ground water pumping levels. [Reference: Idaho Code §42-226.]

- 8. Generally, ground water tributary to surface water is to be administered conjunctively with the surface source. [Reference: Idaho Code §42-237a(g).]
- 9. When stockwatering is not specifically included for an irrigation water right, a portion of the water right may be used for purposes of maintaining a reasonable flow for stockwatering use during the irrigation season.
- 10. Fire-fighting is an alternate use to which any water right may be beneficially applied. Fire-fighting is recognized as a lawful use of water whether or not that use is pursuant to an established water right. "Fire-fighting" means the use of water in times of emergency: to extinguish an existing fire on private or public lands, facilities, or equipment, to prevent an existing fire from spreading to private or public lands, facilities, or equipment within the vicinity of and endangered by an existing fire, and by fire-fighting personnel engaged in fighting an existing fire. Fire-fighting purposes does not include the use of water to prevent a fire from occurring in the future, the use of water for domestic purposes in regularly maintained fire-fighting stations, or the storage of water for fighting future fires.
- 11. Use of irrigation water rights recommended in this report in conjunction with any other irrigation water right that the claimant may own shall not result in a combined rate of diversion in excess of 0.02 CFS

per acre, a combined annual volume of diversion in excess of 3 AF per acre, nor a combined annual volume of consumptive use in excess of 2.5 AF per acre.

- 12. Water rights used for irrigation shall be allowed to be diverted prior to April 15 or after October 15 of each year, provided:
 - a. The waters so diverted are applied to a beneficial use as determined by the director or the director's designee; and,
 - b. All water rights existing at the time of diversion (including water rights with a junior priority) that are within their period of use are satisfied.
 - c. The diversion and use of the waters does not conflict with the public interest as determined by the director.
- 13. At the time and to the extent determined necessary by the director, water users in the Bancroft-Lund Area, including the water users identified herein and their heirs, successors and assigns, shall install and maintain measuring devices at their points of diversion for use in administering water rights.

 [Reference: Idaho Code §42-701.]
- 14. Ground water users in the Bancroft-Lund Area, including the ground water users identified herein and their heirs, successors and assigns, are required to allow personnel designated by the director to measure the depth to water in their wells and rate of discharge from their wells for purposes of administration of ground water rights in the Bancroft-Lund Area.

- 15. If data becomes available to demonstrate to the satisfaction of the director the extent of the effect of withdrawals of ground water tributary to the Bear River on senior surface water rights in the Bear River Basin, junior ground water users will be required to reduce or eliminate diversions in accordance with the priorities of the water rights, show to the satisfaction of the director their particular ground water use does not effect senior surface water users, or may provide substitute water or other appropriate mitigation to senior surface water users at the cost of the junior ground water users. If data becomes available to demonstrate to the satisfaction of the director that withdrawals of ground water in the Bancroft-Lund Area have reduced ground water levels below reasonable pumping levels, junior ground water users will be required to reduce or eliminate diversion in accordance with the priorities of the water rights to the extent necessary to maintain reasonable ground water pumping levels, show to the satisfaction of the director their particular ground water use does not effect ground water levels which have gone below the reasonable pumping level, or may provide substitute water or other appropriate mitigation to senior ground water users at the cost of the junior ground water users.
- 16. The United States holds no reserved water rights, as of June 16, 1980, either expressed or implied, to any rights to the present or future use of surface or ground water within the Bancroft-Lund Area.
- 17. Entries in the Listing of Water Rights with a basis of "application" or "permit" are not recommended to be decreed and remain subject to the requirements for authorization and/or completion of an appropriation pursuant to applicable statutes.

18. Except for entries in the Listing of Water Rights with a basis of "application" or "permit", the surface and ground waters of the Bancroft-Lund Area water system have been found to have been appropriated as described in the Listing of Water Rights. The Listing of Water Rights generally describes the water rights as of June 16, 1980. However, the status of some rights has changed pursuant to administrative proceedings completed after June 16, 1980 but before January 1, 1990, and the Listing of Water Rights describes those rights as they existed upon completion of the administrative proceeding. A summary of those rights is found at pages Page xxiii to Page xxv.

Signed this \mathcal{L}^{TH} day of November, 1991.

R. KEITH HIGGINSON

Director

Idaho Department of Water Resources

A. LYNNE KROGH-HAMPE

Deputy Attorney General

Idaho Department of Water Resources

1301 North Orchard Street

Statehouse Mail

Boise, Idaho 83720-9000

Telephone: (208) 327-7906