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WATER RESOURCES

BEFORE THE DIRECTOR
OF THE IDAHO DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF GROUND WATER DISTRICTS' APPLICATION FOR APPROVAL OF MITIGATION PLAN FOR THE AMERICAN FALLS REACH OF THE SNAKE RIVER

APPLICATION FOR APPROVAL OF MITIGATION PLAN (AFR)

The American Falls-Aberdeen Ground Water District, Bingham Ground Water District, Bonneville-Jefferson Ground Water District, Madison Ground Water District, South West Irrigation District, North Snake Ground Water District, and Magic Valley Ground Water District, collectively the "Applicants," hereby apply to the Director of the Idaho Department of Water Resources ("IDWR") for approval of the attached Mitigation Plan ("Mitigation Plan"). This Mitigation Plan is being submitted pursuant to IDWR's Conjunctive Management Rules, IDAPA 37.03.11.

NAME, ADDRESS AND TELEPHONE NUMBER OF APPLICANTS:

North Snake Ground Water District
152 E. Main St.
Jerome, Idaho 83338
Attn: Mike Faulkner, Chairman
(208) 324-8995 NSGWD Office

Magic Valley Ground Water District
453 West, 900 North
Rupert, ID 83350
Attn: Dean Stevenson and Orlo Maughn
(208) 532-4313

American Falls-Aberdeen Ground Water District
505 N. Oregon Trail
P.O. Box 70
American Falls, ID 83211
Attn: Kevin Michaelson
208-226-5914

Bingham Ground Water District
1725 West Riverton Road
Blackfoot, ID 83221
Attn: Bill Taylor, Chairman
208-522-7770

Bonneville-Jefferson Ground Water District
4535 West 81st North
Idaho Falls, ID 83402
Attn: Bill Taylor, Chairman
208-522-7770

Madison Ground Water District
637 Millhollow Drive
P.O. Box 8
Rexburg, ID 83440
Attn: Richard Smith, President
208-356-9044.

South West Irrigation District
340 South 400 West
Burley, ID 83318
Attn: Grant Wyatt
208-678-2856.

NOTICE OF APPEARANCE:

Jeffrey C. Fereday and Michael C. Creamer of the law firm of Givens Pursley LLP hereby enter their appearance as attorneys of record on behalf of the Applicants in the above-captioned matter. All correspondence, notices or pleadings should be mailed to the address listed below:

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SUMMARY STATEMENT OF PURPOSE

The Applicants are Ground Water Districts organized pursuant to Idaho Code § 42-5201 et seq. and an irrigation district organized pursuant to Title 43, Idaho Code. Applicants are submitting this Mitigation Plan for IDWR consideration and approval to allow diversion of ground water by junior-priority ground water users who are the Applicants' members. The Applicants' members hold water rights to the use of ground water for domestic, municipal, commercial, industrial uses and for irrigation in southern Idaho.

The Mitigation Plan sets out specific goals intended to guide the Plan's objectives and strategies. Objectives and strategies are intended to further the stated goals, to allow monitoring of results and to assist in subsequent Plan evaluation and/or adjustment.

This Mitigation Plan documents the Applicants' consideration and incorporation of mitigation plan criteria contained in Rule 43 of IDWR's Conjunctive Management Rules, IDAPA 37.03.11.043.

By submitting this Mitigation Plan, the Applicants do not concede that material injury to senior surface water rights in the AFR has occurred, is occurring or has been demonstrated.

The Applicants request that the Director provide for expedited public notice of this Mitigation Plan, but also provide a reasonable period for interested persons to file any comments

or pleadings. In the event this matter becomes a contested case, however, the Applicants hereby request an expedited hearing schedule.

Dated this 8th day of February, 2005.

GIVENS PURSLEY LLP

Michael C. Creamer
Attorneys for Ground Water District Applicants

GROUND WATER DISTRICTS' MITIGATION PLAN FOR THE AMERICAN FALLS REACH OF THE SNAKE RIVER

SUBMITTED BY

AMERICAN FALLS - ABERDEEN GROUND WATER DISTRICT
BINGHAM GROUND WATER DISTRICT
BONNEVILLE-JEFFERSON GROUND WATER DISTRICT
MADISON GROUND WATER DISTRICT
SOUTH WEST IRRIGATION DISTRICT
NORTH SNAKE GROUND WATER DISTRICT
MAGIC VALLEY GROUND WATER DISTRICT

FOR AND ON BEHALF OF THEIR MEMBERS

FEBRUARY 8, 2005

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I. *Introduction: Mitigation Plan – Overview.*

This Mitigation Plan ("Plan") is submitted by the American Falls-Aberdeen Ground Water District ("AFAbGWD"), Bingham Ground Water District ("BGWD"), Bonneville-Jefferson Ground Water District ("BJGWD"), Madison Ground Water District ("MGWD"), North Snake Ground Water District ("NSGWD") Magic Valley Ground Water District and the South West Irrigation District (collectively, the "Districts") to the Idaho Department of Water Resources ("Department") for its consideration and approval pursuant to Rule 43 of the Department's Conjunctive Management Rules, IDAPA 37.03.11.043. This Plan provides the legal and hydrologic basis for the continued diversion and beneficial use of ground water rights held by the Districts' members that otherwise might be subject to administrative curtailment based on allegations or determinations that the exercise of such ground water rights is causing material injury to senior surface water rights within the Near-Blackfoot to Minidoka reach of the Snake River (hereinafter "American Falls Reach" or "AFR").

North Snake Ground Water District. 152 East Main Street, Jerome, ID 83338, (208) 324-8995. Attention: Mike Faulkner, Chairman; with copy to Michael C. Creamer, Givens Pursley LLP, P.O. Box 2720, Boise, ID 83701-2720, (208) 388-1200.

The NSGWD was formed in 1996. The NSGWD currently has 336 members operating 842 wells serving domestic, stockwater, commercial, municipal and industrial uses and 98,487 acres of farmland. Appropriation priorities of the NSGWD's members range from 1910 to 1997.

Magic Valley Ground Water District. 453 West 900 North, Rupert, ID 83350 Attention: Dean Stevenson and Orlo Maughn, (208) 532-4313; with copy to Michael C. Creamer, Givens Pursley LLP, P.O. Box 2720, Boise, ID 83701-2720, (208) 388-1200.

The MVGWD was formed in 1996. The MVGWD currently has 178 members operating 505 wells serving domestic, stockwater, commercial, municipal and industrial uses and 121,451 acres of farmland. Appropriation priorities of the MVGWD's members range from 1948 to 1994.

American Falls-Aberdeen Ground Water District. 505 N. Oregon Trail, P.O. Box 70, American Falls, ID 83211 Attention: Kevin Michaelson and/or Tim Deeg, (208) 226-5914; with copy to Michael C. Creamer, Givens Pursley LLP, P.O. Box 2720, Boise, ID 83701-2720, (208) 388-1200.

The AFAbGWD was formed in 1996. The AFAbGWD currently has 276 members operating 719 wells serving domestic, stock water, commercial, municipal and industrial uses and 139,675 acres of farmland. Appropriation priorities of the AFAbGWD's members range from 1920 to 1996. The AFAbGWD has within its boundaries the Aberdeen-Springfield Canal Company, Falls Irrigation District, and the Fort Hall Indian Reservation. The members (187 water right holders) of the AFAbGWD that are shareholders of the Aberdeen-Springfield Canal Company have preserved their mitigation and senior priority of their water rights through a stipulated agreement entered into between the water right holder and the State of Idaho. The

district includes geographic water basins 29, 35, and 41. The AFAbGWD is located in Power, Bingham, and Blaine counties.

Bingham Ground Water District 1725 West Riverton Road, Blackfoot, ID 83221. Attention: Craig Evans, Chairman. 208-684-3614.

The BGWD was formed in 1996. BGWD's members use ground water primarily for irrigation under 1,305 licensed water rights, with a cumulative diversion rate of 2,628 cfs. Approximately 131,400 acres are irrigated within the BGWD.

Bonneville-Jefferson Ground Water District. 4535 West 81st North, Idaho Falls, ID 83402. Attention: Bill Taylor, Chairman. 208-522-7770.

The BJGWD was formed in 2000. BJGWD members divert a cumulative total of approximately 1,250 cfs of ground water primarily for irrigation of approximately 94,000 acres.

Madison Ground Water District. 637 Millhollow Drive, P.O. Box 8, Rexburg, ID 83440. Attention: Richard Smith, President. 208-356-9044.

South West Irrigation District. 340 South 400 West, Burley, ID 83318. Attention: Grant Wyatt. 208-678-2856.

South West Irrigation District was formed in October, 1986. Its members divert a cumulative licensed total of approximately 1,680 cfs from 403 wells for irrigation of 109,556 acres and for domestic and stockwater purposes.

The Districts are encompassed by Water District 130, Water District 120 and prospectively by Water Districts 110 and 140. The boundaries of the Districts, of Water Districts 120 and 130, and the tentative boundaries of Water Districts 110 and 140 are shown on Attachment 1.

A. Plan Summary.

This Plan is submitted by the Districts in defense of existing and potential delivery calls made by more senior surface water right holders whose water rights are supplied by natural flow and/or storage water diverted from the Snake River in the Near-Blackfoot to Minidoka reach (the "American Falls Reach" or "AFR").

Goals of this Plan are:

1. To implement targeted, short-term strategies that will mitigate material injury to senior surface water rights, if any, resulting from ground water withdrawals under junior priority rights of the Districts' members in the year such material injury occurs and in a way that minimizes the waste of such mitigation benefits by spill past Milner Dam.

2. To implement long-term strategies that will complement and support short-term, mitigation and will enhance water storage in the ESPA.

3. To protect the Districts' members from any delivery call or other administrative actions seeking to curtail ground water withdrawals to fill senior surface water rights in the AFR.

In filing this Plan the Districts do not concede that material injury to senior surface water rights has occurred or is occurring as a result of their members' ground water diversions. Information necessary to determine material injury has not been made available to the Districts. The Districts have, however, structured the instant Plan to be able to provide mitigation at a level commensurate with actual material injury to senior water rights if and when such injury might be demonstrated.

The level of mitigation proposed is based on an analysis of historical availability and use of natural flow and storage to AFR surface water users, on modeled hydrologic conditions and effects demonstrated by the Department's revised and re-calibrated Eastern Snake Plain Aquifer model ("new ESPA model"), and on operations analysis of the surface water supply that would be made available through mitigation activities.

Historical water supply and diversion data for AFR surface water users show that these water users do not commonly experience significant reductions in water supply except as a result of periods of extended, severe drought. For example, despite significant changes in various aspects of the ESPA water budget, including decreased incidental recharge from surface water irrigation, development of ground water for irrigation and other uses, and a prolonged, deep drought, there has been no long-term downward trend in reach gains to the AFR between 1928 and the present. Also, current average annual flows of water below the AFR and past Milner Dam have *increased* by approximately 1 million acre-feet since 1960. Furthermore, analysis of the capability of AFR surface water users to divert or to store additional water in their systems (whether made available by increased precipitation, ground water recharge or mitigation), even in below normal water years, indicates that most of such additional water would spill below Milner rather than be available for diversion and use by AFR surface water users. Therefore, this Plan proposes short-term components intended to target the use of mitigation in those intermittent drought periods when actual water shortages may be experienced by AFR surface water users, and long-term, ongoing management components that will enhance ESPA water levels and minimize the extent of future water shortages when they do occur. Short-term actions that will be implemented as and when needed to mitigate material injury include:

1. Providing replacement water to surface water users in the AFR;

2. Dry-year leasing to curtail ground water withdrawals for ground water irrigated acres or to reduce surface water demand on surface water irrigated acres;

3. Curtailment of early and late irrigation season diversions;

4. Percentage reductions of ground water withdrawals for irrigation; and

5. Curtailment of ground water diversions used to irrigate lands decreed as enlargement acres in the Snake River Basin Adjudication;

The Districts intend that short-term mitigation actions involving curtailment of ground water withdrawals will be effected through restriction of diversions for irrigation uses to the extent necessary to obviate the need for restricting non-irrigation ground water uses within the Districts.

Some or all of the above actions will be implemented as short-term mitigation in any year during the effective period of this Plan in which an AFR surface water user demonstrates that material injury is imminent or already occurring despite the benefits of the long-term mitigation components described below. In any one year the maximum amount of short-term mitigation to be provided will not exceed 65,000 af. This upper limit is equal to the increased reach gain that would accrue to the AFR within one year of curtailment of all ground water rights of Ground Water District members junior to October 11, 1900[1] that are not subject to an existing mitigation plan or agreement. This quantity would be less if the priority of the senior surface water right for which a delivery call is recognized is junior to 1900 or if such a delivery call or administration is geographically limited to a portion of the ESPA. The maximum amount of short-term mitigation to be provided by the Districts also may be adjusted downward to the extent that ground water users may opt-out of participation in District mitigation and/or provide their own approved mitigation plan.

Long-term mitigation components include those actions that the Districts intend to undertake both independently and cooperatively with others to positively affect the ESPA water budget as well as activities undertaken wholly by persons or entities other than the Districts. These actions include curtailment of ground water withdrawals for irrigation on up to 100,000 acres via a Conservation Reserve Enhancement Program ("CREP"), conversions of approximately 45,000 acres of ground water irrigated acres to surface water irrigation, support for and participation in a state-managed, water user-funded program of large-scale aquifer recharge, and participation with surface water users in repaying the cost of purchasing high-lift natural flow water rights below Milner for exchange with above-Milner storage (the "High-Lift Exchange"). The High-Lift Exchange will support water delivery to the Sandy Pipeline and to existing and new converted acres, and provide supplemental water supply to surface water users.[2]

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[1] October 11, 1900 is the priority for the most senior of the Twin Falls Canal Company and North Side Canal Company natural flow rights at Milner Dam, which are the most senior rights diverted within the AFR.

[2] The Districts assume that of approximately 20,000 acre-feet of water potentially available for exchange with upper-Snake River storage, the first 40,000 af will be available for use by the Districts to serve the Sandy Pipeline delivering surface water to the head of Billingsley Creek in the TSR, and to serve existing NSGWD conversions of ground water-served acres to surface water irrigation. It also is assumed that up to an additional 90,000 acre-feet will be available for use by the Districts or others to serve proposed additional conversions from ground water to surface water irrigation. The balance, which on average is expected to be approximately 47,000

Each of the Districts will cooperate and participate in long-term ESPA management activities. The level of participation in long-term and short-term activities will vary among the Districts, however. For example, the water rights of members of the Madison Ground Water District and the South West Irrigation District have yet to be adjudicated and these Districts have yet to be incorporated into water districts. Further, only a portion of either of these Districts is within the area of the ESPA currently designated as an area of common ground water supply under the Department's conjunctive management rules, and only a portion of the wells within their respective jurisdictions are incorporated into the new ESPA model.[3] Also, Districts such as the North Snake Ground Water District and the Magic Valley Ground Water District have undertaken and are anticipating undertaking, significant long-term mitigation activities within their boundaries that already benefit the AFR. Those benefits are accounted for by this Plan. Finally, the efficacy of implementing certain long-term or short-term actions within certain of the Districts to benefit the AFR varies significantly. The Districts intend to allocate mitigation activities, and the costs for such activities among themselves with these factors in mind, and consistent with full implementation of mitigation as and when it is required.

This Plan provides a historical background of surface, spring and ground water development within the Eastern Snake Plain Aquifer ("ESPA"). This historical background places the present hydrological and legal situation of affected water users in perspective. It also summarizes the circumstances giving rise to this Plan, the Districts' authority to prepare and implement the Plan, and the premises that form the limits of the Districts' proposed mitigation.

This Plan contains three goals intended to guide the Plan's objectives and strategies. This Plan incorporates an adaptive, participatory management process. This Plan also describes current and proposed physical programs that are intended to benefit reach gains in the AFR. Intended beneficiaries of this Plan include surface water users within the AFR collectively. The Districts' members also are intended beneficiaries to the extent approval and implementation of this Plan will permit continued ground water diversions under junior priority water rights. This Plan does not provide coverage for non-members of the Districts. The Districts have established internal policies and procedures by which non-members who are not currently participating in this Plan may do so.

This Plan is intended to comply with requirements of Idaho law, the requirements for mitigation plans set forth in the Conjunctive Management Rules adopted by the Department (IDAPA 37.03.11 et seq.), and the policies of the Idaho Water Resource Board as adopted in the State Water Plan.

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acre-feet per year, up to an estimated maximum of 98,000 acre-feet per year, is anticipated to be available to surface water users above Milner Dam.

[3] Because they are not within water districts and because of their geographic and hydrologic relationship to the AFR and the statutory limitations on administration of non-water district/non-ground water management area ground water diversions, the MVGWD and SWID do not anticipate that their members are currently subject to conjunctive administration with the AFR. Their participation in this plan represents their interest in participating in aquifer-wide, long-term management and to provide their members protection from delivery call if and when administration in the AFR may be imposed in the future.

This Plan is neither a determination nor an admission about either "material injury" or the level of mitigation that might be required to prevent material injury at any given time.

B. Plan Scope and Duration.

This Plan is proposed as a permanent plan, subject to modification consistent with an adaptive management approach.

The strategies proposed by the Districts are intended to mitigate any injurious effects to senior surface water rights within the AFR attributable to ground water withdrawals by the Districts' members under junior priority water rights in the year in which such injury occurs. This Plan does not propose actions to be undertaken by the Districts to offset or mitigate the effects on the ESPA, the AFR or senior surface water rights resulting from any activities over which the Districts and their members have no control, including but not limited to: pumping by non-members of the Districts; natural hydrologic or climatologic events such as drought; continued surface water conservation efforts (e.g., conversion to sprinklers, ditch lining, reuse) anywhere on the Eastern Snake River Plain; surface water storage development and allocation; Water District 01 water bank rental rules or rental decisions made by surface water users; or releases of storage water to satisfy requirements of the federal Endangered Species Act, to generate hydropower, or for any other purpose.

II. Historical Background.

The ESPA and mid- and upper-Snake River[4] encompass a large and prolific water system. Streamflow records show that, after accounting for diversions for irrigation, the water yield from the Eastern Snake Plain area averages eight million acre-feet ("MAF") annually.[5] On average, approximately 2 MAF of water pass below Milner Dam to the lower Snake River Basin.[6] Reservoir storage capacity above Milner Dam is approximately 5.7 MAF, and the ESPA itself is estimated to hold from 200-300 MAF within the upper five hundred feet. The total volume of water in the aquifer may be as much as one billion acre-feet.[7]

A. Brief History of Surface and Ground Water Development.

1. Natural Flow Diversions.

Development of irrigated agriculture began on the Eastern Snake Plain in the 1860s by means of direct diversions from the Snake River and its tributaries. By 1899, approximately

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[4] The upper Snake River as used in this document means the Snake River above King Hill, Idaho.

[5] As measured at King Hill, Idaho. Comprehensive State Water Plan ESPA (1996) (citing Kjelstrom 1992).

[6] An average of thirteen MAF of Snake River water passes out of Idaho each year.

[7] Comprehensive State Water Plan, ESPA at 28.

211,000 acres of agricultural land on either side of the Snake River above American Falls had been brought under gravity irrigation using Snake River water.[8]

2. Storage Development.

Shortly thereafter, significant additional acreage was brought under surface water irrigation below American Falls with the infusion of new financial and legal support for large-scale irrigation projects. One such project was the construction of Milner Dam, which was completed in 1905. Milner Dam diverts Snake River water to large irrigation projects on both sides of the Snake River.[9] Many of these large irrigation projects, which account for approximately 414,000 irrigated acres in the Twin Falls area, were developed under the federal Carey Act. These projects were largely completed by the early 1930s.

Coincident with these developments, the United States Bureau of Reclamation ("USBOR") began developing storage projects on the Snake River and its tributaries above Milner Dam. By 1975, federal storage projects provided 5.7 MAF of storage above Milner Dam, over 4.5 MAF of which is in Idaho reservoirs. These projects were developed to provide both primary and supplemental irrigation water to existing and newly irrigated lands.

3. Effects of Early Irrigation, Domestic and Stockwater Diversions on ESPA Water Balance.

Because a significant percentage of the irrigation water delivered to these agricultural lands percolates below the crop root zone, early irrigation development on the Eastern Snake Plain changed the water balance for both the Snake River and the ESPA. Large quantities of water that historically had passed down to the lower Snake River as spring runoff were diverted as natural flow or from storage for irrigation on the Plain, and the portion of that water that leaked from the canals and laterals, or seeped below the crop root-zone, became "incidental recharge" to the ESPA. In 1980 this recharge was estimated to be more than 5 MAF[10] annually.

Incidental recharge added an estimated 24 MAF to aquifer storage between 1890 and 1950,[11] and much of it has flowed down gradient through the aquifer to points of discharge in the Thousand Springs Reach ("TSR") below Milner Dam. Discharges within the TSR increased from approximately 4,200 cfs to approximately 5,900 cfs between 1902 and 1930, and peaked at approximately 6,800 cfs in 1953. In contrast, reach gains have remained relatively constant in the AFR since 1928. While it is generally believed that incidental recharge has fed springs

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[8] M.J. Mundorff, Ground Water in the Vicinity of American Falls Reservoir, Idaho, U.S.G.S. Water Supply Paper 1846 (1967).

[9] Milner Dam facilitates water diversions from the Snake River to the North Side Canal, Twin Falls Canal, Milner-Low-Lift Canal and Milner-Gooding Canal.

[10] Lindholm, Summary of the Snake River Plain Regional Aquifer System Analysis In Idaho and Eastern Oregon. U.S. Geological Survey Prof. Paper 1408a (1996).

[11] Sally A. Goodell, Water Use on the Snake River Plain, Idaho and Eastern Oregon. U.S.G.S. Regional Aquifer System Analysis, Professional Paper 1408E at 48 (1988).

discharging to the Snake River above Milner Dam, historical records of reach gains in the AFR do not reflect changes of the kind observed in the TSR.

During this same 1890-1950 period many of the canals delivering irrigation water during the summer months also carried water during the non-irrigation season to satisfy domestic and stockwater needs of farmers and ranchers across the Eastern Snake Plain. Based on Water District 01 records, over 500,000 AF annually of Snake River surface water historically were diverted onto the Plain during the non-irrigation season.[12] A significant portion of these diversions also became incidental recharge to the aquifer and contributed to the increases in spring discharges in the TSR.

4. Ground Water Development.

Immediately after World War II, new agricultural expansion began on the Eastern Snake Plain served by development of additional surface water supplies, advances in ground water pumping technology, and available cheap power. Between 1945 and 1966, irrigated acreage throughout the Eastern Snake Plain increased from approximately 2.5 million acres to approximately 3.2 million acres, 700,000 acres of which were irrigated with ground water.

5. Winter Water Savings.

In 1945, the USBOR entered into contracts by which historical winter water diversions from the Snake River onto the Eastern Snake Plain for domestic and stockwater uses were curtailed to permit construction of Palisades Dam, which was completed in 1957.[13] Operation of this program began in 1961. It was intended to, and did, improve the reliability of filling the Snake River reservoirs, including Palisades and American Falls, through forbearance of winter diversions by canal and ditch companies, who then became spaceholders of the "saved" water. The largest spaceholders under the winter water savings contracts were North Side and Twin Falls Canal Companies, who together hold contracts for 273,430 AF of space in Palisades and American Falls Reservoirs.[14]

6. Improved Irrigation Efficiencies.

The late 1970s also were a pivotal time for the Snake River water system. In June 1976, the Teton Dam collapsed while filling and released 260,000 AF of water onto the cities and farmlands of the upper Snake River Basin. The following year was one of the worst drought years on record. These events prompted extensive improvements in irrigation efficiencies across much of the lands irrigated with surface water in the upper Snake River Basin. These

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[12] Since 1961, the combined average November to March diversions for spaceholders with winter water savings contracts has declined by over 500,000 AF.

[13] U.S. Bureau of Reclamation, Water Supply for Palisades Reservoir Project, Idaho: A General Plan for the Elimination of Winter Diversions, Coordinated Operation of Reservoirs and Development of New Land, Project Planning Report 1-5.17-1 at 10 (Oct. 1946).

[14] 116,600 AF are in Palisades and 156,830 AF are in American Falls. The total storage in Palisades Reservoir attributable to all winter water savings spaceholders is 256,600 AF.

efficiencies have resulted in an estimated average annual reduction of on-farm water deliveries of 800,000 to 1,000,000 AF per year.[15]

7. Reach Gains in the AFR.

The reductions in incidental recharge and development of ground water for irrigation and other uses on the ESPA might suggest that reach gains to the AFR should have declined since 1960. However, there is no statistically significant long-term trend, either up or down, in historical reach gains to the AFR over the 1928-2002 period. The average reach gain since 1960, roughly 2.4 MAF/yr, is not statistically different from that observed between 1928 and 1960. There are fluctuations in this natural flow supply from one year to the next. But Attachment 2 shows that these fluctuations are most strongly correlated to cycles of drought.

8. Historical Water Supply and Use in the AFR.

Surface water development in the AFR generally occurred later than surface water development in upstream reaches. As a result, natural flow water rights of canals diverting below Blackfoot tend to be junior to those of most upstream canals. They cannot place an administrative call for water against most upstream uses. The canals diverting below Blackfoot are thus dependent on reach gains and tributary inflows in the AFR for much of their natural flow supply. As discussed above, this natural flow supply continues to averages about 2.4 MAF/yr.

Storage supplies of AFR water users are derived from spaceholder contracts in Jackson Lake, Palisades and American Falls reservoirs. The current total space held by the seven major diverters in the AFR is approximately 2.5 MAF. The American Falls portion of this space fills regularly since it has the largest contributing basin. Attachment 3 shows the annual fill frequency of American Falls Reservoir. The initial storage allocation of the principal AFR canals in 2004, in what the IDWR estimates to be the fourth year of a 1-in-200-year drought event, was 1.7 MAF, or 68% of full.

Attachment 4 summarizes water supply and use by these principal canals in the AFR from 1980 through 2003, based on data from annual Water District 01 Watermaster reports. Tables 3 and 4 of Attachment 4 summarize water bank activity and end-of-year carryover storage for these canals. Table 3 shows that most of the major canals diverting in the AFR are net contributors to the water bank, a behavior that would seem to indicate an abundant supply. Only the Milner Irrigation District and American Falls Reservoir District No. 2 regularly lease water from the water bank, and much of the water leased by Milner is resold to other users. As expected, there are greater amounts of leasing from the bank in dry years, but the maximum amount leased in any one year of this period by all the major canals combined did not exceed

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[15] Idaho Department of Water Resources, *Upper Snake River Basin Study* (1997). pp. 36, 41. Concurrently, the volume of water spilling past Milner Dam has increased by an average of over 1 MAF per year since the 1960s.

35,000 acre-feet. And a comparison with Table 4 shows that even is such years there are often substantial amounts of storage left unused at the end of the year.

These observations suggest that the canals diverting in the AFR are generally well-supplied, and suffer significant shortages of water only in extreme dry spells.

9. Flows Past Milner Dam.

Ground water development in the ESPA began in earnest in the 1950s, leveling off at present levels in the late 1980s. The effects, on river reach gains, of current levels of ground water development are believed to be nearly fully expressed.[16] If this ground water development had reduced the water supplies available to surface water users in the AFR, it could be expected that flows passing Milner Dam would have declined as ground water development affecting upstream reaches progressed. In fact the opposite is true. As can be seen on Attachment 5, since 1960 flow passing Milner Dam has increased by more than 1 MAF/yr over pre-1960 levels, suggesting that ground water development has had no significant long-term effect on the availability of surface water in the AFR.

Curtailment of ground water use with the aim of increasing river gains in the AFR is likely to further increase the amount of water passing Milner Dam without necessarily increasing the quantity of water available for beneficial use by AFR surface water users.[17] An IDWR study of the steady state benefit to the AFR of curtailing ground water uses junior to January 1, 1961, showed that approximately 90% of the predicted reach gain increase of 888 cfs would spill past Milner Dam unused. (See Attachment 6). In other words, only 10% of the water produced by curtailment of 664,800 acres of ground water irrigation across the ESPA might be storable or diverted to beneficial use by the canals diverting in the AFR. The percentage of predicted reach gain that would spill below Milner, and the frequency of that spill would increase if more senior ground water rights were curtailed.

10. Results of the "Legacy Scenario" using the new ground water model.

As discussed previously, changes in surface water irrigation practices since the 1950s have led to reductions in incidental recharge to the ESPA. The principal changes in surface water irrigation practices have been conversion from gravity to sprinkler application methods and the elimination of winter diversions by many large canal systems as part of the Palisades Winter Water Savings Program.

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[16] Cosgrove, D., B. Contor, A. Wylie, N. Rinehart and G. Johnson. 2004. Snake River Plain Aquifer Model Scenario: Hydrologic Effects of Continued 1980-2002 Water Supply and Use Conditions. Idaho Water Resources Research Institute Technical Report 04-001. Eastern Snake Plain Aquifer Model Enhancement Project Scenario Document Number DDS-001. November.

[17] This fact underscores a serious misconception of a recent economic analysis commissioned by surface and spring water users concerning the potential economic effects of curtailing ground water diversions on the ESPA. That analysis erroneously assumed that each acre-foot of water that would accrue to the AFR due to curtailment of ground water diversions could be diverted to beneficial use by surface water irrigators each year.

Analysis using the new ESPA ground water model[18] indicates that overall gains to the Snake River have been reduced by approximately 2600 cfs by surface water conservation measures and winter water savings, and that gains to the AFR have been reduced by about 1000 cfs. Both of these estimated reductions are similar in magnitude to those predicted to have occurred from ground water development. So, if in fact there have been reductions in surface water availability in the AFR, it is reasonable to believe that a substantial portion of those reductions are the result of changes in irrigation practices by surface water users. It is likely that but for these water management decisions by surface water users that reduced incidental recharge, surface water supplies in the AFR would be adequate in all but the worst drought years.

B. Early Conjunctive Management.

1. The Swan Falls Controversy.

In the late 1970s and early 1980s Idaho Power Company and its ratepayers began focusing on declining spring discharges in the TSR and the resulting lower flows in the Snake River at Idaho Power Company's Swan Falls Dam. Declining spring flows in the TSR and Snake River, the increasing number of large direct diversions from the Snake River below Milner Dam using high-lift pumps, and the Idaho Public Utilities Commission's denial in September 1976 of a certificate of public convenience and necessity for Idaho Power's proposed coal-fired power station, motivated Idaho Power to take steps to assert the priority of its hydropower rights at Swan Falls Dam. Idaho Power brought suit in state district court seeking a declaration that its Swan Falls water rights, with priorities ranging from 1901 to 1919, were not subordinated to upgradient junior water rights.[19] This suit was followed immediately by a blanket protest filed by Idaho Power with the Department against "all past and future water applications filed with the Department which contemplate diversion and consumptive use of waters from the surface and subterranean tributaries of the Snake river. . . between Milner Dam, the Snake River. . . east of Twin Falls and the Hells Canyon Dam. . . ."[20]

The settlement of the Swan Falls litigation signed by the Governor and Idaho Power in October 1984 included several key components. Idaho Power agreed to subordinate its Swan Falls rights to all existing upgradient appropriations and to subordinate a portion of its Swan Falls rights above specified minimum flows to future upstream development. Idaho Power and the State also agreed that the State would institute a general stream adjudication to confirm the status of all existing and claimed water rights, including federal and tribal claims, in the Snake River Basin.

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[18] Contor, B., D. Cosgrove, G. Johnson, N. Rinehart, and A. Wylie. 2004. Snake River Plain Aquifer Model Scenario: Hydrologic Effects of Changes in Surface Water Irrigation "No Surface-water Changes Scenario." Idaho Water Resources Research Institute Technical Report 04-003. Eastern Snake Plain Aquifer Model Enhancement Project Scenario Document Number DDS-003. November.

[19] Amended Complaint, *Idaho Power Co. v. State of Idaho*, No. 62237, in and for the County of Ada (filed Nov. 8, 1977).

[20] *In the Matter of Applications Filed for Water Diversions for Consumptive Use on the Surface and Subterranean Tributaries of the Snake River Between Milner Dam and Hells Canyon* (Dec. 30, 1977).

The settlement established a "trust water area" within which ground water generally was presumed to be tributary to the Snake River below Milner Dam and a non-trust water area where ground water was presumed to be tributary to the Snake River above Milner Dam. The legislature enacted statutes and the Water Resource Board promulgated a State Water Plan to implement the settlement, to acknowledge the public policies furthered by ground water use, and to establish criteria by which staged ground water development within the trust water area could continue.

The settlement, the statutes, and the policies all were premised on the clear understanding that ground water development would reduce aquifer discharges to the Snake River, and consequently, river flows at Swan Falls. In 1976, the Idaho Water Resource Board State Water Plan recognized that "[f]uture management and development of the Snake Plain aquifer may reduce the present flow of springs tributary to the Snake River."[21]

Despite the State's policy to continue ground water development, one factor in the Swan Falls statutes had the potential to limit such development in the trust water area. This was a requirement that any ground water appropriation that would "significantly reduce" the water available to fill Idaho Power's Swan Falls water rights would undergo a public interest evaluation.[22] In 1988, however, the Department analyzed the effect on Swan Falls hydropower generation of developing the full 196,000 acres of additional land in the trust water area for which applications for ground water permits were then pending. The Department estimated that this development of new irrigation using ground water would, after sixty years of pumping, reduce flows at Swan Falls Dam by approximately 243 cfs. The Department concluded:

> Other factors present in a dynamic system as large as the Snake Plain aquifer will have more effect on the discharge of the Snake River than decreases caused by [196,000 acres] of new development . . . Approval of applications for permit or permits which propose the development of 196,000 acres of newly irrigated lands with water from the Snake Plain aquifer will not either individually or cumulatively cause significant reduction in the water supply available to [Idaho Power].[23]

2. Other Controversies.

The Swan Falls agreement, however, essentially included only two signatory "parties"—the State of Idaho and Idaho Power. The agreement did not purport to resolve potential or future disputes between surface water users *above* Milner Dam and ESPA ground water users. In 1989, North Side and Twin Falls Canal Companies and American Falls Reservoir District filed protests

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[21] 1976 State Water Plan—Part Two at 118.

[22] Idaho Code § 42-203C(1).

[23] Idaho Department of Water Resources, *In Re: Evaluating Whether Development of New Irrigated Acreage Will Cause a Significant Reduction in Trust Water Available for Power Production*, Memorandum Decision and Order at 4 (undated).

with the Department objecting to all then-pending applications for permits to appropriate ground water in the non-trust water area of the ESPA (tributary to the Snake River above Milner Dam). Those protests subsequently were withdrawn, but the Department adopted new procedures for processing applications for permits in the non-trust water area.

Under the new process agreed to by the objecting canal companies, the Department would continue to process applications to appropriate water for domestic, stockwater, commercial, industrial, municipal, and non-consumptive uses under the existing water appropriation rules. The Department also would continue to process applications to appropriate water for irrigation under existing water appropriation rules, but the Department began to condition these new permits to retain the Department's jurisdiction to incorporate the irrigation water right into a water district and to require future augmentation or mitigation of resulting depletions that injured senior water rights. The Department also began incorporating a condition in new permits providing that the permit was subject to all prior rights and did not give rise to any defense or claim against the holder of a senior right from ground or surface water sources based on theories of forfeiture, abandonment, adverse possession or estoppel.

The Department's continued processing of permit applications in the non-trust water area was premised in large part on its finding that development of irrigation of the approximately 47,000 acres covered by pending applications would decrease the annual discharge to the Snake River in the Blackfoot to Minidoka reach by only seven tenths of one percent after sixty years of pumping.[24] The Department determined that this level of depletion was not significant given the overall long-term stability of reach gains to the Snake River above Milner Dam, the vastness of the ESPA and the variability of other factors that influence recharge and discharge from the aquifer.[25] The Department also believed that the legal relationship of ground and surface water rights would need to be determined in the Snake River Basin Adjudication ("SRBA") to permit conjunctive management of these rights.[26]

3. Department-Imposed Moratoria on New Ground Water Appropriations.

The Swan Falls Agreement and the Department's decisions regarding continued processing of pending applications for ground water development in trust and non-trust water areas did not result in further large-scale ground water development. In May 1992, following six consecutive years of drought and with little new ground water development in the interim, the

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[24] Computer modeling indicated depletions in aquifer discharges to the Snake River above Milner Dam attributable to ground water pumping would approximate 6000 AF (8 cfs) at the end of fifteen years following development and 16,000 AF (22 cfs) after sixty years.

[25] This long-term stability continues as is borne out by natural flow data for the AFR. See Attachment 2.

[26] February 17, 1989 Letter from Keith Higginson, Director, Idaho Department of Water Resources to Gary Slette re: Processing Procedure – Non-Trust Water Area.

Department imposed a moratorium on processing all pending and future applications to appropriate ground or surface water from the Snake River Basin above Weiser.[27]

Two months later, Twin Falls Canal Company and North Side Canal Company brought suit in state district court seeking a permanent injunction prohibiting the Department from processing pending or new applications for permits to appropriate ground or surface waters in the non-trust water area. This suit was settled when the Department agreed, among other things, to undertake a five-year hydrologic study and to issue a specific moratorium order with respect to the non-trust water area. That settlement with the canal companies was memorialized in an order, issued in January 1993, that imposed a moratorium on processing all pending and new applications for permit in the non-trust water area for so long as a drought emergency existed, and it limited the Department thereafter to authorizing no more than 10,000 AF of new consumptive use in any one year.[28]

In April 1993, the Department amended its May 1992 moratorium order. This amendment extended the moratorium to all of the Eastern Snake Plain and its tributaries, including the Big Lost River and Mud Lake areas, which previously had been subject to their own moratoria orders.[29] The April 1993 order did not affect the non-trust water area moratorium.

4. The *Musser* Case.

At this same time, Alvin Musser and others who held water rights diverted from a spring discharging at the Curren Tunnel in the TSR petitioned the Department to deliver their decreed rights from the Tunnel. This delivery call essentially sought curtailment of unspecified junior ground water rights believed to be diverting from a source interconnected with the Curren Tunnel. The Director responded that he was not authorized to conjunctively administer ground and surface water rights without a formal hydrologic determination that conjunctive management was appropriate or that particular junior water rights were at fault. Mr. Musser sought judicial review and the Idaho Supreme Court ruled that the Department was required by statute to "deliver" water to Musser.[30]

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[27] *In the Matter of Applications for Permit for Diversion and Use of Surface and Ground Water in the Snake River Basin Upstream from the USGS Gage on the Snake River Near Weiser*, Moratorium Order (May 15, 1992). The moratorium did not apply to applications for permit for domestic, commercial, municipal, industrial or non-consumptive uses.

[28] *In the Matter of Applications for Permit for Diversion and Use of Surface and Ground Water in the Snake River Basin Upstream from Milner Dam*, Moratorium Order (January 6, 1993).

[29] *In the Matter of Applications for Permit for Diversion and Use of Surface and Ground Water within the Eastern Snake River Area and the Boise River Drainage Area*, Amended Moratorium Order (April 30, 1993).

[30] *Musser v. Higginson*, 125 Idaho 392, 871 P.2d 809 (1994).

C. Recent Conjunctive Management Efforts.

1. *Conjunctive Management Rules.*

Still without an established procedure to conjunctively administer ground and surface water rights after the *Musser* decision, the Department initiated a negotiated rulemaking that resulted in the adoption of its current Conjunctive Management Rules in October 1994.[31] The Conjunctive Management Rules establish a procedure to respond to a delivery call by the holder of a senior surface or ground water right against holders of junior priority ground water rights in areas within organized water districts or in areas outside organized water districts determined to have a common ground water supply. The rules also set out criteria for determining whether rights are from an area of common ground water supply, whether the exercise of a junior ground water right is causing material injury to a senior water right, and the adequacy of mitigation plans.

Prior to 2003, only one delivery call had been made pursuant to these rules, and that matter was settled between the affected parties without applying these criteria to curtail diversions or review a proposed mitigation plan. Soon after the Conjunctive Management Rules were in place, A&B Irrigation District, which relies heavily on ground water from the ESPA, made a delivery call under the rules requesting that the Director curtail junior water rights—primarily ground water rights—until such time as the ground water levels increased in A&B Irrigation District's wells. The settlement of that administrative proceeding included an agreement that ground water pumpers outside A&B Irrigation District would form districts to measure, report and manage ground water within their boundaries. Outside the established ground water districts the Department was to establish and oversee water measurement districts that would carry out this measurement function.

2. Establishment of Water Measurement Districts.

In 1995, the Idaho Legislature passed Idaho Code Sections 42-706 through 715 in response to the Department's desire to facilitate measurement functions.[32] The statutes authorize the Director of the Department to create Water Measurement Districts to accomplish measurement and reporting of diversions outside of established water districts. A primary concern of the legislature was to expedite the Department's ability to obtain measurement and reporting of ground water diversions within the ESPA in light of the growing concern and potential for conflict in that area. A Water Measurement District is limited to measuring and reporting diversions within its boundaries and assessing members for the costs of such work. In October 1996, the Department created the East, North, and West ESPA Water Measurement Districts within the ESPA. The measurement and reporting functions can be assumed by ground water districts in the same areas.

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[31] Rules for the Conjunctive Management of Surface and Ground Water Resources, IDAPA 37.03.11.

[32] 1995 Idaho Sess. Laws, Ch. 291.

3. Establishment of Ground Water Districts.

The 1995 legislature also passed the Ground Water District Act authorizing the establishment of Ground Water Districts.[33] These districts have the authority to conduct water measurement and reporting, levy assessments to cover the districts' costs, incur indebtedness in furtherance of district responsibilities, represent members in legal proceedings affecting members' water rights, and develop mitigation and recharge plans. The AFAbGWD, BGWD, MGWD, BJGWD, NSGWD, MVGWD were established under this Act. The South West Irrigation District was established in 1986 under the Irrigation District statutes contained in Title 43, Idaho Code.

4. SRBA Basinwide Issue 5.

Also in 1995, Governor Batt directed the Department to increase its efforts to advance progress in the SRBA. That December, the Department recommended to the SRBA Court certain general provisions concerning interconnection of water rights in three test basins. The proposed provisions became known as the "conjunctive management general provisions." the Twin Falls and North Side Canal Companies objected to the recommendations and the matter became designated by the court as Basinwide Issue 5. The SRBA Court denied inclusion of the general provisions in its decree. On appeal the Idaho Supreme Court remanded the issue to the SRBA Court "[f]or the purpose of holding an evidentiary hearing to determine whether the [proposed] conjunctive management general provisions . . . are necessary to define or to administer water rights efficiently. . . ."[34]

Following the remand, in June 1998, the Department convened a meeting of interested parties to discuss options for a conjunctive management general provision that would satisfy the conditions of the Supreme Court decision and be acceptable to the parties. At a subsequent meeting, a general consensus developed among the parties for a conjunctive management general provision almost identical in form to the general provision currently being decreed for various subbasins by the SRBA Court. Nevertheless, several additional years of litigation ensued before a settlement on this language was reached. The general provision establishes which sources of water for decreed rights are to be administered conjunctively. It does not, however, specify that conjunctive management is necessary or how conjunctive management will be implemented should it be found necessary. The general provision also provides notice to holders of ground water rights that their rights are subject to administration conjunctively with surface rights from the decreed interconnected sources.

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[33] 1995 Idaho Sess. Laws, Ch. 290.

[34] *A & B Irrigation District v. Idaho Conservation League*, 131 Idaho 411, 958 P.2d 568 (1998).

5. Draft Water Management Rules.

In addition to the Conjunctive Management Rules, the Department has proposed Water Management Rules in draft form that would have statewide applicability.[35] These rules are intended as blanket rules, of which the existing Conjunctive Management Rules would become a subset. They propose a process by which the Department would administer (i.e., curtail, reduce diversions of, or require mitigation from) junior water rights, including junior ground water rights, to prevent injury to senior ground and surface water rights. A key difference between the proposed Water Management Rules and the Conjunctive Management Rules is that administration of junior ground water rights would occur in the absence of a senior delivery call whenever the Department determined that such diversions were causing injury.[36] The draft Water Management Rules also propose criteria for establishing rebuttable presumptions about the depletive effects of ground water withdrawals and about whether injury is occurring to a senior water right as a result of junior ground water withdrawals.

6. Establishment of the Thousand Springs and American Falls GWMAs.

On August 3, 2001, following several years of drought, the Department issued orders designating the Thousand Springs GWMA and the American Falls GWMA.[37] In those orders, the Department stated its intent to curtail certain ground water diversions that it believed were causing significant depletions to hydraulically connected surface water sources within the TSR and AFR. The orders were based on the Department's conclusion that ground water withdrawals from the ESPA for irrigation and other consumptive purposes, which occur in proximity to the Thousand Springs area and the area of the American Falls reach, cause significant reductions in spring flows tributary to the TSR and in reach gains to the AFR within six months or less from the time the withdrawal occurs. The American Falls GWMA order concluded that ground water diversions occurring within a band on both sides of the AFR varying in width from 1.6 kilometers to five kilometers on each side of the river result in seasonal reach gain reductions equal to fifty percent or more of the amount of water diverted and consumptively used, and such reductions occur within six months of the diversions.[38] Finally, the orders concluded that the

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[35] Working Draft Text for Negotiated Rulemaking by the Idaho Department of Water Resources, IDAPA Docket No. 37-0313-9701 (July 10, 2001).

[36] Section 37.03.13.020.04.a of the draft rules provides:

> [W]hen data gathered by the Department or otherwise submitted to the Department show to the satisfaction of the Director that the diversion of ground water under any water right, which is not included in a water district, causes injury to a senior priority surface water right or to a senior priority ground water right, such junior priority diversion shall be curtailed under the provisions of Section 42-237a.g., Idaho Code, unless approved mitigation is provided in accordance with Rule 20.13 of these rules.

[37] *In the Matter of Designating the Thousand Springs Ground Water Management Area*, Order (August 3, 2001); *In the Matter of Designating the American Falls Ground Water Management Area,* Order (August 3, 2001).

[38] *In the Matter of Designating the American Falls Ground Water Management Area,* Order (August 3, 2001) at 2.

designated areas "may be approaching the conditions of a critical ground water area under Idaho Code 42-233a."[39] The Districts disputed these conclusions and actions.

Almost simultaneously with the Department's actions, North Side and Twin Falls Canal Companies and Clear Springs Foods requested that the Department designate Basin 36 as a GWMA. The Department treated these requests as formal petitions and noticed the matter for an administrative hearing. Certain ground water users filed responses to these petitions and thereby became parties to the administrative proceeding before the Department. Ground water users also brought suit against the Department in the Power County District Court seeking an order determining that the GWMA designations were improper and enjoining the Director from curtailing ground water diversions.[40]

7. Interim Settlement Agreements.

Concurrent with the above developments, ground water users, the surface and spring water users, and the Department engaged in discussions aimed at reaching an interim settlement by which to avoid the threatened curtailment of ground water diversions serving thousands of acres of irrigated farm ground as well as municipal and commercial diversions.

On August 31, 2001, ground water users, and certain surface and spring water users reached agreements in principle that later were memorialized by written interim settlement agreements aimed at avoiding the pending litigation and establishing a framework for conjunctive administration until a long-term agreement could be reached ("Interim Agreement").

The primary strategies under these Interim Agreements were to acquire and provide replacement water and/or reduce the use of ground water for irrigation within the MVGWD, NSGWD, AFAbGWD and BGWD. The Interim Agreements resulted in: 1) the withdrawal of the pending petitions to designate GWMAs; 2) the voluntary dismissal without prejudice of the ground water users' complaint against the Department in the Power County District Court; 3) the agreement by NSGWD and MVGWD to acquire and provide up to 40,000 AF of "replacement water" via the North Side Canal to enhance reach gains in the TSR for the 2002 and 2003 irrigation seasons;[41] 4) the agreement by AFAbGWD and BGWD to acquire and provide 28,500 acre-feet of replacement water for above-Milner canal companies; and 5) agreement by the AFAbGWD, BGWD, MVGWD and NSGWD to voluntary percentage reductions of ground water diversions pro-rata from a subsequently agreed upon baseline to the extent that

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[39] Idaho Code § 42-233a defines a critical ground water area as any ground water basin or designated part thereof, not having sufficient ground water to provide a reasonably safe supply for irrigation of cultivated lands, or other uses in the basin at the then current rates of withdrawal, or rates of withdrawal projected by consideration of valid and outstanding applications and permits.

[40] Petition for Judicial Review and Complaint for Preliminary Injunction, Writ of Prohibition, Writ of Mandate, and for Declaratory Relief, In the District Court of the Sixth Judicial District of the State of Idaho, In and For the County of Power (filed August 21, 2001)

[41] Under the Interim Agreement, NSGWD agreed to provide up to twenty-five thousand AF of water and MVGWD agreed to provide up to fifteen thousand AF in both 2002 and 2003, or be subject to voluntary curtailments.

replacement water was not provided in any year. The Interim Agreement between the MVGWD and NSGWD and spring users in the TSR expired without the parties having reached a long-term agreement.

Also, during the interim, certain water users who were not signatories to the Interim Agreement filed delivery calls with the Department seeking curtailment of junior ground water rights in the ESPA. As result, in October, 2003, the MVGWD and NSGWD filed an Application for Approval of Preliminary Mitigation Plan with the Department. The Preliminary Mitigation Plan received over sixty protests. That contested case was stayed as part of a settlement agreement reached in March 2004.

Parties to the above-Milner Interim Agreement agreed to extend the Interim Agreement and continue to negotiate toward a long-term agreement. That Interim Agreement expired December 31, 2004.

Under the Interim Agreements, the Districts acquired and provided approximately 126,000 acre-feet of replacement water to the AFR and TSR, implemented District-wide percentage reductions of irrigation and shortened irrigation seasons, converted 9,700 acres of previously ground water-irrigated acres to surface water supplies, and constructed water management and delivery structures that provide up to 10,000 acre-feet of replacement water per year to approximately 1,600 irrigated acres in the Hagerman Valley.

8. Establishment of Water Districts 120 and 130.

The Department's position has been that it cannot directly administer ground and surface water rights until they have been decreed and then incorporated into a water district established pursuant to Chapter 6, Title 42 of the Idaho Code. As the Department has recommended water rights in various basins to the SRBA Court, it has requested that the Court authorize the "interim administration" of rights pursuant to its recommendations pending issuance of partial decrees. As recommended water rights subsequently have been decreed, the Department has incorporated them into water districts. In 2002, the Department established Water Districts 120 and 130 to encompass adjudicated ground water rights within their boundaries. These two Water Districts encompass all of the MVGWD, NSGWD and BGWD, and most of the AFAbGWD. The Department has stated its intent to create Water District 110 in the northeastern end of the ESPA when those rights have been adjudicated. This Water District is expected to encompass all of the BJGWD and a portion of the MGWD. The SWID is expected to be incorporated into Water District 140 when ground water rights within the SWID have been adjudicated.

9. The March 15, 2004 Settlement Agreement.

In 2003, Clear Lakes Trout Company, Fisheries Development Company, Rim View Trout Company and the Estate of Earl M. Hardy (collectively "Clear Lakes") and Rangen, Inc. ("Rangen") filed delivery calls with the Department seeking curtailment of junior ground water diversions. Rimview Trout Company and the Estate of Earl M. Hardy also brought an action in the District Court, Ada County challenging, among other things, the Department's Conjunctive Management Rules and its basis for approval of the Interim Agreement for the TSR. The

Director denied the Clear Lakes delivery calls but recognized the Rangen delivery call and gave notice of his intent to curtail junior ground water rights effective April 1, 2004. Litigation involving the Preliminary Mitigation Plan, the Department's designation of the Thousand Springs and American Falls GWMAs, the Clear Lakes and Rangen delivery calls and the validity of the Conjunctive Management Rules continued.

On March 15, 2004 a negotiation meeting was called among the various litigating parties that also included representatives from the Idaho legislature and the Governor's Office. That meeting resulted in development of the Eastern Snake Plain Aquifer Mitigation, Recovery and Restoration Agreement for 2004 (the "March 15, 2004 Agreement"). That agreement contained commitments on behalf of the State of Idaho, the MVGWD and NSGWD and certain spring users in the TSR, which included a commitment to continue negotiations aimed at reaching a long-term approach to aquifer mitigation and water management, stays of pending litigation and of any further delivery calls until March 15, 2005 and continuing mitigation efforts at current levels by the MVGWD and NSGWD.

Above-Milner ground and surface water users were not signatories to this agreement as they were continuing negotiations through December 31, 2004 under their extended Interim Agreement.

III. Plan Goals, Objectives, and Strategies.

A. Plan Goals.

1. To implement targeted, short-term strategies that will mitigate material injury to senior surface water rights, if any, resulting from ground water withdrawals under junior priority rights of the Districts' members in the year such material injury occurs.

2. To implement long-term strategies that will complement short-term, year-to-year mitigation, enhance the ESPA water budget and optimize the quantity of water provided through the Districts' mitigation efforts that accrues to senior surface water users' natural flow and storage supplies while minimizing the quantity of water provided as a result the Districts' mitigation efforts that will spill below Milner.

3. To protect the Districts' members from a delivery call or other administrative actions seeking to curtail ground water withdrawals to fill senior surface water rights in the AFR.

B. Plan Objectives.

1. Obtain Firm Supplies of Replacement Water.

The Districts will acquire storage and/or natural flow water that can be delivered as replacement water or exchanged with other surface water supplies during periods when senior

surface water rights are deemed to be experiencing material injury due to withdrawals of ground water under junior priority rights. The Districts also will evaluate the development and use of large-volume ground water wells in the vicinity of the Snake River, tributaries and canals to provide replacement water.

2. Curtail Ground Water Use.

On a year-to-year basis, the Districts will reduce ground water withdrawals or surface water demand to the extent that replacement water cannot be obtained in any year that material injury to senior surface water rights is determined to be occurring. The Districts will facilitate long-term or permanent reductions of ground water withdrawals within their boundaries. Curtailments as short-term mitigation for material injury to surface water users in the AFR will be implemented primarily, if not exclusively, in those Districts whose members' pumping has the most direct hydraulic effect on the AFR, as determined by the new ESPA model.

3. Develop Feasible/Effective Aquifer Recharge.

The Districts, with the cooperation and assistance of the Department and other relevant agencies and water users, will cooperate in long-term, large-scale aquifer recharge on the ESPA.

4. Participate in Acquisition and Exchange of Below-Milner Natural Flow Water Rights.

The Districts will participate on an equitable basis with other ESPA and Snake River Basin Water Right Holders in a State program to acquire below-Milner natural flow water rights for exchange into above-Milner storage. This participation is contingent on such acquisition and exchange providing the Districts with firm, priority access to exchanged water for approved District mitigation activities.

5. Establish Monitoring Program.

The Districts will cooperate with the Department in monitoring and documenting Plan performance and Plan effects, and in measuring and reporting all relevant withdrawals, discharges, diversions and uses of ground and surface water.

6. Implement Adaptive Management.

The Districts will implement an adaptive management approach to incorporate new information into the strategies described in this Plan.

C. Plan Strategies.

1. Provide Replacement Water.

The primary strategy for the short-term component of this mitigation plan is the provision of up to 65,000 acre-feet of replacement water in any one year to mitigate injury remaining after

the benefits of long-term actions are taken into account. This replacement water will be provided from a variety of sources including but not limited to: (1) rental of storage water from the Water District 01 Rental Pool; (2) permanent or dry-year private leases or purchases of surface or ground water supplies; and (3) pumping of ground water via replacement supply wells operating under Idaho Water Resource Board permits.

2. Implement Curtailment of Ground Water Diversions

Subject to the limitations set forth below, to the extent that surface water available to the Districts to be used as replacement water in any year is insufficient to fully mitigate remaining material injury experienced by senior surface water users during that year, the Districts will implement curtailment of ground water use within their Districts.

Curtailment will be implemented by the Districts under any or all of the following measures:

a. To the extent that implementation of other designated mitigation measures will be otherwise insufficient to satisfy the District's mitigation obligation in any year, District members will be directed to not withdraw ground water for irrigation during the first fifteen days and the last twenty-five days of the decreed period of use for their water right.

b. To the extent that implementation of other designated mitigation measures will be otherwise insufficient to satisfy the Districts' mitigation obligation in any year, the Districts may implement dry-year leases of ground or surface water irrigated acres. As among the Districts, District-wide percentage reductions will not necessarily be the same, but will reflect the nature and extent of hydrologic connection between ground water rights in such districts and the AFR, and/or other mitigation actions being implemented by the Districts.

c. To the extent that implementation of other designated mitigation measures will be otherwise insufficient to satisfy the Districts' mitigation obligation in any year, the Districts may require curtailment of ground water diversions serving acres recognized as enlargement acres in water right decrees issued by the Snake River Basin Adjudication court.

d. To the extent that implementation of other designated mitigation measures will be otherwise insufficient to satisfy the Districts' mitigation obligation in any year, the Districts will impose District-wide percentage reductions in ground water diversions by their members, up to a maximum of ten percent of the total ground water irrigated acreage of their members.

3. **Long-Term Reduction of Ground Water Withdrawals.**

a. The Districts propose to facilitate enrollment of an estimated collective total of 70,000 ground water-irrigated acres within their boundaries into the Conservation Reserve Enhancement Program ("CREP"). Implementation of CREP is contingent on federal approvals and appropriations and the level of voluntary participation. Full implementation is expected to occur by 2010.

b. The Districts propose to facilitate the conversion of an estimated collective total of 15,000 ground water-irrigated acres within their boundaries to surface water irrigation using surface water as the primary source of supply where such conversion is economically feasible. These conversions are anticipated to occur primarily if not exclusively within Water District 130.

c. The Districts propose to facilitate enrollment of additional ground water-irrigated acres within their boundaries in other voluntary set-aside programs as opportunities arise.

4. **Participation with Other ESPA and Snake River Water Users in Funding and Implementing a State-Managed, Long-Term, Large-Scale Aquifer Recharge in the ESPA.**

a. The Districts propose to participate with surface and spring water users in funding and implementing a State-managed, large-scale, aquifer recharge program designed to recharge an average of at least 170,000 acre-feet per year through the North Side Canal and the Milner-Gooding Canal.

b. The Districts propose to participate with Snake River surface water users in funding and implementing feasible, State-managed, large-scale, aquifer recharge to recharge water in excess of the above-referenced 170,000 acre-feet that would have primary return flow benefits to the Snake River above Milner Dam.

5. **Establishment of Accounting System.**

The Districts, in cooperation with the Department, will establish an accounting system to accurately record and document the quantities of replacement water and curtailment benefits delivered from implementation of the strategies described above. This accounting system will address:

a. Credits for surface water acquired and provided as direct replacement water in any given year.

b. Credits for curtailments of ground water diversions by District members.

c. Credits for dry-year leases of surface water-irrigated acres.

d. Credits for discrete aquifer recharge projects undertaken specifically by the Districts, directly, contractually or incidentally.

e. Credits for replacement water provided via transfers, exchanges, substitute supplies or other agreements.

f. Carryover of any credits from implementing strategies that have multi-year water supply benefits, including long-term components of this Plan.

g. Allocation of transient and steady state impacts of mitigation actions over the term of the Plan.

6. Monitoring.

Reliable and systematic measurement and reporting of surface and ground water diverted volumes, diversions and uses are essential to proper administration of water rights under the prior appropriation doctrine and Idaho law. The Districts propose the following monitoring actions:

a. The Districts, through District Hydrographers, will measure and report ground water withdrawals within their boundaries.

b. The Districts, through District Hydrographers, will cooperate with the Water District Watermasters to identify unauthorized uses of ground water within their respective jurisdictions.

c. The Districts will cooperate with the Water District Watermasters to measure and document all replacement water provided to surface water users, and volumes delivered to converted acres or to aquifer recharge.

e. The Districts, will cooperate with the Department and surface water users in using the above-described measurements, the accounting system and other records or data collected by the Department, the Water District Watermasters and District Hydrographers to: (1) perform the technical data analyses necessary to ascertain the relationships between Plan actions and reach gains; and (2) evaluate potential injury to senior surface water rights that may be resulting from ground water withdrawals by the District's members.

7. *Incorporate Adaptive Management.*

Adaptive management is a process for continually improving management policies and actions by learning from their outcomes. This Plan has been developed to incorporate each of the six steps of an adaptive management process: (1) problem assessment; (2) plan design; (3) plan implementation; (4) monitoring; (5) evaluation; and (6) plan adjustment.

8. Limitations on District Mitigation Obligations Under this Mitigation Plan.

The Districts' collective mitigation obligation under this Plan and the above strategies are limited by the following:

a. The Districts' maximum collective mitigation obligation under any or all of the above short-term strategies in any year will not exceed 65,000 acre-feet. 65,000 acre-feet represents the amount of water that the new ESPA model predicts would accrue to the AFR in one year by curtailment of all of the District's members pumping under water rights with priority dates junior to 1900. It also represents a reasoned estimate of the amount of water that could be beneficially used or captured as storage by senior surface water users in the then current water year. An operational analysis supporting this reasoned estimate is found in Attachment 7.

b. The Districts' maximum collective mitigation obligation under any or all of the above strategies in any year will not include any obligation to offset the effects, injurious or otherwise, of ground water diversions by any ground water user not a member of one of the Districts participating in this Plan.

c. This Plan does not provide for replacement water or curtailment to serve any surface water-irrigated lands irrigated with an appurtenant water right that has been decreed in the Snake River Basin Adjudication as an enlargement of the decreed water right.

d. This Plan does not provide for mitigation to surface water users to the extent that surface water conservation measures reduce incidental recharge to the ESPA, or reduce reach gains or return flows to the Snake River or its tributaries.

e. This Plan does not provide for mitigation for adverse effects on surface water users' water rights resulting from water bank rules, water bank accounting, water bank transactions or below-Milner deliveries of storage for any purpose, including but not limited to, power generation or flow augmentation required for endangered species conservation.

f. This Plan does not provide for mitigation to a senior surface water user to the extent such surface water user's rental of storage water to the water bank in prior years, or the then current year reduces the amount of storage available for beneficial use in the then current year or reduces such surface water user's carryover storage supply in the following year.

D. Predicted Plan Results

The State's "Straw Man" proposal envisions three long-term water management measures that would add to the ESPA water budget:

1. A program of managed recharge, primarily utilizing the Milner-Gooding and North Side Canals, that would add an average of 170,000 acre-feet per year (170 KAF/yr) to the aquifer by diverting excess natural flow at Milner.

2. A Conservation Reserve Enhancement Program (CREP) that would withdraw 100,000 acres of ground water irrigated land from production using voluntary means.

3. Conversion of a total of 45,000 acres of ground water irrigated land to surface water supply serviced by water made available through the exchange of natural flow rights below King Hill for upper Snake River supplies that would otherwise be delivered past Milner for endangered species purposes.

These three measures would add approximately 500 KAF/yr to the ESPA water budget. In addition, supplemental surface water supplies that would also be made available as a result of the natural flow/upper Snake exchange would result in an additional 35 KAF/yr of incidental recharge to the aquifer. Based on results from the new ESPA model, this enhanced aquifer water budget will ultimately cause reach gains above Milner to increase by about 330 cubic feet per second (cfs) or 238 KAF/yr.

An operations study was performed to evaluate the effectiveness of these measures in meeting potential water shortages for major canals diverting from the AFR, and to assess the need for additional short-term mitigation. The historical water uses of the seven entities comprising the Surface Water Coalition were examined. Based on their historical water use practices (e.g., regular consignment of the their storage supplies to the rental pool for use by others), all but three of these entities were deemed not to suffer shortages. Only the American Falls Reservoir District #2, the North Side Canal Company and the Twin Falls South Side Canal Company (collectively, the "three canal companies") showed water use behaviors suggestive of shortages.

The historical annual diversions of the three canal companies were examined and the lower quartile (lowest 25%) of years was identified for each. It was initially assumed that all years in which the annual diversion was less than the lower quartile reflected some degree of water shortage. These lower quartiles thus defined a minimum diversion requirement for the three canal companies of 2.48 million acre-feet per year (MAF/yr). Three other factors (spills past Milner, Palmer Drought Severity Index, and AFRD#2 carryover) were also examined to identify and eliminate years when diversions were low because of reduced demand. Potential shortages for the three canal companies were then defined as the difference between their historical diversion and the minimum diversion of 2.48 MAF/yr defined by the lower-quartile analysis. These potential shortages ranged from zero to 304 KAF/yr, and averaged about 40 KAF.

The operations study considered the reach gains from the long-term mitigation measures comprising the State's Straw Man proposal, the potential shortages estimated using the process described above, and the historically available storage space in American Falls Reservoir. The study was carried out on a monthly basis over the 1961-2003 period. The operations study revealed that the gains from long-term measures would eliminate nearly all of the estimated potential shortages. Over the 44-year study period, potential shortages remained in only 3 years and these averaged about 60 KAF. The increased reach gains from long-term mitigation activities led to increased annual deliveries of up to 304 KAF, but the analysis also showed that more than 80% of the increased reach gain ultimately spilled past Milner Dam because it could not be diverted or held in storage by AFR surface water users.

This operations analysis suggests that short-term mitigation will be needed only infrequently once the benefits of the long-term measures are expressed, and that short-term mitigation of approximately 65 KAF would likely be more than sufficient to eliminate any remaining potential shortages. Graphical results of this operations study are presented in Attachment 7.

Dated February 8, 2005.

NORTH SNAKE GROUND WATER DISTRICT

By: _____
Michael C. Creamer

Attorney for North Snake Ground Water District

MAGIC VALLEY GROUND WATER DISTRICT

By: _____
Michael C. Creamer

Attorney for Magic Valley Ground Water District

BINGHAM GROUND WATER DISTRICT

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AMERICAN FALLS-ABERDEEN GROUND WATER DISTRICT

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BONNEVILLE-JEFFERSON GROUND WATER DISTRICT

By: _____
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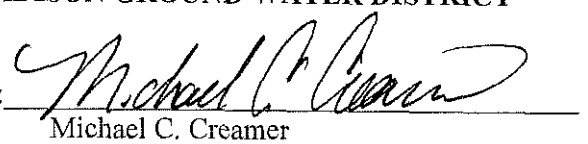
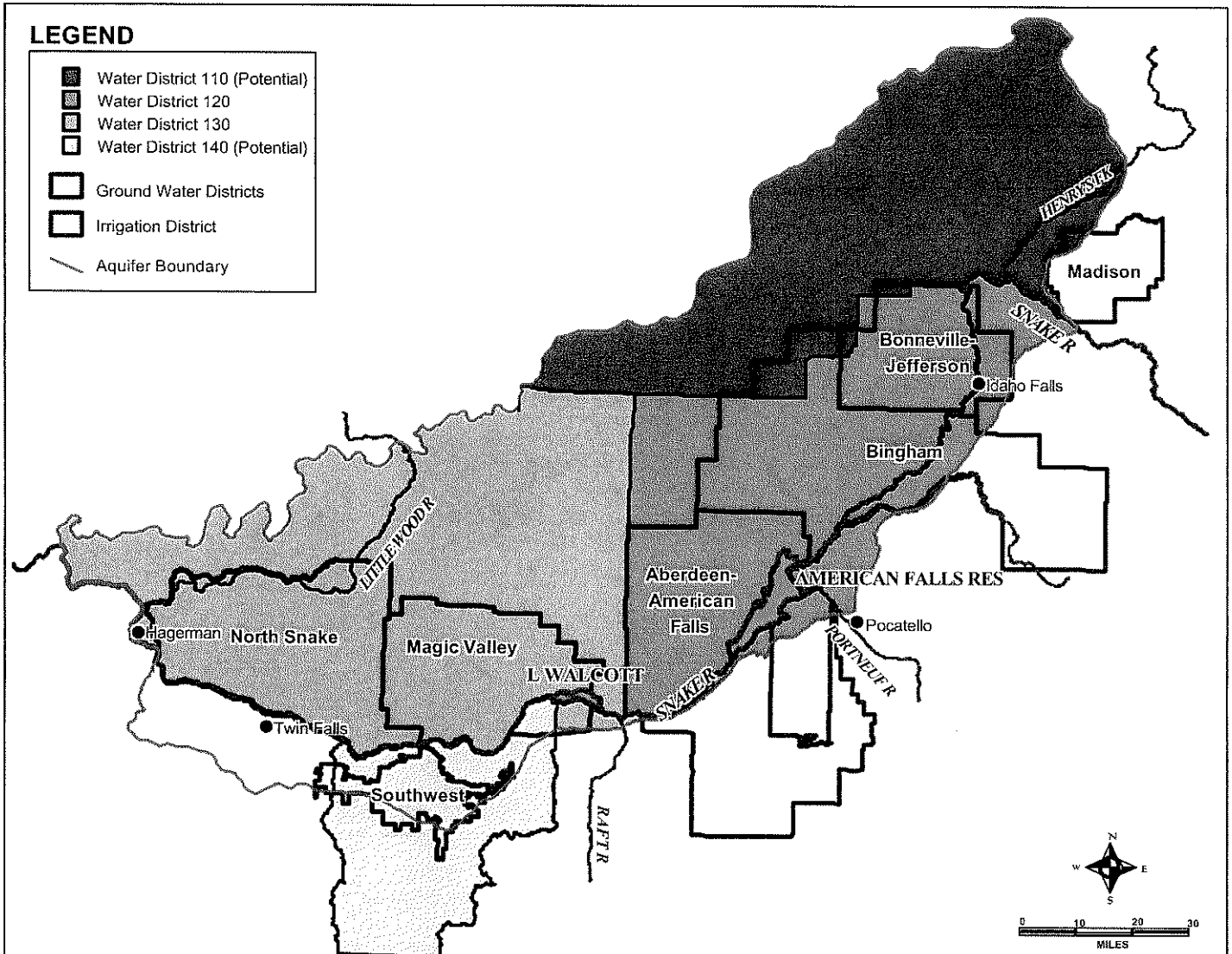
Attorney for Bonneville-Jefferson Ground Water District

MADISON GROUND WATER DISTRICT

By: 
Michael C. Creamer

Attorney for Madison Ground Water District

ATTACHMENT #1



Attachment 1

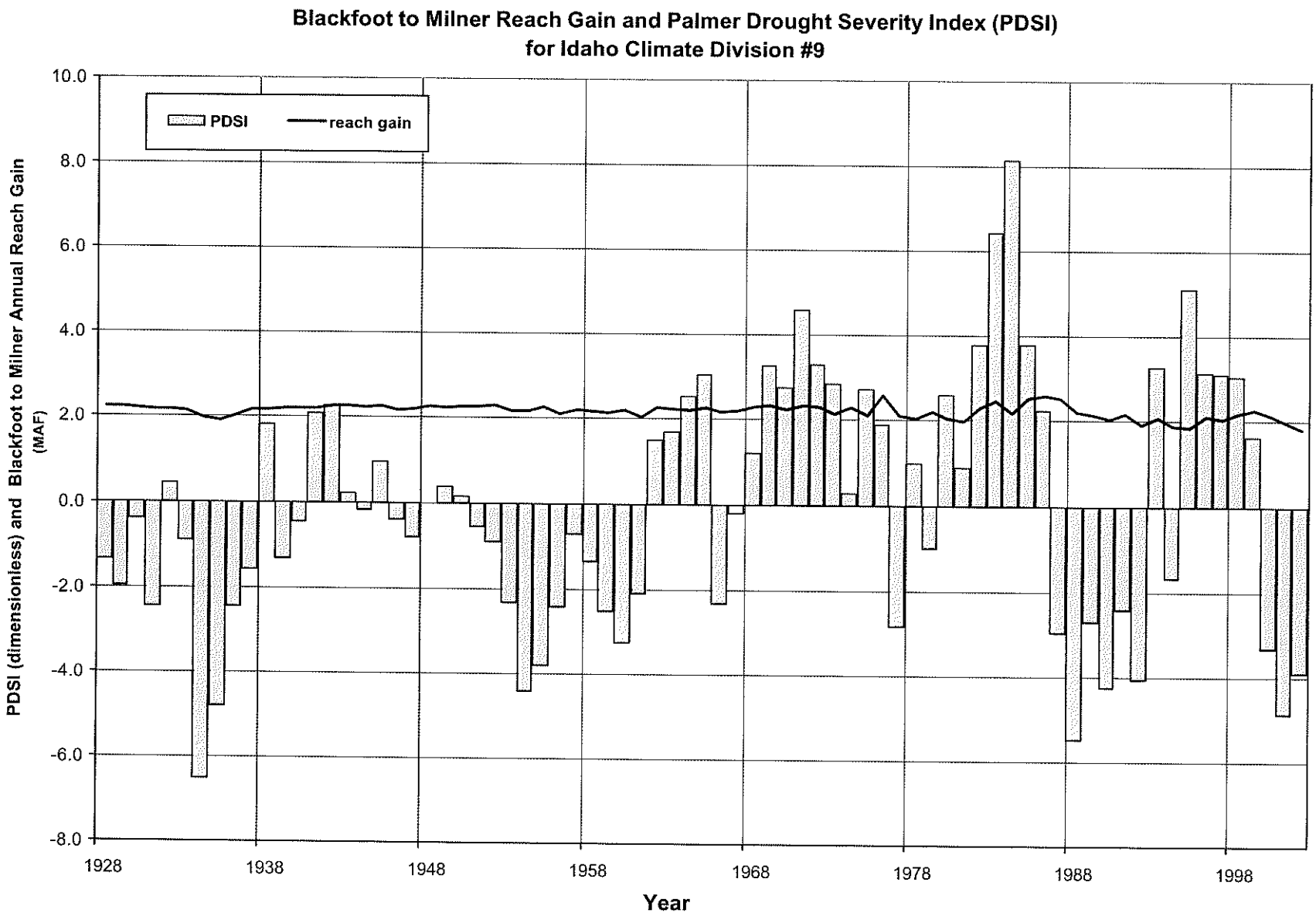
Eastern Snake Plain Aquifer and Irrigation and Ground Water Districts Covered by Mitigation Plan

HYDROSPHERE Resource Consultants

February 2005

ATTACHMENT #2

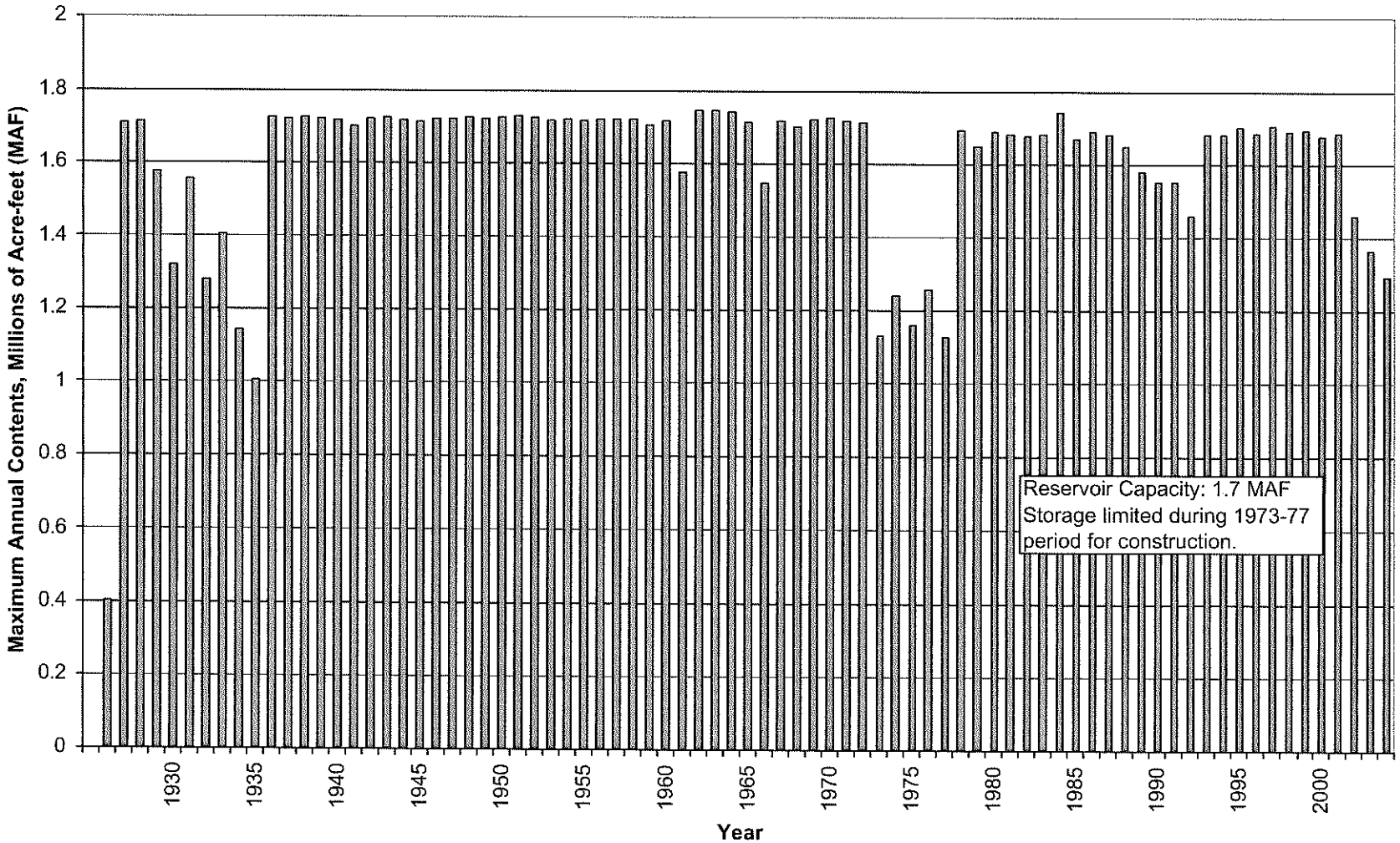
Attachment 2



ATTACHMENT #3

Attachment 3

American Falls Reservoir Filling History



ATTACHMENT #4

Table 1. Initial Storage Allocation in Acre-feet

Irrigation Year	Ft. Hall	Falls ID	Minidoka ID	Burley ID	A&B ID	Milner ID	AFRD #2	North Side	Twin Falls	Total
1980	129139	63000	323766	198437	135828	88384	391238	772466	219139	2321397
1981	129078	62970	332969	204078	135768	88320	390594	803875	228891	2376543
1982	129728	63287	329916	202206	136452	88768	392621	774568	219660	2337206
1983	129559	63205	329281	201818	136270	88672	392488	774210	219610	2335113
1984	129576	63213	330407	202507	136290	88674	392360	774114	219561	2336702
1985	129022	62943	279334	171205	135704	88313	391035	646905	180062	2084523
1986	129590	63220	288130	176596	136305	88682	391381	634379	183914	2092197
1987	127806	62350	274256	168092	134423	87492	386582	641988	178751	2061740
1988	112307	57855	265924	162986	94824	87834	387620	643712	179143	1992204
1989	95998	57396	331318	184289	104195	87323	387631	849608	243693	2341451
1990	101666	58820	318055	205677	120529	83974	388345	850893	243963	2371922
1991	128210	62544	332498	214783	134843	82641	388187	851267	243903	2438876
1992	91607	40726	261174	211819	129155	81366	385742	760111	208481	2170181
1993	129782	63313	359949	222394	136510	88797	391634	800358	225205	2417942
1994	129131	62996	353864	220981	135831	88326	389169	845274	241724	2467296
1995	128890	62878	353938	218735	135560	89364	390083	853976	244620	2478044
1996	127917	62404	351616	218641	134505	88846	390307	848608	243389	2466233
1997	129202	63031	356554	220358	135890	89577	390952	855218	244948	2485730
1998	129285	63071	355576	219792	135982	89603	390586	854992	244810	2483697
1999	122684	59853	352350	220190	128868	85867	387623	828121	239036	2424592
2000	125149	61054	345866	219066	131598	86908	381557	815653	233550	2400401
2001	80776	49436	341205	213032	122028	89107	387102	766223	209758	2258667
2002	45904	31159	311734	211884	55505	70284	385668	710218	213150	2035506
2003	45571	27159	326589	218304	54881	57829	381488	783783	235912	2131516
2004	38136	26034	297455	191431	45192	44874	297362	594967	163109	1698560
Avg	111829	56557	324149	203972	120917	83993	385174	773419	220319	
Min	38136	26034	261174	162986	45192	44874	297362	594967	163109	
Max	129782	63313	359949	222394	136510	89603	392621	855218	244948	
Space Owned	130831	63825	366544	226487	137626	90591	393550	859898	245930	2515282

Notes:

All data taken from District 1 Watermaster reports.

2004 data are provisional.

Storage allocation between Minidoka ID and Burley ID prior to 1989 estimated as 62% MID, 38% BID.

Space owned taken from provisional 2004 data.

Table 2. Total Diversion in Acre-feet/Acre

Irrigation Year	Ft. Hall	Falls ID	Minidoka ID	Burley ID	A&B ID	Milner ID	AFRD #2	North Side	Twin Falls
1980	2.0	3.0	7.0	4.2	3.5	4.5	7.5	6.9	5.3
1981	1.9	3.2	6.4	6.2	4.0	3.7	5.2	6.8	5.6
1982	2.1	2.7	6.4	4.2	3.1	4.4	6.8	6.5	5.0
1983	1.6	2.3	5.6	6.0	3.2	3.8	6.8	6.6	5.2
1984	2.2	2.2	6.0	5.2	3.0	3.8	7.1	6.3	4.9
1985	2.4	2.6	5.6	6.1	3.4	4.7	7.4	6.6	5.5
1986	2.5	2.6	6.5	4.5	3.3	4.5	7.6	6.4	5.6
1987	3.1	2.9	5.8	6.2	3.6	4.8	7.8	6.5	5.6
1988	3.1	3.6	5.9	5.8	3.1	4.9	6.9	6.1	5.2
1989	3.1	3.4	5.7	5.7	3.7	4.4	7.3	6.7	5.6
1990	3.1	3.5	5.9	5.9	4.1	4.8	7.7	7.1	5.9
1991	2.4	3.2	5.2	5.4	3.8	4.2	7.2	6.7	5.6
1992	3.0	3.5	5.2	5.2	4.3	4.5	5.9	6.1	4.8
1993	1.8	2.4	4.6	4.9	3.4	3.9	6.1	6.8	5.2
1994	2.7	3.5	5.2	5.3	4.0	4.4	6.7	7.0	5.3
1995	1.9	2.8	4.4	4.6	3.4	3.8	6.4	6.2	5.3
1996	2.5	3.2	5.1	5.1	3.9	4.4	7.9	6.8	5.8
1997	1.9	2.8	4.9	5.1	3.5	4.4	7.5	7.0	5.6
1998	2.0	2.6	4.4	4.7	3.5	3.9	7.7	6.9	5.4
1999	2.2	2.7	4.4	4.9	3.6	4.0	7.8	6.9	5.7
2000	3.0	3.1	5.2	5.8	4.3	4.9	7.9	7.2	5.8
2001	2.5	2.9	4.3	5.5	4.3	4.7	6.4	4.7	5.0
2002	2.5	2.8	4.5	4.8	3.9	4.6	6.2	5.9	5.0
2003	2.7	2.9	4.6	5.2	4.1	4.5	6.1	6.2	5.2
2004	2.5	2.4	4.1	6.3	3.4	3.4	4.7	5.9	5.0
Avg	2.4	2.9	5.3	5.3	3.7	4.3	6.9	6.5	5.4
Min	1.6	2.2	4.1	4.2	3.0	3.4	4.7	4.7	4.8

Notes:

1. All data taken from District 1 Watermaster reports.
2. All 2004 data are provisional and estimated using 2003 reported acreage.

Table 3. Water Bank Activity in Acre-feet

Consigned to Bank(+), Leased from Bank(-)

Irrigation Year	Ft. Hall	Falls ID	Minidoka ID	Burley ID	A&B ID	Milner ID	AFRD #2	North Side	Twin Falls	Total Leased
1980	0	19833	0	0	0	-1452	0	0	49581	1452
1981	-250	20000	50000	0	50000	-1450	0	0	20000	1700
1982	-250	20000	75000	0	50000	-1500	0	0	50000	1750
1983	-250	20000	150000	0	75000	3500	0	50000	100000	250
1984	0	25000	350000	0	75000	8500	0	50000	70000	0
1985	0	25000	95000	0	75000	-1500	0	0	27694	1500
1986	0	25000	200000	0	0	13500	0	60000	80000	0
1987	0	25000	90000	0	75000	-2000	0	0	0	2000
1988	0	15000	90000	0	27000	-2300	0	-32526	0	34826
1989	0	20000	80000	100000	30000	14077	-225	0	0	225
1990	0	18000	75000	60000	0	-1359	-1743	0	0	3102
1991	0	18500	50000	0	0	-7980	-2583	0	0	10563
1992	0	0	0	0	0	-494	0	0	0	494
1993	0	20000	0	0	0	6201	-345	0	0	345
1994	0	5000	0	-4000	0	-6199	-330	0	-20000	30529
1995	0	20000	25000	19700	25000	-12207	-225	20000	5000	12432
1996	0	20000	25000	25183	20000	-9398	-20231	48353	-3757	33386
1997	0	25000	50000	46472	20000	-6366	0	0	-800	7166
1998	0	25000	50000	50000	20000	-794	-8404	0	-500	9698
1999	0	0	50000	0	20000	-7762	-11133	-446	-500	19841
2000	0	20000	10000	12000	20000	-1625	-160	0	-4000	5785
2001	35955	0	0	0	0	0	0	0	0	0
2002	0	4000	-651	-1738	3000	-1131	-362	-13130	-15189	32201
2003	0	2983	23777	9136	-17	-2463	-345	-3458	-15071	21354
2004	0	0	0	0	0	0	-1202	0	-19228	20430
Avg	1408	15733	61525	12670	23399	-888	-1892	7152	12929	13822
Min	-250	0	-651	-4000	-17	-12207	-20231	-32526	-20000	

Notes:

1. All 2004 data are provisional.
2. Consignments may not include private agreements.
3. Alllocation of 2004 late season fill not yet complete, so 2004 consignments are not shown.

Table 4. End of Year Storage Carryover in Acre-feet

Irrigation Year	Ft. Hall	Falls ID	Minidoka ID	Burley ID	A&B ID	Milner ID	AFRD #2	North Side	Twin Falls
1980	103056	42867	169333	103784	101581	55261	140485	368267	123276
1981	58649	24690	44455	27246	51141	46368	75597	185130	21935
1982	119289	42477	250862	153754	86061	74039	261939	573123	154356
1983	118721	42551	234967	144012	68989	71788	227520	509251	124236
1984	115002	47901	246553	151113	91982	68916	238599	630230	170553
1985	97585	26155	70637	43294	33900	48644	125200	171504	8169
1986	109685	49376	232416	142449	113786	64382	205471	406571	135832
1987	36192	25925	27917	17111	38716	35916	4808	5804	19316
1988	14175	19870	0	0	22904	33502	7268	59107	2052
1989	38258	29516	131734	37541	56214	42068	36493	323344	133567
1990	16720	19245	38746	16258	64501	30503	0	122690	41538
1991	49494	23645	101209	90028	88156	47686	22101	265013	67992
1992	6441	13239	16928	31977	11966	28896	11548	19439	3590
1993	111157	40779	264713	154461	102493	60332	123508	300942	104424
1994	27053	32518	102823	54136	82885	45902	26894	128356	38686
1995	107654	46445	258028	159214	103295	75451	167451	476312	68576
1996	106158	42193	253786	150358	105209	70250	145019	522790	111459
1997	101138	44230	242758	134906	102539	65307	114684	464411	136926
1998	114014	42757	227726	157265	100817	69348	144057	494385	156433
1999	61140	45343	243322	168545	93354	67147	121793	453706	191501
2000	24536	23745	161443	107425	69436	45762	20787	205510	56536
2001	0	8914	55132	37430	9902	26854	4217	42421	26917
2002	2530	5054	102139	74573	30192	14662	8932	133702	46824
2003	3243	10860	82895	52550	9401	6944	3904	169674	0
Avg	64245	31262	148355	92060	68309	49830	93261	292987	81029
Min	0	5054	0	0	9401	6944	0	5804	0

Notes:

1. Storage allocation between Minidoka ID and Burley ID prior to 1989 estimated as 62% MID, 38% BID.
2. Carryover data for 2004 not yet available.

Table 5. Total Diversion in Acre-feet

Irrigation Year	Ft. Hall	Falls ID	Minidoka ID	Burley ID	A&B ID	Milner ID	AFRD #2	North Side	Twin Falls
1980	30178	23495	500840	200874	50906	60903	476601	1099277	1077853
1981	28300	25100	459300	298400	57400	49600	330200	1088700	1144800
1982	30900	21600	464300	202600	45100	59400	435600	1034200	1014200
1983	23800	18100	400900	289800	46700	51300	430200	1055900	1055200
1984	32400	17400	431100	250700	43900	51600	455100	1013300	986000
1985	32500	20600	404000	293300	49000	63500	472100	1049200	1105000
1986	37500	20300	471000	214300	48200	60200	481700	1026000	1145100
1987	45300	22800	417820	298880	52200	65100	496600	1046100	1132000
1988	45600	28500	426837	279163	53800	66500	437600	976100	1056400
1989	45469	26449	412643	272828	54341	59227	467679	1066966	1134218
1990	46600	27400	422500	281300	59200	64700	489700	1141900	1187400
1991	35400	24800	377100	257800	54800	56800	457100	1069100	1142900
1992	44000	27500	377900	251900	62200	60100	377900	971200	981000
1993	26700	19100	329800	234800	49900	53100	388500	1083800	1056600
1994	40100	27900	375600	254600	58200	59300	429700	1125200	1066300
1995	28700	22300	314300	220200	50000	50700	405700	988200	1076100
1996	37300	25500	366200	246200	56600	59200	503300	1093700	1176600
1997	27700	22400	351700	243400	51500	59500	477500	1112200	1143500
1998	30200	23100	337400	224900	50800	53800	491300	1067300	1089400
1999	32200	24000	339800	237100	53500	55000	494300	1079800	1156900
2000	44000	27500	400000	280300	62600	67500	505300	1114200	1165400
2001	37600	25600	331800	262900	63200	64500	409700	729700	1012200
2002	37300	24900	349700	229300	57560	62200	394600	922400	1009100
2003	40400	25800	353200	249600	59500	60900	391600	961100	1046600
2004	37410	21056	314573	300832	50121	45945	296663	922639	1002861
Avg	35902	23728	389213	255039	53649	58423	439850	1033527	1086545
Min	23800	17400	314300	200874	43900	45945	296663	729700	981000

Notes:

1. All data taken from District 1 Watermaster reports.
2. 2004 data are provisional.
3. Storage allocation between Minidoka ID and Burley ID prior to 1989 estimated as 62% MID, 38% BID.
4. Space owned taken from provisional 2004 data.

Table 6. Irrigated Area in Acres

Irrigation Year	Ft. Hall	Falls ID	Minidoka ID	Burley ID	A&B ID	Milner ID	AFRD #2	North Side	Twin Falls
1980	14820	7870	72000	48000	14520	13470	63700	160000	202700
1981	14820	7870	72000	48000	14520	13470	63700	160000	202700
1982	14820	7870	72000	48000	14520	13470	63700	160000	202700
1983	14820	7870	72000	48000	14520	13470	63700	160000	202700
1984	14820	7870	72000	48000	14520	13470	63700	160000	202700
1985	14820	7870	72000	48000	14520	13470	63700	160000	202700
1986	14820	7870	72000	48000	14520	13470	63700	160000	202700
1987	14820	7870	72000	48000	14520	13470	63700	160000	202700
1988	14820	7870	72000	48000	14520	13470	63700	160000	202700
1989	14820	7870	72000	48000	14520	13470	63700	160000	202700
1990	14820	7870	72000	48000	14520	13470	63700	160000	202700
1991	14820	7870	72000	48000	14520	13470	63700	160000	202700
1992	14820	7870	72000	48000	14520	13470	63700	160000	202700
1993	14820	7870	72000	48000	14520	13470	63700	160000	202700
1994	14820	7870	72000	48000	14520	13470	63700	160000	202700
1995	14820	7870	72000	48000	14520	13470	63700	160000	202700
1996	14820	7870	72000	48000	14520	13470	63700	160000	202700
1997	14820	7870	72000	48000	14520	13470	63700	160000	202700
1998	14820	8910	77200	48000	14660	13640	63700	155790	201560
1999	14820	8910	77200	48000	14660	13640	63700	155790	201560
2000	14820	8910	77200	48000	14660	13640	63700	155790	201560
2001	14820	8910	77200	48000	14660	13640	63700	155790	201560
2002	14820	8910	77200	48000	14660	13640	63700	155790	201560
2003	14820	8910	77200	48000	14660	13640	63700	155790	201560

Table 7. Storage Used in Acre-feet

Irrigation Year	Ft. Hall	Falls ID	Minidoka ID	Burley ID	A&B ID	Milner ID	AFRD #2	North Side	Twin Falls
1980	26083	16543	154433	94653	34247	34575	250753	404199	86890
1981	25605	18280	257515	157831	42312	43403	314997	618745	186956
1982	10689	6581	45971	28176	14818	16229	130683	201444	29731
1983	11088	7464	32984	20216	17820	15086	164968	231985	29427
1984	14575	6288	5524	3385	17236	17649	153761	125837	23740
1985	27372	14511	156158	95709	34973	41169	265835	475401	152368
1986	19904	9220	32742	20067	22518	22487	185911	216712	33288
1987	43893	20021	209632	128484	46497	52151	355775	636184	159435
1988	45587	24693	224893	137838	47927	56550	373194	615930	175791
1989	45470	21599	174457	115339	43834	41467	351363	526264	110126
1990	46630	26265	223853	145054	56028	56133	404969	728202	202425
1991	35402	20547	182524	124756	46688	42935	368669	586254	175911
1992	43992	27487	269246	179497	62189	59389	374193	770672	206091
1993	18625	13321	95237	67840	34017	35104	268472	499415	127406
1994	39892	25478	251041	170169	52946	52605	362603	716917	228019
1995	20930	13016	91638	64414	27993	26121	222857	374246	180944
1996	21759	12464	97588	65603	29296	27994	265519	327247	137767
1997	11689	6204	21537	14904	14460	12648	175061	115850	16516
1998	15270	12271	90548	60365	28732	25359	254932	325333	79847
1999	21975	13743	65440	45664	28992	25878	263815	360136	44974
2000	42020	19830	175018	122632	44683	46246	360930	609599	182894
2001	37559	25522	285548	174272	61926	63135	382885	742000	201198
2002	37318	24939	206309	135262	58501	57144	376804	565505	153880
2003	40366	25317	223888	158174	58497	54887	377929	617566	255250
2004	37416	21057	219931	134797	50122	42946	297809	619697	121314

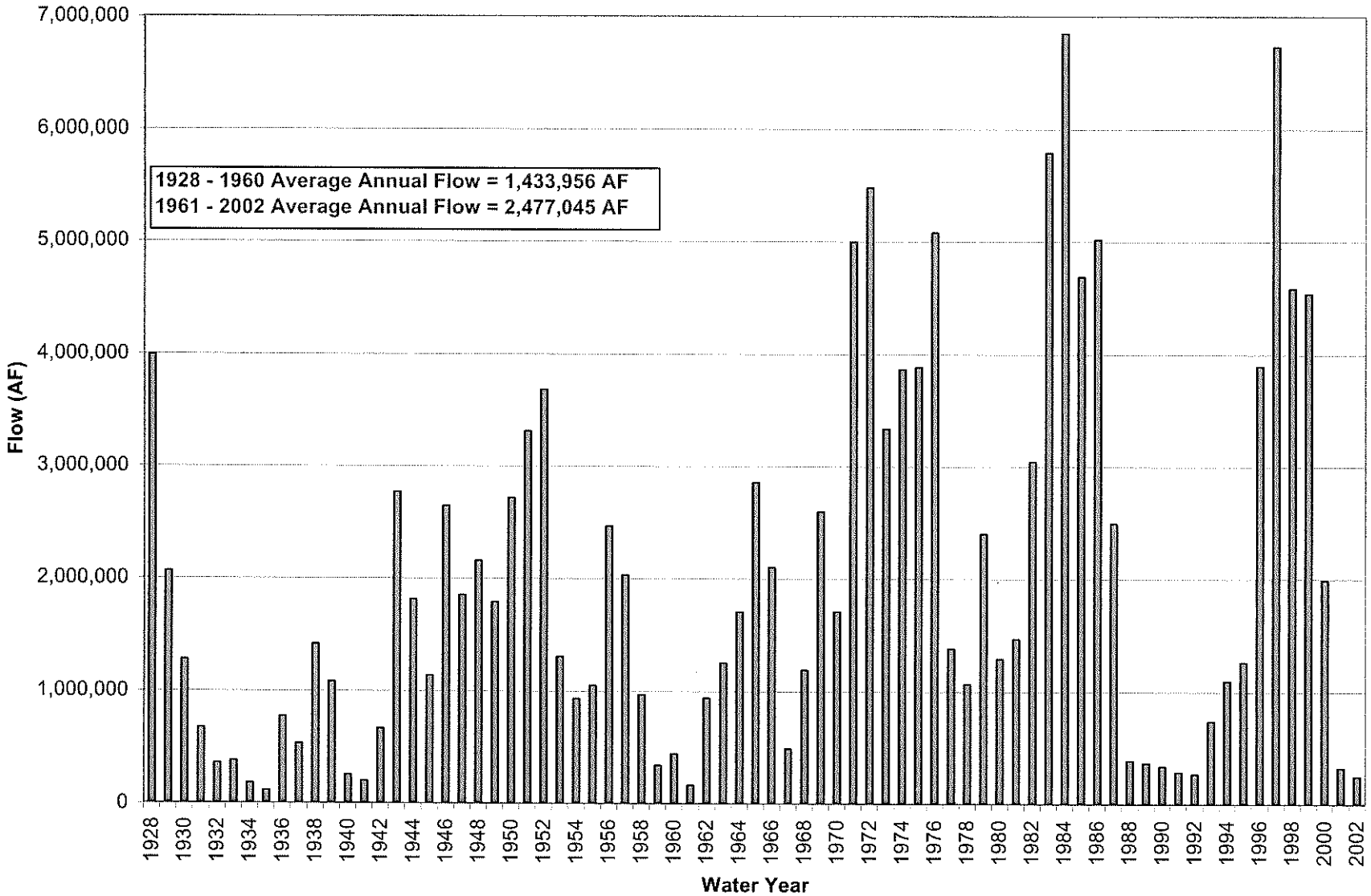
Notes:

1. Storage allocation between Minidoka ID and Burley ID prior to 1989 estimated as 62% MID, 38% BID.
2. Data for 2004 are provisional.

ATTACHMENT #5

Attachment 5

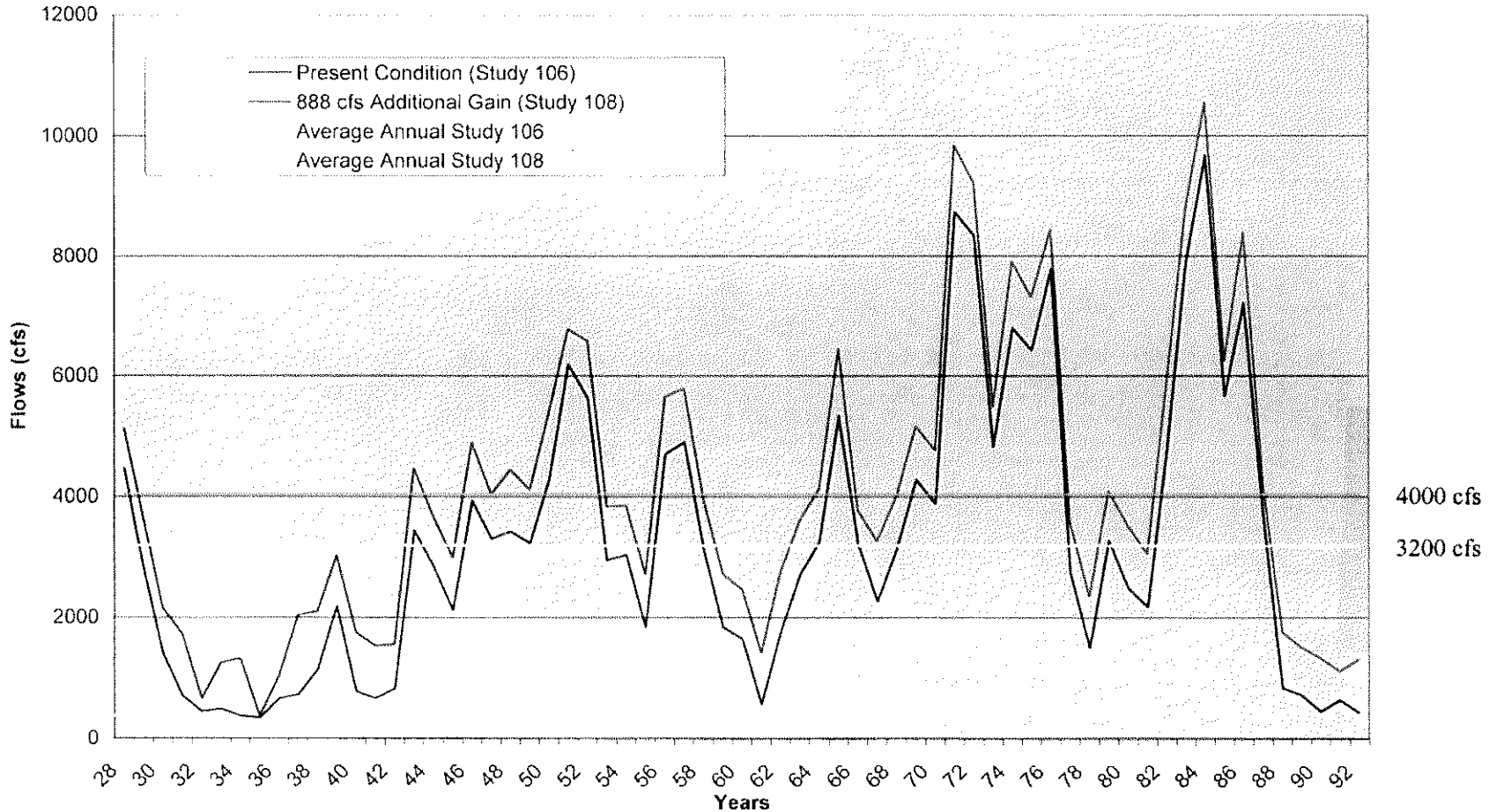
Total Annual Flow Below Milner in acre-feet (USGS gage 13088000)



ATTACHMENT #6

Attachment 6

Impact of Additional 888 cfs Gains in Snake River from Shelley to Milner on Average Annual Flows at Milner



ATTACHMENT #7

Figure 1: Potentially Usable Reach Gains from Long-Term Mitigation Measures, KAF

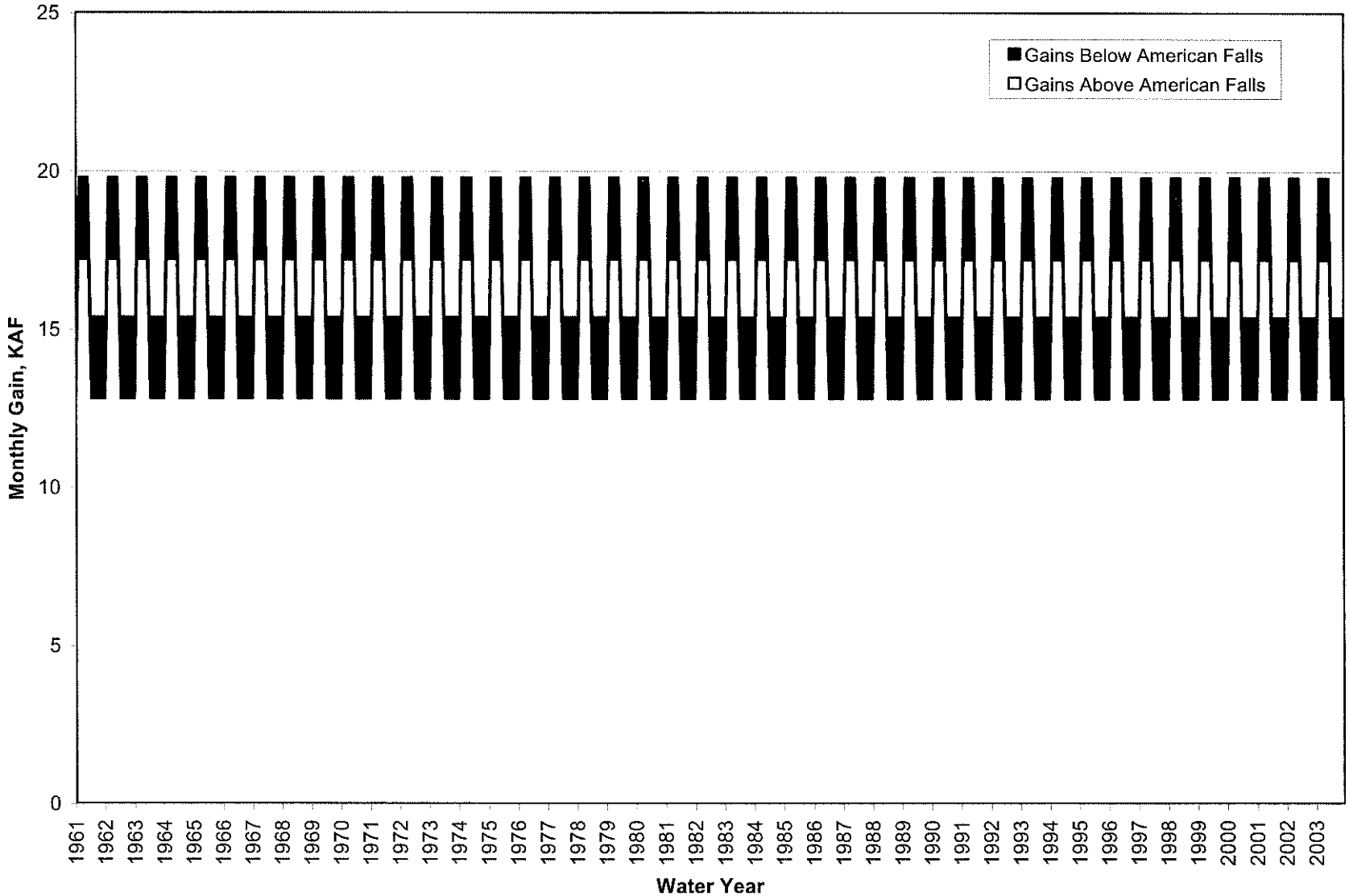


Figure 2: Assumed Diversion Shortages

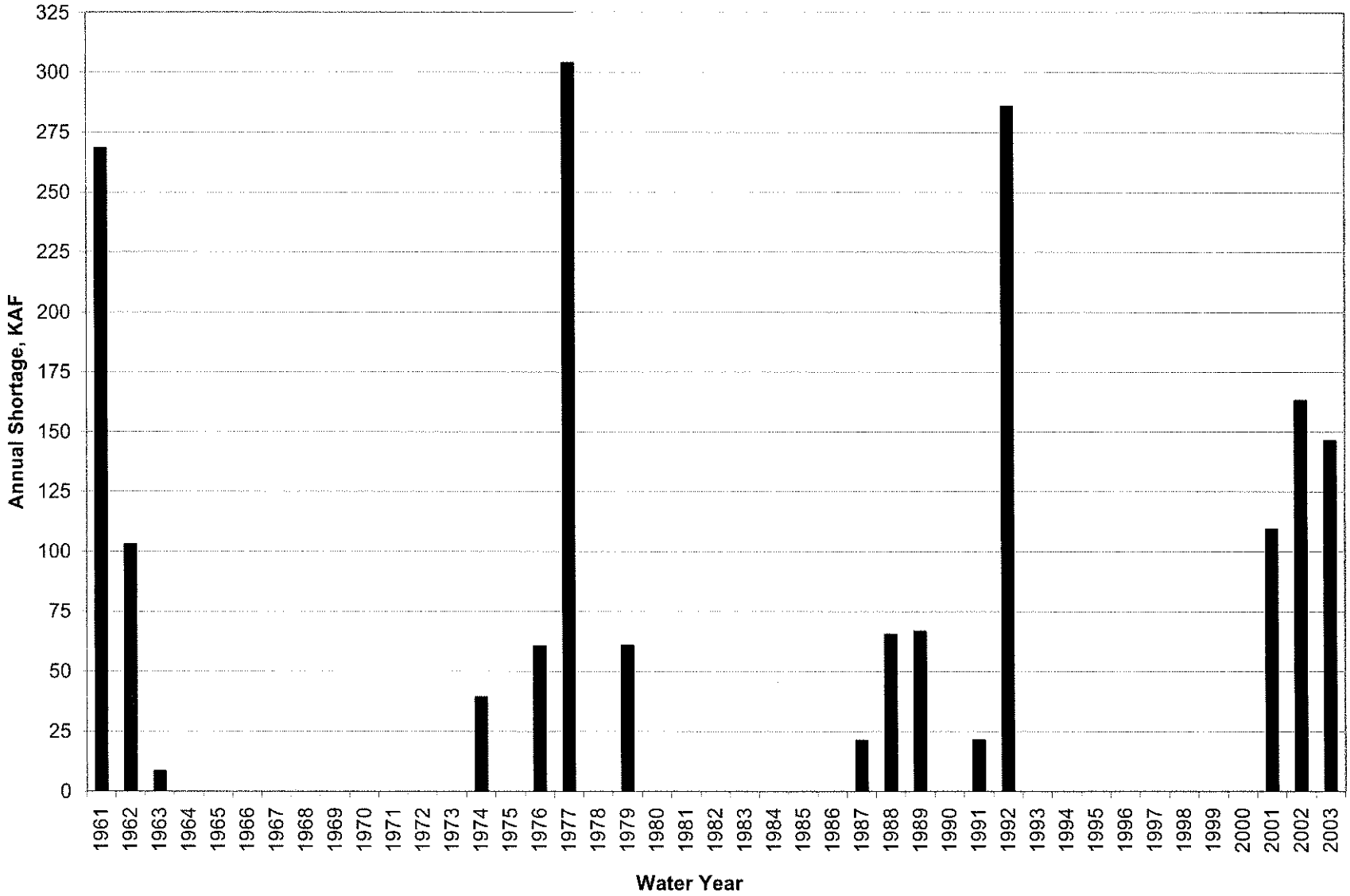


Figure 3: Additional Storage in American Falls Reservoir

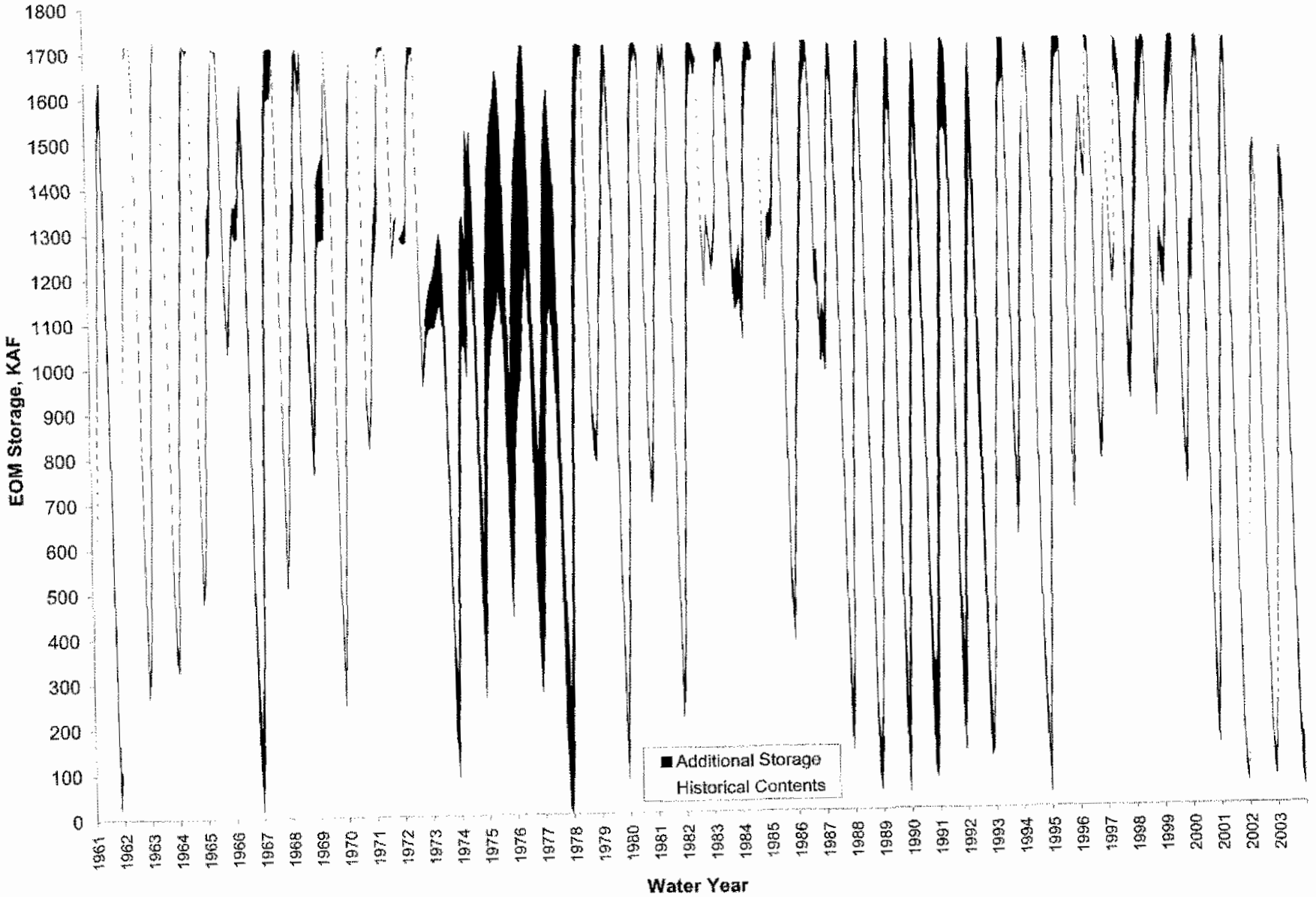


Figure 4: Additional Deliveries

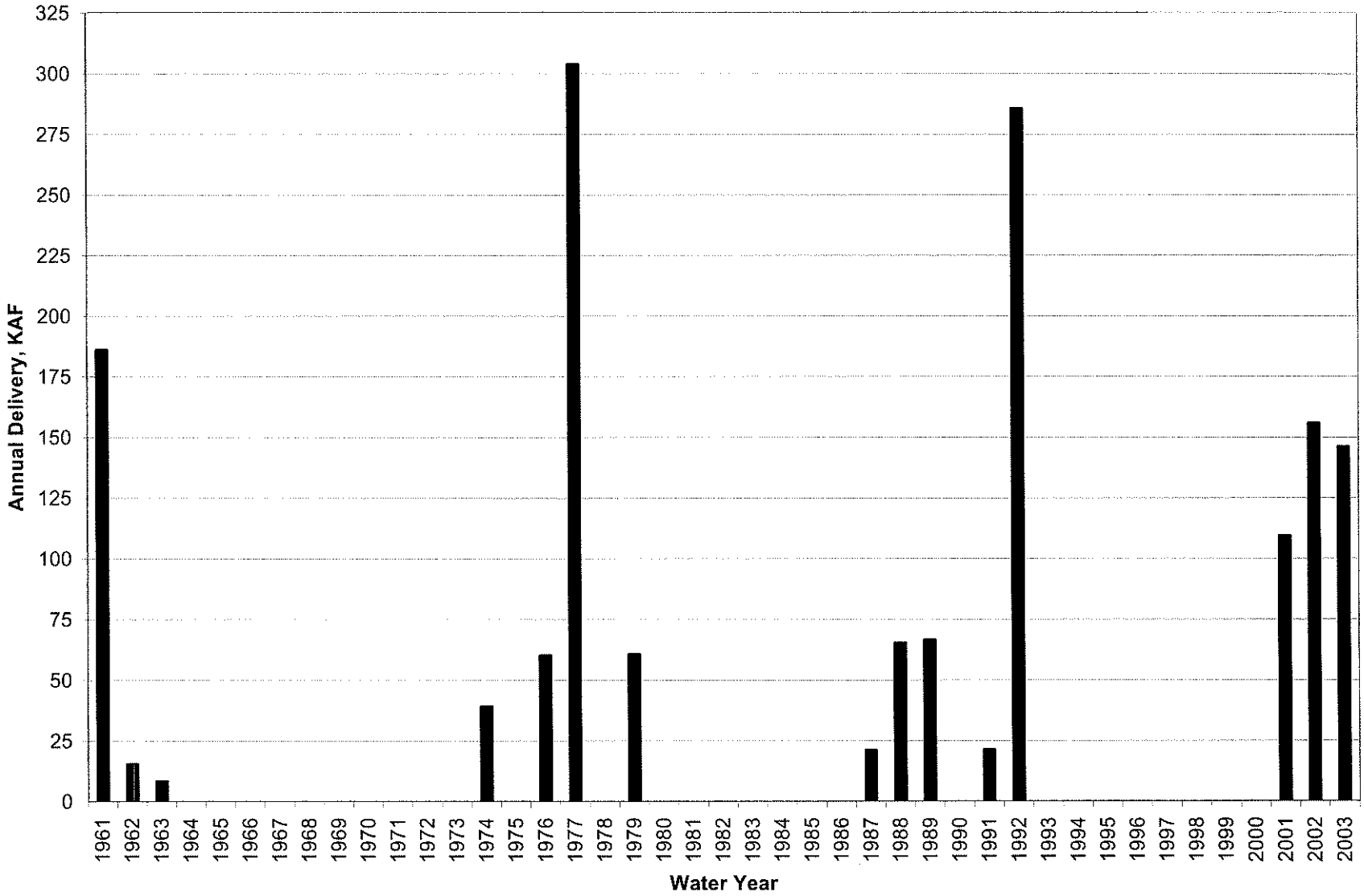


Figure 5: Remaining Shortage to be Met by Short-Term Delivery in Selected Years

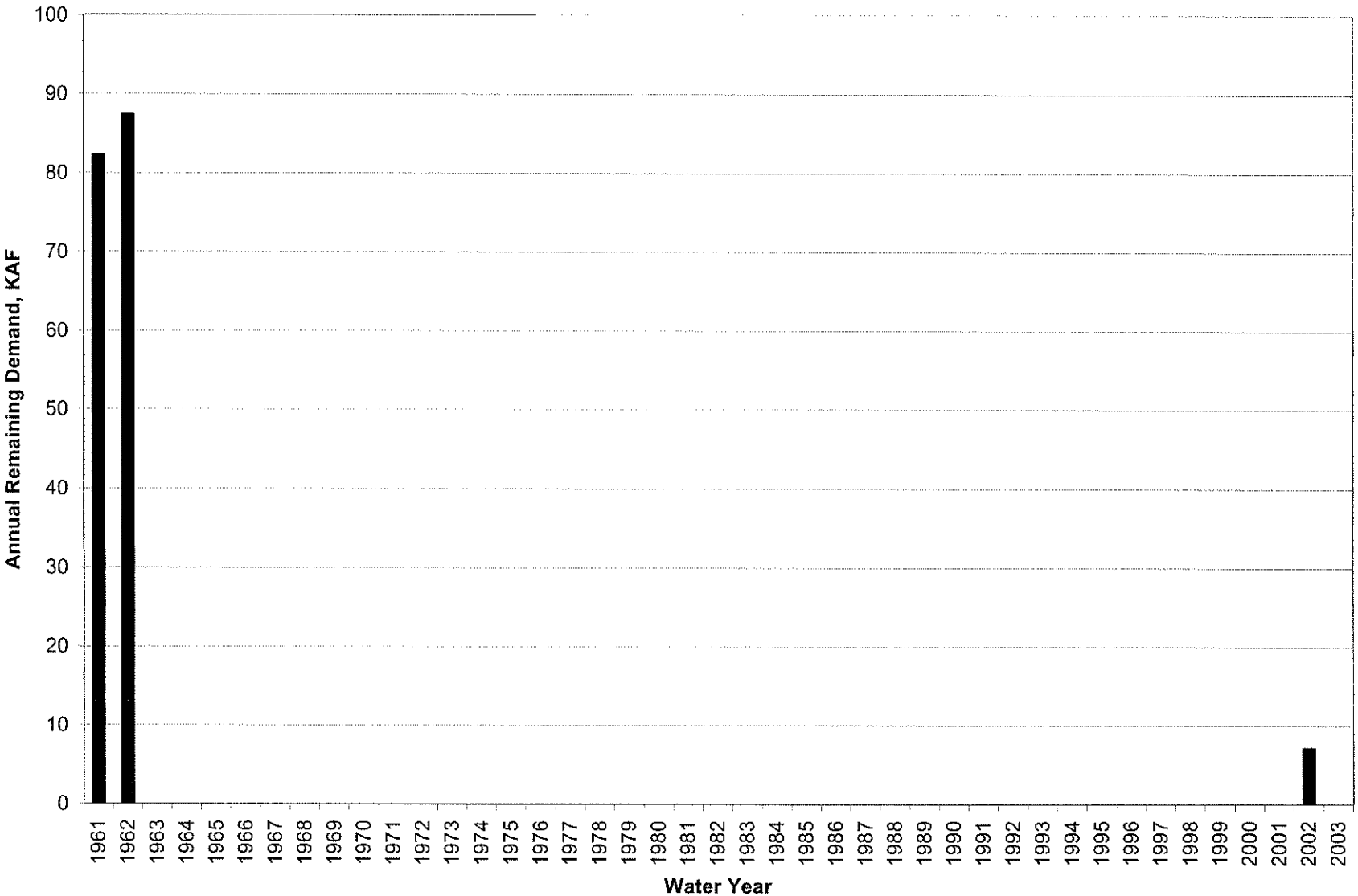


Figure 6: Spill Past Milner Dam