**BEFORE THE DEPARTMENT OF WATER RESOURCES**

**OF THE STATE OF IDAHO**

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| IN THE MATTER OF DISTRIBUTION OF WATER TO VARIOUS WATER RIGHTS HELD BY OR FOR THE BENEFIT OF A&B IRRIGATION DISTRICT, AMERICAN FALLS RESERVOIR DISTRICT #2, BURLEY IRRIGATION DISTRICT, MILNER IRRIGATION DISTRICT, MINIDOKA IRRIGATION DISTRICT, NORTH SIDE CANAL COMPANY, AND TWIN FALLS CANAL COMPANY<br><br>(Water Districts No. 120 and No. 130) | ) | **THIRD SUPPLEMENTAL ORDER AMENDING REPLACEMENT WATER REQUIREMENTS FINAL 2005 & ESTIMATED 2006** |

On April 19, 2005, the Director of the Department of Water Resources ("Director" or "Department") issued his order *In the Matter of Distribution of Water to Various Water Rights Held by or for the Benefit of A & B Irrigation District, American Falls Reservoir District #2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company, and Twin Falls Canal Company*. These entities, or members, are collectively referred to herein as the "Surface Water Coalition" or "Coalition." The Order of April 19, 2005 (herein referred to as the "April 19 Order"), was amended on May 2, 2005 (herein referred to as the "May 2 Order").

The May 2 Order included a determination that surface water rights held by or for the benefit of members of the Surface Water Coalition were reasonably likely to incur material injury in 2005 because of the diversion and consumptive uses of ground water under junior priority water rights. In response, the Director ordered ground water districts representing certain holders of junior priority ground water rights to provide replacement water pursuant to a plan submitted to the Department no later than April 29, 2005, or curtailment based on the priorities of the rights would be required to the extent mitigation for out-of-priority depletions was not provided.

In determining that senior priority water rights were reasonably likely to incur material injury, the Director found that "[w]hether effects of ground water depletions result in material injury to the senior priority surface water rights held by the members of the Surface Water Coalition in a particular year depends in large part on the total water supply, under natural flow water rights and from reservoir storage, and in some instances supplemental ground water rights, otherwise available to each member of the Coalition in that year." *May 2 Order* at p. 19, Finding 88.

Findings in the May 2 Order set forth the following process for determining the extent that senior surface water rights held by or for the benefit of members of the Surface Water Coalition would be reasonably likely to incur material injury in 2005:

(1) Determine the minimum full water supply needed for irrigation (natural flow and reservoir storage releases) by the members of the Surface Water Coalition[1];

(2) Compare the forecast as of April 1, 2005, for unregulated inflow from the Upper Snake River Basin for the time period of April 1, 2005, through July 31, 2005, with historic unregulated inflow from the Upper Snake River Basin for the period of April 1 through July 31;

(3) Select a year or years of similar unregulated inflow and assume that: (a) natural flow diversions in 2005 will be essentially the same as the natural flow diversions in the similar year(s); (b) water stored in the reservoirs after April 1 in the similar year(s) added to the volume actually stored as of April 1, 2005, adjusted for evaporation, will be the total reservoir storage available for release and use in 2005; and (c) the sum of the predicted natural flow diversions and the predicted reservoir storage, adjusted for evaporation, constitutes the "the predicted 2005 water supply"; and

(4) For each member of the Surface Water Coalition, subtract the predicted total water supply for 2005 from the minimum full water supply needed, and to the remainder[2] add the amount of carryover storage reasonably needed assuming a drought year in 2006, unless the remainder is negative and the value equals or exceeds the reasonably needed carryover storage. The extent of the material injury predicted, or presumed, for each member of the Surface Water Coalition equaled the sum of predicted shortage from the minimum full water supply, if any, and the amount of predicted short fall in carryover storage, if any.

(5) Provide a procedural framework under which the water supply needed by each member of the Surface Water Coalition could be increased above the minimum full supply assumed to be needed, up to the limits of the water

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[1] Water rights held by or for the benefit of members of the Surface Water Coalition entitle the diversion of up to the full quantities of water authorized by the respective rights when needed for the full beneficial use defined under the rights. For a variety of reasons (e.g., cropping patterns, changes in irrigation methods, reductions in irrigated acreage, weather, etc.) the full quantities of water authorized by the respective rights are often not needed, and junior priority rights are not subject to curtailment to provide for the differences, if any, between the maximum quantities of water authorized by the rights and the lesser quantities of water actually needed. The Director determined that 1995 was the most recent year that the members of the Surface Water Coalition received a water supply sufficient for the beneficial uses made under the respective rights and, based on available information, used the amounts of water diverted during the 1995 irrigation season as measures of the quantities of water needed for current conditions (herein termed "minimum full water supply"), while recognizing that amounts of water up to the maximum quantities authorized by the water rights held by or for the benefit of the Coalition could be demanded upon a showing of need. To date, the Surface Water Coalition has not shown such need.

[2] Negative remainder indicates water in excess of minimum needed without consideration of reasonable carryover storage needed for the following year. Positive remainder indicates shortage from minimum needed without consideration of reasonable carryover storage needed for the following year.

> rights held by or for the benefit of members of the Coalition, or decreased from the minimum full supply assumed to be needed, based on actual climatic and water supply conditions for 2005, and the extent of material injury correspondingly adjusted.

In Finding 100 of the May 2 Order, the Director determined that:

> The joint operating forecast prepared by the USBR [United States Bureau of Reclamation] and the USACE [United States Army Corps of Engineers] for unregulated inflow from the Upper Snake River Basin predicted for the Heise Gage for the period April 1 through July 31 . . . predicts an unregulated inflow of 2,340,000 acre-feet. . . . [T]he predicted inflow is similar to the measured, unregulated inflows at the Heise Gage for two recent years in the present sequence of drought years, 2002 and 2004.

For each member of the Surface Water Coalition, the Director (1) averaged the 2002 and 2004 natural flow diversions; (2) estimated the 2005 storage allocation based on the average of the volume of water stored after April 1, 2002, and after April 1, 2004, added to the volume of water actually in storage on April 1, 2005, less estimated 2005 evaporation; and (3) summed the average natural flow diversions and estimated 2005 storage allocations. The sum of natural flow diversions averaged for 2002 and 2004 and the estimated 2005 storage allocations based on the actual storage as of April 1, 2005, and the storage after April 1 averaged for 2002 and 2004 was deemed the predicted 2005 water supply for each Surface Water Coalition member.

For each Surface Water Coalition member, the predicted 2005 water supply was subtracted from the water supply in 1995, which was deemed the minimum full water supply needed. If the difference was greater than zero, the difference was the "Predicted Shortage in 2005." The total predicted shortage for 2005 for the members of the Surface Water Coalition that were predicted to incur shortages was 27,700 acre-feet.

Finding 119 of the May 2 Order established a reasonable amount of carryover storage at the end of 2005 for each member of the Surface Water Coalition "by averaging (1) the amounts of carryover storage required for Coalition members to have full supplies of water in 2006 if the divertible natural flow and storage accruals in 2006 are the same as in 2002 and (2) the amounts of carryover storage required for Coalition members to have full supplies of water in 2006 if the divertible natural flow and storage accruals in 2006 are the same as in 2004."

The "Predicted 2005 Material Injury" for each member of the Surface Water Coalition was determined by summing the "Predicted Shortage in 2005," if any, and the amount, if any, that the predicted carryover storage at the end of 2005 was less than the reasonable carryover storage determined in Finding 119 of the May 2 Order. The total "Predicted 2005 Material Injury" for all of the members of the Surface Water Coalition, computed by summing the predicted injury for each of the members, was 133,400 acre-feet, 101,000 acre-feet of which was determined to be caused by the diversion and consumptive use of ground water under junior priority rights in Water District No. 120 and No. 130 based on simulations using version 1.0 of the Department's ground water model for the Eastern Snake Plain Aquifer ("ESPA").

Following issuance of the April 19 Order, the Idaho Ground Water Appropriators, Inc. ("IGWA") submitted its initial plan for providing replacement water on April 29, 2005. The

Director ordered that IGWA submit additional information, and IGWA submitted the required additional information on May 23 and June 3, 2005. The collective information submitted by IGWA will be referred to hereafter as "IGWA's Replacement Water Plan." On June 13, 2005, IGWA filed *IGWA's Motion to Reduce Replacement Water Obligation.* On June 24, 2005, the Director issued his *Order Approving IGWA's Replacement Water Plan* (referred to hereafter as the "June 24 Approval Order").

IGWA's Replacement Water Plan, approved by the June 24 Approval Order, committed at least 27,700 acre-feet as replacement water for the Predicted Shortage in 2005.

The Director stated in the May 2 Order at page 47, paragraph 10:

> The Director will monitor water supply requirements and the water supplies available throughout the irrigation season and may issue additional orders or instructions to the watermasters as conditions warrant.

Based upon the Director's consideration of changes in the water supplies available for the 2005 irrigation season following prolific low-elevation rains during May and June, the Director issued his *Supplemental Order Amending Replacement Water Requirements* on July 22, 2005 (herein referred to as the "July 22 Order"). On August 5, 2005, IGWA filed *IGWA's Petition for Reconsideration of the July 22, 2005 Supplemental Order Amending Replacement Water Requirements.* On November 21, 2005, Twin Falls Canal Company, a member of the Surface Water Coalition, filed *Request for End of the Year Accounting.*

Based upon the Director's consideration of IGWA's petition for reconsideration and preliminary diversion data following the 2005 irrigation season, the Director issued his *Second Supplemental Order Amending Replacement Water Requirements* on December 27, 2005 (herein referred to as the "December 27 Order"). Paragraph 4 of the December 27 Order at page 16 stated in pertinent part:

> Because IGWA, on behalf of the ground water districts representing holders of the affected junior-priority ground water rights, only provided replacement water in 2005 through incremental increases in reach gains resulting from the lease and non-use of water rights held by FMC Idaho, LLC, the non-irrigation of leased lands, and mitigation actions implemented in Water District No. 130, IGWA shall provide the Twin Falls Canal Company with the remainder of the 27,700 acre-feet of minimum replacement water that was required in 2005, that was not provided from incremental increases in reach gains, plus an additional 18,340 acre-feet of replacement water at the beginning of the irrigation season in 2006 (March 15), subject to the final determination of 2005 material injury.

On January 25, 2006, the Surface Water Coalition, IGWA, and the City of Pocatello filed a joint *Stipulated Motion for Entrance of Protective Order* seeking a stay in the proceedings "for a period of sixty (60) days from the date of this Order for purposes of allowing the parties to investigate settlement." In response, the Director issued *Order Staying Proceedings and Amended Scheduling Order* on February 10, 2006, staying the proceedings in this matter for 60 days, including a 60-day stay of the requirement that IGWA provide replacement water to the

Twin Falls Canal Company by March 15, 2006. Therefore, IGWA's obligation to provide replacement water was postponed until May 15, 2006.

While on June, 2, 2006, Judge Barry Wood of the Fifth Judicial District of the State of Idaho issued his *Order on Plaintiffs' Motion for Summary Judgment* (American Falls Reservoir District #2 et al. v. The Idaho Department of Water Resources and Karl J. Dreher in his official capacity as Director, Case No. CV-2005-0000600), no judgment has been issued in that proceeding, as of the issuance of this present order. In the absence of a judgment in Case No. CV-2005-0000600, it is not possible at this time to anticipate whether and how such judgment may affect this proceeding.

Based on the final 2005 water rights accounting for Water District 01, in which water is distributed to the water rights held by or for the benefit of members of the Surface Water Coalition, the joint operating forecast prepared by the USBR and the USACE for unregulated inflow in 2006 from the Upper Snake River Basin predicted for the Heise Gage for the period April 1 through July 31, and the preliminary 2006 storage allocations for members of the Surface Water Coalition, the Director enters the following Findings of Fact, Conclusions of Law, and Order, which supercede the *Second Supplemental Order Amending Replacement Water Requirements* of December 27, 2005.

## FINDINGS OF FACT

**Final Determination of Presumed Injury for 2005**

1. The total shortage "predicted" for 2005 for the members of the Surface Water Coalition in the May 2 Order was 27,700 acre-feet. When combined with the "Reasonable Carryover" storage determined in the May 2 Order, the total "Predicted 2005 Material Injury" for members of the Surface Water Coalition was 133,400 acre-feet, 101,000 acre-feet of which was determined to be caused by the diversion and consumptive use of ground water under junior priority rights in Water District No. 120 and No. 130.

2. The May 2 Order required that holders of certain junior priority ground water rights within Water District No. 120 and No. 130 either curtail the diversion and use of ground water for 2005, provide replacement water to the members of the Surface Water Coalition on an annual basis in amounts and generally at times at least equal to the increase in reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage that would result from curtailment based on simulations using the Department's ground water model for the ESPA (until reservoir storage space held by members of the Coalition refilled), or a combination of both.

3. Absent curtailment of junior ground water rights within Water District No. 120 and No. 130 by priority date, the minimum amount of replacement water required in 2005 by the May 2 Order was 27,700 acre-feet.

4. Following issuance of the May 2 Order, precipitation in May and June of 2005 was unusually high. In May of 2005, widespread areas in the Upper Snake River Basin received

near or above 150 percent of the long-term average precipitation for May; with several locations receiving near or above 200 percent of average, and one location, 46 miles west of Idaho Falls, receiving more than 275 percent of average. In June of 2005, widespread areas in the Upper Snake River Basin received well above 150 percent of the long-term average precipitation for June; with several locations reportedly receiving near or above 250 percent of average, and one location, Ashton, receiving just above 400 percent of average. *Natural Resources Conservation Service, U. S. Department of Agriculture (ftp://ftp.wcc.nrcs.usda.gov/data/climate/basin_reports/idaho/wy2005/baprid5.txt and ftp://ftp.wcc.nrcs.usda.gov/data/climate/basin_reports/idaho/wy2005/baprid6.txt)* (sites last visited June 28, 2006).

5. Along with some increase in snow accumulation and increased streamflows in the Upper Snake River Basin, the unusually high precipitation, coupled with cool temperatures in May and June, resulted in significant delay in irrigation demands for natural flow. Through about June 30, 2005, members of the Surface Water Coalition had limited needs to divert water for irrigation, and those limited needs were satisfied with the available natural flow and some small releases from reservoir storage in May and June.

6. The unusually high precipitation and cool temperatures in May and June, and the resulting delay in irrigation demands, also allowed runoff from the melting snow accumulation to be stored in Upper Snake River Basin reservoirs that under normal conditions would have been diverted for irrigation, benefiting space holders in those reservoirs, including members of the Surface Water Coalition in relation to the storage space held.

7. On June 30, 2005, maximum storage in the Upper Snake River Basin reservoirs had accrued. Final accounting on March 10, 2006, showed Jackson, Walcott, American Falls, and the Palisades winter-water-savings accounts had filled to 100 percent. Henrys Lake had a total fill of 38,424 acre-feet (42.7 percent), Island Park and Grassy Lake, combined, had a fill of 143,115 acre-feet (95.3 percent), the Palisades 1939 water right had a fill of 427,609 acre-feet (45.5 percent), and Ririe had filled 2,575 acre-feet (3.2 percent). These reservoir fills included carryover storage from the 2004 irrigation season.

8. On March 10, 2006, the final storage accruals for the benefit of the members of the Surface Water Coalition and reservoir evaporation were determined by Water District 01 as set forth on the following page:

| | 2005 Max. Storage (acre-feet) | 2005 Evap. (acre-feet) | Final 2005 Net Storage (acre-feet) |
|---|---|---|---|
| Jackson Lake: | 847,000 | 21,000 | 826,000 |
| Palisades Winter Water Savings: | 259,600 | 6,500 | 253,100 |
| Other Palisades Reservoir: | 427,600 | 10,600 | 417,000 |
| Henrys Lake: | 38,400 | 1,000 | 37,400 |
| Island Park Res. & Grassy Lake: | 143,100[3] | 3,600[3] | 139,500[3] |
| Ririe Reservoir: | 2,600 | 100 | 2,500 |
| Amer. Falls Winter Water Sav.: | 156,800 | 3,900 | 152,900 |
| Other American Falls: | 1,515,800 | 37,700 | 1,478,100 |
| Lake Walcott: | 95,200 | 2,400 | 92,800 |
| Totals: | 3,486,100 | 86,800 | 3,399,300 |

*http://www.waterdistrict1.com/2005%20WD01%20Storage%20Report.pdf* (last visited June 28, 2006).

9. Using the Department's accounting program for storage, Water District 01 determined the final 2005 storage allocations on March 10, 2006, for the members of the Surface Water Coalition as follows:

| | Final 2005 Storage Allocations (acre-feet) |
|---|---|
| A&B Irrigation District: | 77,200 |
| American Falls Res. Dist. #2: | 383,800 |
| Burley Irrigation District: | 220,900 |
| Milner Irrigation District: | 65,900 |
| Minidoka Irrigation District: | 340,700 |
| North Side Canal Company: | 838,550 |
| Twin Falls Canal Company: | 239,800 |

10. Using the Department's water rights accounting program, Water District 01 determined the following final diversions of surface water from the Snake River by members of the Surface Water Coalition as of the end of the 2005 irrigation season (October 31, 2005) on March 22, 2006, as follows:

[3] Grassy Lake included in Island Park storage and evaporation.

| | Final 2005 Natural Flow (acre-feet) | Final 2005 Storage (acre-feet) | Final Total 2005 Diversions (acre-feet) | Minimum Full Supply Needed[1] (acre-feet) |
|---|---|---|---|---|
| A&B Irrigation District: | 7,400 | 39,500 | 46,900 | 50,000 |
| American Falls Res. Dist. #2: | 111,200 | 284,500 | 395,700 | 405,600 |
| Burley Irrigation District: | 87,200 | 137,400 | 224,600[4] | 220,200[5] |
| Milner Irrigation District: | 11,100 | 36,100 | 47,200 | 50,800 |
| Minidoka Irrigation District: | 119,400 | 188,200 | 307,600[6] | 314,300[7] |
| North Side Canal Company: | 383,650 | 514,250 | 897,900 | 988,200 |
| Twin Falls Canal Company: | 740,400 | 177,600 | 918,000 | 1,075,900 |

11. The final total 2005 diversions set forth in Finding 10 are less than the minimum full supply needed by each member of the Surface Water Coalition as set forth in Finding 116 of the May 2 Order and Finding 10 above, with the noted adjustments to the full supply amounts between Burley and Minidoka irrigation districts, except for the Burley Irrigation District.

12. The fact that members of the Surface Water Coalition generally diverted less water in 2005 than the minimum full supply determined to be needed indicates that either not as much water was generally needed by members of the Coalition in 2005, given the unusually high precipitation and cooler than normal temperatures in May and June, or members of the Coalition sought to conserve available storage water out of concern that supplies might not be adequate given the above normal temperatures and below normal precipitation in the forecast released on July 21, 2005, by the National Weather Service Climate Prediction Center for the months of August, September, and October. Generally, water not diverted during the irrigation season would be stored or remain in storage if previously diverted to storage, either of which would increase the storage available to reservoir storage spaceholders in the Upper Snake River Basin, including members of the Surface Water Coalition.

13. Determination of the presumed material injury[8] in 2005 to rights held by or for the benefit of members of the Surface Water Coalition resulting from depletions to the Snake River caused by the diversion and use of ground water under junior priority water rights, if any, can not be based solely on the quantities of water diverted but must also take into account the amounts of carryover storage for the various members of the Coalition.

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[4] 42.2 percent of total Minidoka Project diversions.

[5] 41.2 percent of total Minidoka Project diversions for the 1995 irrigation year from Water District 01 report.

[6] 57.8 percent of total Minidoka Project diversions.

[7] 58.8 percent of total Minidoka Project diversions for the 1995 irrigation year from Water District 01 report.

[8] The material injury presumed by the Director was based on available information, and the amount of water corresponding to the injury was presumed to be needed in 2005 and subsequent years. During the proceedings, members of the Surface Water Coalition or the holders of affected junior priority ground water rights have the opportunity to demonstrate that more or less water is needed than the minimum full supply determined by Director and the actual material injury is more or less than presumed.

14. Based on the final storage allocations set forth in Finding 9, the final amounts of storage water diverted set forth in Finding 10, and rental pool or other adjustments documented in the storage report dated March 10, 2006, resulting from the Department's accounting program for storage, the following are the final amounts of carryover storage at the end of the 2005 irrigation season:

| | Final 2005 Storage Alloc. (acre-feet) | Final 2005 Storage Used (acre-feet) | Final 2005 Rental/Adjust. (acre-feet) | Final 2005 Carryover Storage (acre-feet) |
|---|---|---|---|---|
| A&B Irrigation District: | 77,200 | 39,500 | (1,000) | 36,700 |
| American Falls Res. Dist. #2: | 383,800 | 284,500 | (200) | 99,100 |
| Burley Irrigation District: | 220,900 | 137,400 | 6,700 | 90,200 |
| Milner Irrigation District: | 65,900 | 36,000 | 7,700 | 37,600 |
| Minidoka Irrigation District: | 340,700 | 188,200 | (1,900) | 150,600 |
| North Side Canal Company: | 838,550 | 514,250 | 40,700 | 365,000 |
| Twin Falls Canal Company: | 239,800 | 177,600 | 6,200 | 68,400 |

15. The final 2005 presumed material injury[8], if any, for members of the Surface Water Coalition is determined by subtracting the sum of the total 2005 diversions (set forth in Finding 10 above) and the preliminary carryover storage (set forth in Finding 14 above) from the sum of the minimum full water supply needed (set forth in Finding 10 above) and the reasonable carryover storage (set forth in Finding 119 of the May 2 Order). The final 2005 presumed material injury, if any, for members of the Coalition is set forth on the following page:

| | Minimum Full Supply Needed[1] (acre-feet) | Reasonable Carryover (acre-feet) | Final Total 2005 Diversions (acre-feet) | Final 2005 Carryover (acre-feet) |
|---|---|---|---|---|
| A&B Irrigation District: | 50,000 | 8,500 | 46,900 | 36,700 |
| American Falls Res. Dist. #2: | 405,600 | 51,200 | 395,700 | 99,100 |
| Burley Irrigation District: | 220,200[4] | 0 | 224,600 | 90,200 |
| Milner Irrigation District: | 50,800 | 7,200 | 47,200 | 37,600 |
| Minidoka Irrigation District: | 314,300[6] | 0 | 307,600 | 150,600 |
| North Side Canal Company: | 988,200 | 83,300 | 897,900 | 365,000 |
| Twin Falls Canal Company: | 1,075,900 | 38,400 | 918,000 | 68,400 |

| | Minimum Full Supply Needed + Reas. Carryover (acre-feet) | Final Total 2005 Diversions + Carryover (acre-feet) | Final 2005 Shortages and Material Injury (- *is surplus*, no shortage) (acre-feet) |
|---|---|---|---|
| A&B Irrigation District: | 58,500 | 83,600 | *- 25,100* |
| American Falls Res. Dist. #2: | 456,800 | 494,800 | *- 38,000* |
| Burley Irrigation District: | 220,200 | 314,800 | *- 94,600* |
| Milner Irrigation District: | 58,000 | 84,800 | *- 26,800* |
| Minidoka Irrigation District: | 314,300 | 458,200 | *-143,900* |
| North Side Canal Company: | 1,071,500 | 1,262,900 | *-191,400* |
| Twin Falls Canal Company: | 1,114,300 | 986,400 | 127,900 |

16. The final presumed material injury of 127,900 acre-feet is 4 percent less than the total material injury of 133,400 acre-feet predicted to be likely in the May 2 Order. Given the climate variability anticipated in the May 2 Order and the assumptions that are necessary to predict reasonably likely material injury in advance of the major portion of an irrigation season, a deviation of 4 percent is reasonable.

17. Of the members of the Surface Water Coalition, only the Twin Falls Canal Company had material injury in 2005; presumably, 127,900 acre-feet. There are two primary reasons for this outcome. First, only about 22 percent of the minimum full supply determined for the Twin Falls Canal Company (1,075,900 acre-feet) is derived from storage when Twin Falls receives a full storage water allocation. Thus, the benefit derived by the Twin Falls Canal Company from the unanticipated and enhanced storage allocations following the unprecedented precipitation in May and June of 2005 was significantly less than for other members of the Surface Water Coalition who receive a greater portion of their overall water supply from storage. Secondly, the reach gains to the Snake River, upon which the Twin Falls Canal Company depends to supply water to its natural flow water rights, between the Near Blackfoot Gage and the Neeley Gage were diminished in 2005 as compared to reach gains in 1995. Average storage diversions by the Twin Falls Canal Company in August and September of 2005 were 69 percent and 35 percent, respectively, as compared to average storage diversions in 1995, presumably to conserve carryover storage.

**Simulated Curtailment of Junior Priority Ground Water Rights**

18. Nearly all ground water rights authorizing the diversion and use of ground water from the ESPA are junior in priority to the surface water rights held by or for the benefit of the Surface Water Coalition. Based on simulations using version 1.1 of the Department's ground water model for the ESPA, using the average annual consumptive use for irrigation beginning in 1980 through 2001, curtailing all ground water diversions within the current boundaries of Water District No. 120 would, over time, increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 425,700 acre-feet for each year of curtailment, which equals 65 percent of the total average annual ground water depletions in Water District No. 120. Curtailing all ground water rights in Water District No. 130 would, over time, increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 200,200 acre-feet for each year of curtailment, which equals 35 percent of the total average annual ground water depletions in Water District No. 130. Curtailing all ground water diversions in Water District No. 120 and No. 130 for just one year would, over time, increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 625,900 acre-feet, which is nearly five times the presumed material injury determined to have occurred in 2005 to the water rights held by or for the benefit of the Surface Water Coalition members.

19. Based on the Department's water rights data base and version 1.1 of the ground water model for the ESPA, curtailing all ground water diversions, which at steady-state conditions reduce reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by more than 10 percent of the amount of depletion to the ESPA resulting from those ground water diversions (10 percent is the uncertainty in model simulations, *see* Finding 30 of May 2 Order), within the modeled area for one year under water rights having priority dates of May 23, 1979, and later would increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 127,900 acre-feet, over time.

20. Based on the Department's water rights data base and version 1.1 of the ground water model for the ESPA, curtailing the subset of ground water diversions for one year under water rights described in Finding 19 within the area defined as the area of common ground water supply for the ESPA in Rule 50 of the Conjunctive Management Rules (IDAPA 37.03.11.050.01) would increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by a total amount of 119,100 acre-feet, over time.

21. Based on the Department's water rights data base and version 1.1 of the ground water model for the ESPA, curtailing the subset of ground water diversions for one year under water rights described in Finding 19 within Water District No. 120 and No. 130, which are wholly within the area of common ground water supply for the ESPA defined in Rule 50 of the Conjunctive Management Rules (IDAPA 37.03.11.050.01) would result in the curtailment of irrigation of 55,700 equivalent[9] acres and 21,500 equivalent acres, respectively, and would

[9] For the ESPA ground water model, an algorithm is used to simulate the effects of supplemental ground water irrigation where surface water is deliverable for some portion of the irrigation of those lands. For each model cell, acreages simulated to be irrigated with both surface water and supplemental ground water are replaced with acreages simulated to be irrigated using all ground water such that the simulated consumptive use on the

increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage by 76,300 acre-feet and 20,400 acre-feet, respectively, over time. The number of acres on which irrigation would be curtailed in Water District No. 120 and No. 130 total 77,200 equivalent acres, and the total amount of the simulated increase in reach gains over time between the Near Blackfoot Gage and the Minidoka Gage from curtailment in Water District No. 120 and No. 130 is 96,700 acre-feet.

22. Based on the Department's water rights data base and version 1.1 of the ground water model for the ESPA, curtailing the subset of ground water diversions for one year under water rights described in Finding 19 within the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, and Bonneville-Jefferson ground water districts, using the most recent boundaries of the districts provided to the Department, within the area of common ground water supply for the ESPA defined in Rule 50 of the Conjunctive Management Rules (IDAPA 37.03.11.050.01) would result in the curtailment of irrigation on the following equivalent acreages and increase reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage over time by the following amounts:

| | Acres Curtailed | Total Accruals (acre-feet) | 1st 6-month Accruals (acre-feet) | 2nd 6-month Accruals (acre-feet) | 3rd 6-month Accruals (acre-feet) |
|---|---|---|---|---|---|
| North Snake District: | 3,890 | 2,130 | 0 | 0 | 10 |
| Magic Valley District: | 16,930 | 17,780 | 30 | 240 | 490 |
| Aberdeen-Amer. Falls District: | 32,430 | 49,900 | 14,060 | 13,600 | 5,710 |
| Bingham District: | 11,650 | 14,370 | 3,260 | 3,700 | 1,700 |
| Bonneville-Jefferson District: | 8,050 | 6,700 | 210 | 840 | 860 |
| Totals: | 72,950 | 90,880 | 17,560 | 18,380 | 8,770 |

| | 4th 6-month Accruals (acre-feet) | 5th 6-month Accruals (acre-feet) | 6th 6-month Accruals (acre-feet) | 7th 6-month Accruals (acre-feet) | 8th 6-month Accruals (acre-feet) |
|---|---|---|---|---|---|
| North Snake District: | 30 | 40 | 50 | 60 | 60 |
| Magic Valley District: | 640 | 700 | 720 | 700 | 680 |
| Aberdeen-Amer. Falls District: | 3,270 | 2,170 | 1,600 | 1,220 | 980 |
| Bingham District: | 1,040 | 730 | 550 | 430 | 350 |
| Bonneville-Jefferson District: | 710 | 570 | 470 | 380 | 310 |
| Totals: | 5,690 | 4,210 | 3,390 | 2,790 | 2,380 |

replacement acreage equals the consumptive use on the acreage with supplemental ground water irrigation. The equivalent acreage consists of the sum of acreages irrigated solely with ground water and the replacement acreages for acreages irrigated with both surface water and ground water.

23. The total reach gain accruals set forth in Finding 22 are the total accruals that are simulated to occur over a time period of about 20 years or more from the curtailment of the diversion and use of ground water under the water rights and for the irrigation of the lands described in Finding 22 for a single year. The 6-month accruals set forth in Finding 22 are the simulated incremental additions to the reach gains for the first 4 years following curtailment for a single year. By the end of the fourth year, approximately 70 percent of the total reach gain accruals will have occurred. Additional reach gains would continue to accrue until the effects of the single year of curtailment have been fully realized.

24. If curtailment of the diversion and use of ground water under these same rights occurred within the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, and Bonneville-Jefferson ground water districts during each and every year of a four-year period, the following 6-month accruals to the reach gains are simulated to occur using the Department's ground water model:

| | Acres Curtailed | Total Accruals (acre-feet) | 1st 6-month Accruals (acre-feet) | 2nd 6-month Accruals (acre-feet) | 3rd 6-month Accruals (acre-feet) |
|---|---|---|---|---|---|
| North Snake District: | 3,890 | 8,520 | 0 | 0 | 10 |
| Magic Valley District: | 16,930 | 71,120 | 30 | 240 | 520 |
| Aberdeen-Amer. Falls District: | 32,430 | 199,600 | 14,060 | 13,600 | 19,770 |
| Bingham District: | 11,650 | 57,480 | 3,260 | 3,700 | 4,960 |
| Bonneville-Jefferson District: | 8,050 | 26,800 | 210 | 840 | 1,070 |
| Totals: | 72,950 | 363,520 | 17,560 | 18,380 | 26,330 |

| | 4th 6-month Accruals (acre-feet) | 5th 6-month Accruals (acre-feet) | 6th 6-month Accruals (acre-feet) | 7th 6-month Accruals (acre-feet) | 8th 6-month Accruals (acre-feet) |
|---|---|---|---|---|---|
| North Snake District: | 30 | 50 | 80 | 110 | 140 |
| Magic Valley District: | 880 | 1,220 | 1,600 | 1,920 | 2,280 |
| Aberdeen-Amer. Falls District: | 16,870 | 21,940 | 18,470 | 23,160 | 19,440 |
| Bingham District: | 4,740 | 5,680 | 5,300 | 6,120 | 5,650 |
| Bonneville-Jefferson District: | 1,550 | 1,640 | 2,020 | 2,020 | 2,330 |
| Totals: | 24,070 | 30,530 | 27,470 | 33,330 | 29,840 |

25. The total increase in reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage from curtailment for a single year within ground water districts is less than the total increase in reach gains from curtailment within Water District No. 120 and No. 130 by 5,820 acre-feet because not all ground water rights having priority dates of May 23, 1979, and later that are within Water District No. 120 and No. 130 are also within ground water districts. Nearly all such rights are located east of American Falls Reservoir in an area adjacent

to the Aberdeen-American Falls Ground Water District. The amount 5,820 acre-feet is 11.7 percent of the 49,900 acre-feet increase in reach gains that would occur over time from curtailment for a single year in the Aberdeen-American Falls Ground Water District.

**Replacement Water Provided and Owed for 2005**

26. On June 24, 2005, the Director issued *Order Approving IGWA's Replacement Water Plan for 2005* (herein referred to as the "June 24 Order"), in lieu of the curtailment described in Finding 22, which replacement water consisted of 20,000 acre-feet of storage water leased from the Peoples Canal and Irrigation Company, the Idaho Irrigation District, and the New Sweeden Irrigation District; 6,024 acre-feet of reach gain resulting from the non-use and lease of ground water under water rights held by FMC Idaho, L.L.C. ("FMC Idaho"); 435 acre-feet of reach gain resulting from the nonirrigation of lands idled in 2005; and approximately 64,272 acre-feet of storage water exchanged with the U. S. Bureau of Reclamation.

27. Pursuant to the May 2 Order and the June 24 Order, IGWA was to assign a minimum of 27,700 acre-feet of replacement water to the Director during the irrigation season of 2005 for allocation to members of the Surface Water Coalition. The amount 27,700 acre-feet is more than 17,560 acre-feet, the amount of simulated reach gain from curtailment of junior priority ground water rights during the 2005 irrigation season identified as the "1st 6-month Accruals" in Finding 22, plus an additional 1,650 acre-feet (11.7 percent of 14,060 acre-feet) of simulated reach gain from curtailment of junior priority ground water rights that are within Water District No. 120 and adjacent to but outside of the Aberdeen-American Falls Ground Water District.

28. Although IGWA, representing the ground water districts whose members include the holders of the affected junior priority ground water rights, secured more than the minimum 27,700 acre-feet of replacement water, only incremental increases in reach gains resulting from the lease and non-use of water rights held by FMC Idaho were provided to the Twin Falls Canal Company during the 2005 irrigation season.

29. Using the Department's water right accounting program, it was determined that of the 6,024 acre-feet of reach gain (8.32 cfs for 365 days) from the non-use of ground water under water rights held by FMC Idaho, which rights were leased through the water bank operated by the Idaho Water Resource Board, a total of 694 acre-feet of the reach gain resulting from the lease was disturbed to the Twin Falls Canal Company, the only member of the Surface Water Coalition receiving the reach gain during the irrigation season.

30. At a status conference held by the Director at the Department's offices on November 30, 2005, counsel for IGWA described that a sufficient amount of storage water was not assigned to the Director to provide a minimum of 27,700 acre-feet of replacement water because IGWA was uncertain of the process for assignment.

31. At an informal meeting held at the Department's offices on December 8, 2005, it was agreed that IGWA would provide the remainder of the 2005 minimum replacement water to the Twin Falls Canal Company at the beginning of the 2006 irrigation season (March 15) rather

than as reservoir carryover storage in 2005 in the event the reservoir storage space held by the Twin Falls Canal Company under contract with the U. S. Bureau of Reclamation would fill in 2006 without the additional carryover of 27,006 acre-feet (minimum 2005 replacement water of 27,700 acre-feet less 694 acre-feet leased from FMC Idaho through the water bank). Had the remaining 27,006 acre-feet of 2005 replacement water been credited to the Twin Falls Canal Company 2005 reservoir carryover storage and the storage space held by Twin Falls would have filled without the remaining 27,006 acre-feet of 2005 replacement water, then the 27,006 acre-feet of water would not be additive to the 2006 storage allocation for Twin Falls and the canal company would have lost any potential for using the remaining 27,006 acre-feet of 2005 replacement water.

32. Subsequent to the informal meeting described in Finding 31, the Director issued his *Second Supplemental Order Amending Replacement Water Requirements* for 2005 on December 27, 2005. Part of paragraph 4 of that order provided that:

> ... IGWA shall provide the Twin Falls Canal Company with the remainder of the 27,700 acre-feet of minimum replacement water that was required in 2005, that was not provided from incremental increases in reach gains, plus an additional 18,340 acre-feet of replacement water at the beginning of the irrigation season in 2006 (March 15), subject to the final determination of 2005 material injury. The remainder of such replacement water that was due in 2005 for 2005 material injury shall be in addition to the water supplies otherwise available to the Twin Falls Canal Company in 2006, 18,240 acre-feet of replacement water or curtailment for the third and fourth six-month reach gain accruals of simulated curtailment for the preliminary material injury in 2005 (unless the reservoir storage space held by the members of the Surface Water Coalition under contract with the USBR fills), and curtailment or replacement water required to mitigate for material injury determined to be reasonably likely in 2006, if any.

33. On January 23, 2006, the Surface Water Coalition filed *Motion for Stay* seeking to stay the schedule for the proceedings in this matter until the challenge to the Rules for Conjunctive Management of Surface and Ground Water Resources (IDAPA 37.03.11), Gooding County Case No. CV-2005-0000600, was resolved. On January 25, 2006, the Surface Water Coalition, IGWA, and the City of Pocatello filed a joint *Stipulated Motion for Entrance of Protective Order* seeking a stay in the proceedings "for a period of sixty (60) days from the date of this Order for purposes of allowing the parties to investigate settlement."

34. On February 3, 2006, the Director held a status conference at the Department's offices in part to inquire whether it was the intent of the parties that the requested stay should apply to the requirement that IGWA provide the replacement water described in Finding 32 to the Twin Falls Canal Company by March 15, 2006. The parties agreed that the stay should apply to IGWA's replacement water requirement.

35. On February 10, 2006, the Director issued *Order Staying Proceedings and Amended Scheduling Order* staying the proceedings in this matter for 60 days, including a 60-day stay of the requirement that IGWA provide replacement water to the Twin Falls Canal Company by March 15, 2006. Therefore, IGWA's obligation to provide replacement water was postponed until May 15, 2006.

36. Based on records maintained by Water District 01, water rights for the diversion of water from the Snake River to storage in Jackson Lake, American Falls Reservoir, and Palisades Reservoir were completely filled, respectively, on March 9, April 20, and May 21, 2006, including all storage space held by members of the Surface Water Coalition.

37. When water rights for the diversion of water from the Snake River to storage in Jackson Lake, American Falls Reservoir, and Palisades Reservoir fill, carryover storage in those reservoirs from the prior year is cancelled because reservoir space holders, including members of the Surface Water Coalition, cannot have more water in their storage space, held under their space-holder contracts with the USBR, than a full allocation of storage water.

38. Any additional replacement water that would have been provided by IGWA to any member of the Surface Water Coalition after the 2005 irrigation season but prior to the 2006 allocation of storage water would have been in storage space that would have otherwise filled and would not have provided any benefit to any member of the Coalition.

**Material Injury Predicted for 2006**

39. Whether effects of ground water depletions result in material injury to the senior priority surface water rights held by the members of the Surface Water Coalition in a particular year depends in large part on the total water supply, under natural flow water rights and from reservoir storage, and in some instances supplemental ground water rights, otherwise available to each member of the Coalition in that year.

40. The USBR and USACE jointly prepare operating forecasts for unregulated inflow from the Upper Snake River Basin projected for the Heise Gage beginning soon after January 1 of each year. The Heise Gage location is the most representative location for overall surface water supply conditions in the Upper Snake River Basin.

41. The USBR and USACE jointly issue forecasts each year for unregulated inflow at the Heise Gage after April 1, for the period April 1 through July 31, which is generally as accurate a forecast as is possible using current data gathering and forecasting techniques.

42. The U. S. Natural Resources and Conservation Service ("NRCS") operates and maintains Snotel sites that measure and record snowpack conditions throughout the western United States that are used to develop forecasts for inflow to various river systems and for other purposes. The USBR and USACE use the NRCS Snotel sites in the Upper Snake River Basin to develop the inflow forecasts described in Findings Nos. 40 and 41.

43. The joint operating forecast prepared by the USBR and the USACE for unregulated inflow from the Upper Snake River Basin predicted for the Heise Gage for the period April 1 through July 31, 2006, predicts an unregulated inflow of 3,950,000 acre-feet. While the actual, measured inflow from April 1, 2006, through July 31, 2006, will undoubtedly be different than the predicted inflow of 3,950,000 acre-feet, the predicted inflow is similar to the measured, unregulated inflows at the Heise Gage for two recent years, 1995 and 1998. In 1995,

the unregulated inflow for the period April 1 through July 31 was 3,815,600 acre-feet, and in 1998 the unregulated inflow for the same period was 3,838,700 acre-feet.

44. The amount of unregulated inflow that may be divertible under the water rights held by members of the Surface Water Coalition and the amount of water that may be divertible to storage in the reservoirs operated by the USBR for the benefit of the members of the Coalition can be highly variable and depends on climatic conditions and when water rights authorizing diversions from the Snake River are in priority.

45. Attachments A through G show correlations between measured, unregulated inflows at the Heise Gage for the period April 1 through July 31 and the amounts of natural flow historically diverted by each of the members of the Surface Water Coalition for the years 1990 through 2005.

46. The amounts of natural flow diverted by individual members of the Surface Water Coalition in 1995 and 1998 are near or above the best-fit trendlines in Attachments A through G and do not provide conservative estimates of the amounts of natural flow that may be available in 2006 to members of the Coalition, except for the Twin Falls Canal Company during 1995.

47. Predicting the amount of natural flow that may be divertible in 2006 under the water rights held by individual members of the Surface Water Coalition based on what was historically divertible is uncertain because it is unlikely that the climatic conditions and the resulting portion of the inflow divertible by individual members of the Coalition will be exactly the same in 2006 as in any prior particular year. While acknowledging the uncertainty in predicting the amount of natural flow that may be divertible in 2006 under the water rights held by individual members of the Coalition, the predicted unregulated flow of 3,950,000 acre-feet from April 1 through July 31, 2006, at Hiese together with the regression relationships that are one standard error below the best-fit trendlines in Attachments A through G for each member of the Coalition provide a conservative estimate of the natural flow that may be divertible in 2006 by each member of the Coalition.

48. Using the predicted unregulated flow of 3,950,000 acre-feet from April 1 through July 31, 2006, at Hiese with the regression relationships that are one standard error below the best-fit trendlines in Attachments A through G results in the following predicted natural flow available during the 2006 irrigation season to each member of the Surface Water Coalition:

| | Predicted 2006 Natural Flow Diversions (acre-feet) |
|---|---|
| A&B Irrigation District: | 15,300 |
| American Falls Res. Dist. #2: | 139,400 |
| Burley Irrigation District: | 173,300 |
| Milner Irrigation District: | 21,400 |
| Minidoka Irrigation District: | 175,600 |
| North Side Canal Company: | 597,800 |
| Twin Falls Canal Company: | 913,700 |

49. On June 21, 2006, maximum physical storage in the Upper Snake River Basin Reservoirs had accrued. Preliminary accounting on June 27, 2006, showed Henrys Lake, Island Park Reservoir, Grassy Lake, Ririe Reservoir, American Falls Reservoir, and Lake Walcott had filled to 100 percent. Jackson Lake had a total fill of 829,350 acre-feet (97.9 percent), Palisades Winter Water Savings had a fill of 248,100 acre-feet (95.6 percent), and the Palisades 1939 water right had a fill of 898,900 acre-feet (95.6 percent). The physical reservoir fills for Jackson Lake and Palisades Reservoir are less than 100 percent, even though the corresponding water rights for diversions to storage were completely filled on March 9 and May 21, 2006, respectively, because of subsequent flood control releases by the USBR and the inability to refill 70,600 acre-feet of storage space (25 percent attributed to Jackson Lake and 75 percent attributed to Palisades Reservoir by the USBR) after spills at Milner Dam ceased on May 16.

50. On June 27, 2006, the following preliminary storage accruals for the benefit of the members of the Surface Water Coalition and estimated reservoir evaporation were determined by Water District 01:

| | 2006 Max. Storage (acre-feet) | 2006 Evap. (acre-feet) | Preliminary 2006 Net Storage (acre-feet) |
|---|---|---|---|
| Jackson Lake: | 829,300 | 18,300 | 811,000 |
| Palisades Winter Water Savings: | 248,100 | 5,500 | 242,600 |
| Other Palisades Reservoir: | 898,900 | 19,900 | 879,000 |
| Henrys Lake: | 90,000 | 2,000 | 88,000 |
| Island Park Res. & Grassy Lake: | 150,200[10] | 3,300[10] | 146,900[10] |
| Ririe Reservoir: | 80,500 | 1,800 | 78,700 |
| Amer. Falls Winter Water Sav.: | 156,900 | 3,500 | 153,400 |
| Other American Falls: | 1,515,800 | 33,600 | 1,482,200 |
| Lake Walcott: | 95,200 | 2,100 | 93,100 |
| Totals: | 4,064,900 | 90,000 | 3,974,900 |

51. Using the Department's accounting program for storage, the preliminary maximum storage, less estimated evaporation for 2006, was allocated among all reservoir storage spaceholders in the Upper Snake River Basin, which resulted in the following preliminary storage allocations for the members of the Surface Water Coalition. When the preliminary storage allocations are added to the natural flow predicted to be available for the 2006 irrigation year, as set forth in Finding 48, the predicted total supply for each member of the Coalition is considered to be a reasonably likely projection of the total amount of water that may be available to each member of the Coalition during the 2006 irrigation year, subject to variations in water supply conditions and variations caused by climatic conditions, for the limited purpose of assessing reasonably likely material injury caused by the diversion and use of ground water under junior priority rights. The reasonably likely predicted total supply for the 2006 irrigation year for each member of the Coalition is as follows:

[10] Grassy Lake included with Island Park Reservoir.

| | 2006 Natural Flow (acre-feet) | 2006 Storage (acre-feet) | Total 2006 Supply (acre-feet) |
|---|---|---|---|
| A&B Irrigation District: | 15,300 | 130,700 | 146,000 |
| American Falls Res. Dist. #2: | 139,400 | 384,800 | 524,200 |
| Burley Irrigation District: | 173,300 | 219,800 | 393,100 |
| Milner Irrigation District: | 21,400 | 85,600 | 107,000 |
| Minidoka Irrigation District: | 175,600 | 353,100 | 528,700 |
| North Side Canal Company: | 597,800 | 829,500 | 1,427,300 |
| Twin Falls Canal Company: | 913,700 | 238,500 | 1,152,200 |

52. To predict the shortages in surface water supplies that are reasonably likely for members of the Surface Water Coalition for the 2006 irrigation year, if any, the amounts of water diverted for the 1995 irrigation year, as described in the May 2 Order, are deemed to be the minimum amounts needed[1] for full deliveries to land owners and shareholders. If crop evapotranspiration is greater in 2006 or precipitation during the irrigation season is less than in 1995, the amounts of water diverted in 1995 may be less than what is needed for a full supply in 2006. If crop evapotranspiration is less in 2006 or precipitation during the irrigation season is greater than in 1995, the amounts of water diverted in 1995 may be more than what is needed for a full supply in 2006.

53. The shortages in surface water supplies that are reasonably likely for members of the Surface Water Coalition in 2006 are estimated by subtracting the reasonably likely total supplies of natural flow and storage for the 2006 irrigation year, set forth in Finding 51, from the minimum amounts needed for full deliveries based on diversions in 1995 as follows:

| | Minimum Full Supply Needed (acre-feet) | Predicted 2005 Supply (acre-feet) | Predicted Shortages in 2005 (- is surplus) (acre-feet) |
|---|---|---|---|
| A&B Irrigation District: | 50,000 | 146,000 | -96,000 |
| American Falls Res. Dist. #2: | 405,600 | 524,200 | -118,600 |
| Burley Irrigation District: | 220,200[11] | 393,100 | -172,900 |
| Milner Irrigation District: | 50,800 | 107,000 | -56,200 |
| Minidoka Irrigation District: | 314,300[12] | 528,700 | -214,400 |
| North Side Canal Company: | 988,200 | 1,427,300 | -439,100 |
| Twin Falls Canal Company: | 1,075,900 | 1,152,200 | -76,300 |

54. None of the members of the Surface Water Coalition have reasonably likely predicted shortages in 2006.

55. The reasonably likely material injury predicted for 2006, if any, is the sum of the shortages set forth in Finding 53, if any, and the shortfalls in predicted carryover as compared to

[11] 41.2 percent of total Minidoka Project diversions for the 1995 irrigation year from Water District 01 report.

[12] 58.8 percent of total Minidoka Project diversions for the 1995 irrigation year from Water District 01 report.

the reasonable amounts of carryover storage set forth in Finding 119 of the May 2 Order, if any. The following are the predicted amounts of injury and ending carryover storage for 2006 for the members of the Surface Water Coalition:

| | Predicted 2006 Material Injury Shortages + Carryover Shortfalls (acre-feet) | Predicted 2006 Carryover[13] (acre-feet) |
|---|---|---|
| A&B Irrigation District: | 0 | 96,000 |
| American Falls Res. Dist. #2: | 0 | 118,600 |
| Burley Irrigation District: | 0 | 172,900 |
| Milner Irrigation District: | 0 | 56,200 |
| Minidoka Irrigation District: | 0 | 214,400 |
| North Side Canal Company: | 0 | 439,100 |
| Twin Falls Canal Company: | 0 | 76,300 |
| Totals: | 0 | 1,172,900 |

56. There is no reasonably likely material injury predicted for 2006. However, climatic conditions for the remainder of 2006 cannot be precisely predicted, meaning that there could be material injury during 2006 and the actual carryover storage is likely to be greater or smaller.

57. On June 15, 2006, the National Weather Service Climate Prediction Center issued updated seasonal forecasts for temperature and precipitation. For the Upper Snake River Basin, which includes the lands irrigated by members of the Surface Water Coalition, the National Weather Service is forecasting that temperatures in 2006 are likely to be above normal during the months of July, August, and September. Additionally, seasonal precipitation in 2006 is forecasted to be some below normal for the months of July, August, and September, for at least a portion of the lands irrigated by members of the Surface Water Coalition.

58. Because the Twin Falls Canal Company is dependent on natural flow for most of its water supply, which is largely provided by reach gains to the Snake River between the Near Blackfoot Gage and the Neeley Gage, which are shown on Attachment H for the years 1928 through 2005, and because these reach gains remain near recorded historical lows, there is an increased possibility that the Twin Falls Canal Company may experience material injury in 2006, although such injury can not now be reasonably predicted.

## CONCLUSIONS OF LAW

1. Conclusions of Law set forth in the May 2 Order, as applicable, are incorporated into this Supplemental Order.

[13] Excluding rental pool leases.

2. Based on final water rights accounting through October 31, 2005, only the Twin Falls Canal Company was presumed to incur material injury during the 2005 irrigation season. The presumed material injury to the Twin Falls Canal Company during the 2005 irrigation season was 127,900 acre-feet.

3. The presumed injury of 127,900 acre-feet in 2005 was to have been offset in 2005 and subsequent years, separately or in combination, through either the curtailment of the diversion and use of certain junior priority ground water rights within Water District No. 120 and No. 130, or through the provision of replacement water to the Twin Falls Canal Company on an annual basis in amounts and generally at times at least equal to the increase in reach gains in the Snake River between the Near Blackfoot Gage and the Minidoka Gage that would have resulted from curtailment, based on simulations using the Department's ground water model for the ESPA, until reservoir storage space held by the Twin Falls Canal Company refills[14]. The reservoir storage space held by the Twin Falls Canal Company filled in 2006.

4. Although IGWA secured at least 27,700 acre-feet of replacement water in 2005, which exceeded the reach gain accruals during the 2005 irrigation season between the Near Blackfoot Gage and the Minidoka Gage that were simulated to occur from curtailment of certain junior priority ground water rights using the Department's ESPA ground water model, and the amount of 27,700 acre-feet was the minimum amount required by the May 2 Order, only 694 acre-feet of the reach gain resulting from the lease and non-use of water rights held by FMC Idaho was provided to the Twin Falls Canal Company during the 2005 irrigation season.

5. IGWA should be required to provide the Twin Falls Canal Company with the remainder of the 27,700 acre-feet of minimum replacement water (27,006 acre-feet) that was to have been provided by May 15, 2006, pursuant to the *Order Staying Proceedings and Amended Scheduling Order* issued on February 10, 2006, described in Finding 35.

6. The Twin Falls Canal Company is entitled to the benefit of the remaining 27,006 acre-feet of minimum replacement water that has not yet been provided.

7. Because all of the storage space held by members of the Surface Water Coalition filled in 2006 under the applicable water rights for diversions to storage, no additional replacement water or curtailment should be required in 2006 for the material injury incurred in 2005.

8. Although there is no reasonably likely material injury to any member of the Surface Water Coalition predicted during the 2006 irrigation season, the Director should continue to monitor water supply and climatic conditions in 2006 and require additional replacement water or curtailment in the event material injury occurs.

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[14] When reservoir storage space refills, an amount of water equal to increased reach gains from curtailment during the prior nonirrigation season cannot be stored. Therefore, an equivalent amount of replacement water is not required. Whether there is material injury caused by depletions to reach gains from the exercise of junior priority ground water rights during the irrigation season following the refill of storage is determined in that irrigation season. Any such material injury must be offset by additional curtailment or replacement water, separately or in combination.

9. The provision of 27,006 acre-feet of replacement water by IGWA for its remaining 2005 obligation will reduce the likelihood of material injury occurring during the 2006 irrigation season to the Twin Falls Canal Company.

## ORDER

Based upon and consistent with the foregoing, IT IS HEREBY ORDERED as follows:

1. Requirements set forth in the May 2 Order, as applicable, are incorporated into this Supplemental Order.

2. The amount of replacement water remaining to be provided, 27,006 acre-feet, as required by the May 2 Order and the *Order Staying Proceedings and Amended Scheduling Order* of February 10, 2006, to mitigate material injury in 2005 caused by the diversion and use of ground water under water rights having priority dates of or later than May 23, 1979, shall be provided to the Twin Falls Canal Company by the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, and Bonneville-Jefferson ground water districts, or by IGWA on behalf of the ground water districts, no later than July 9, 2006.

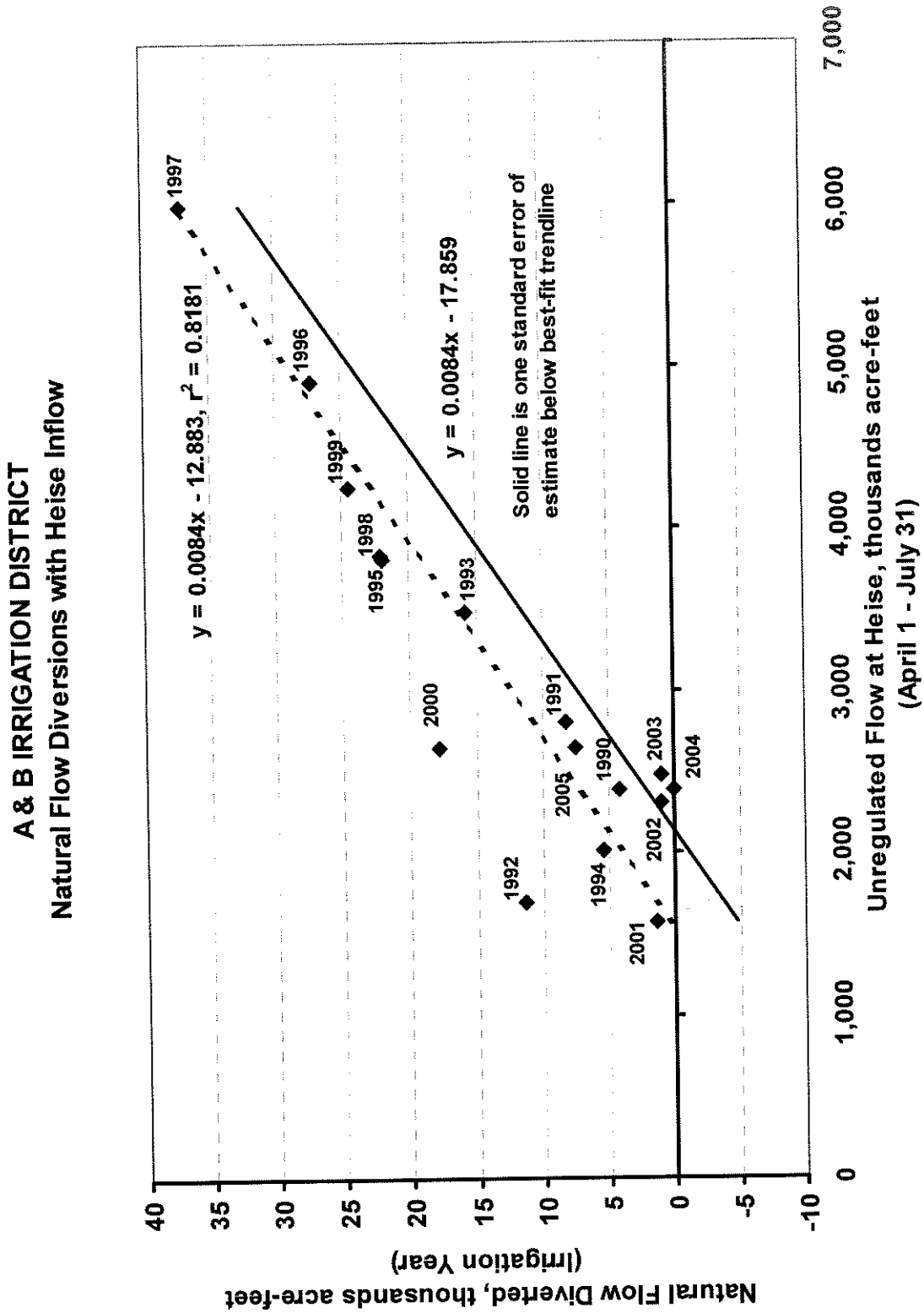
3. If the North Snake, Magic Valley, Aberdeen-American Falls, Bingham, and Bonneville-Jefferson ground water districts, or by IGWA on behalf of the ground water districts, fail to provide the Twin Falls Canal Company with the remaining 27,006 acre-feet of minimum replacement water required from 2005, then ground water rights in Water District No. 120 and No. 130, having priority dates of May 23, 1979, and later shall be curtailed to the extent necessary to provide the remaining replacement water.

4. The Director will continue to monitor water supply and climatic conditions through the 2006 irrigation season and issue additional orders requiring additional replacement water in 2006 or further instructions to the watermasters for Water District No. 120 and No. 130 should material injury occur to rights held by or for the benefit of members of the Surface Water Coalition.

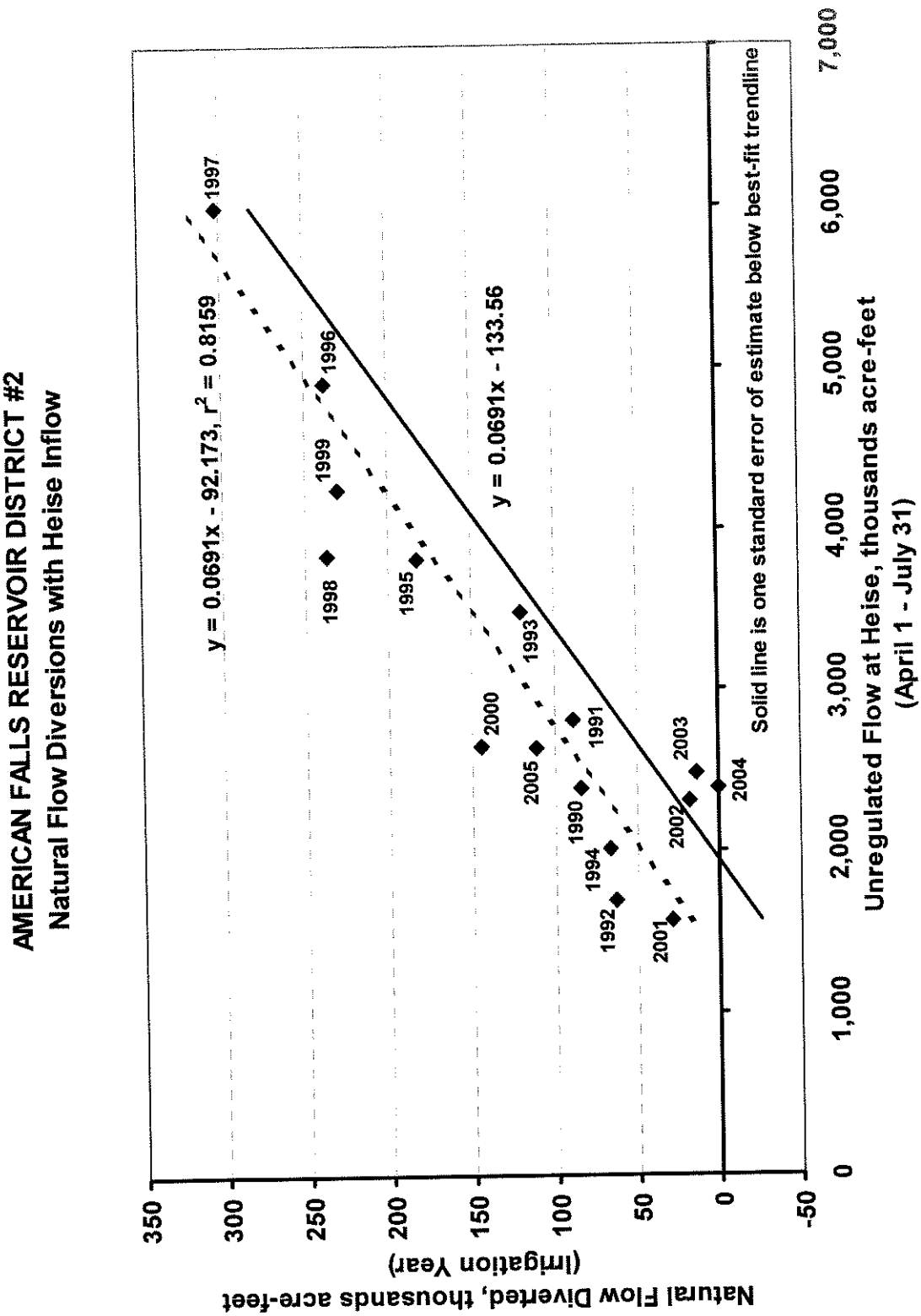
DATED this 29th day of June, 2006.

KARL J. DREHER
Director

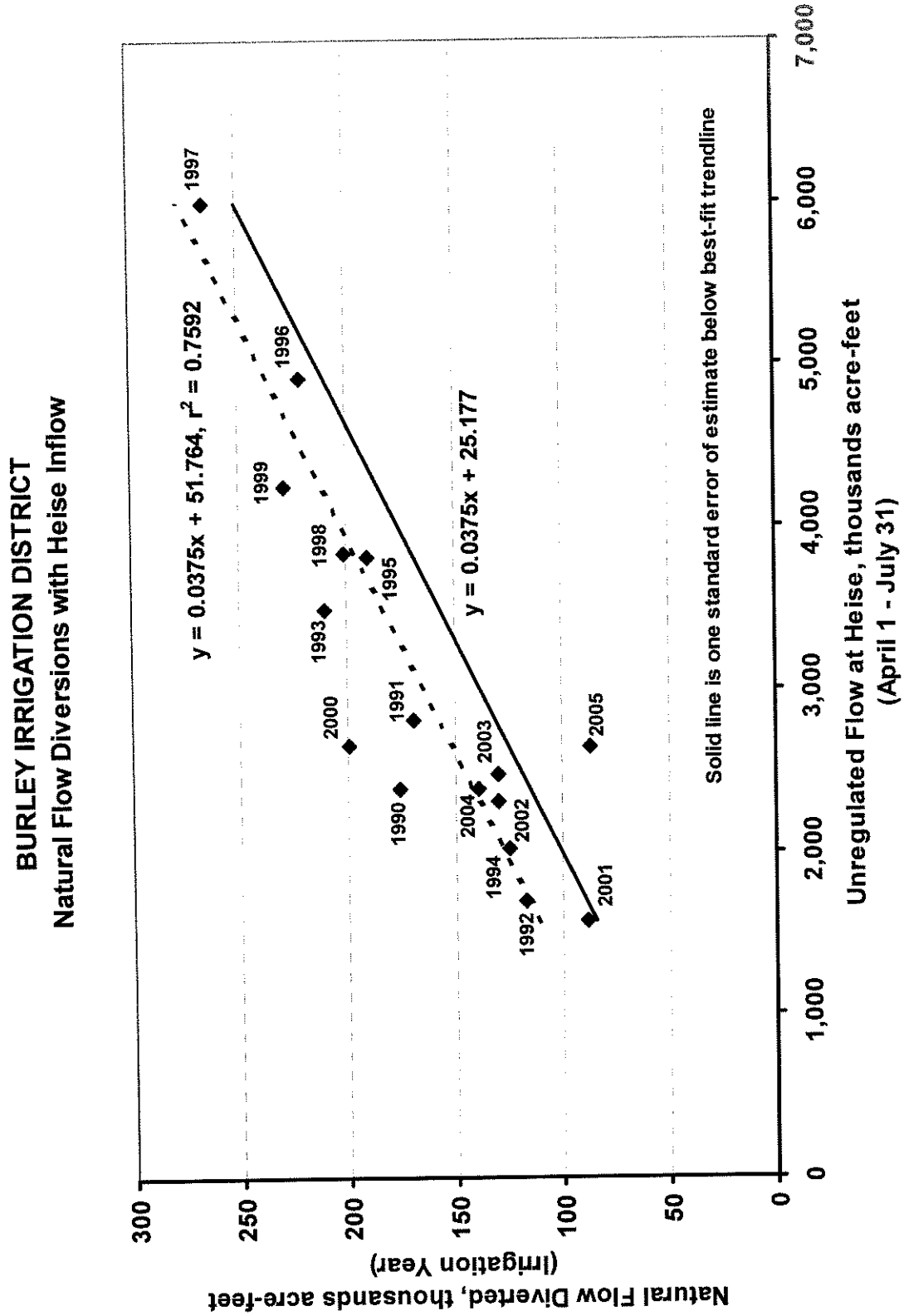
ATTACHMENT A



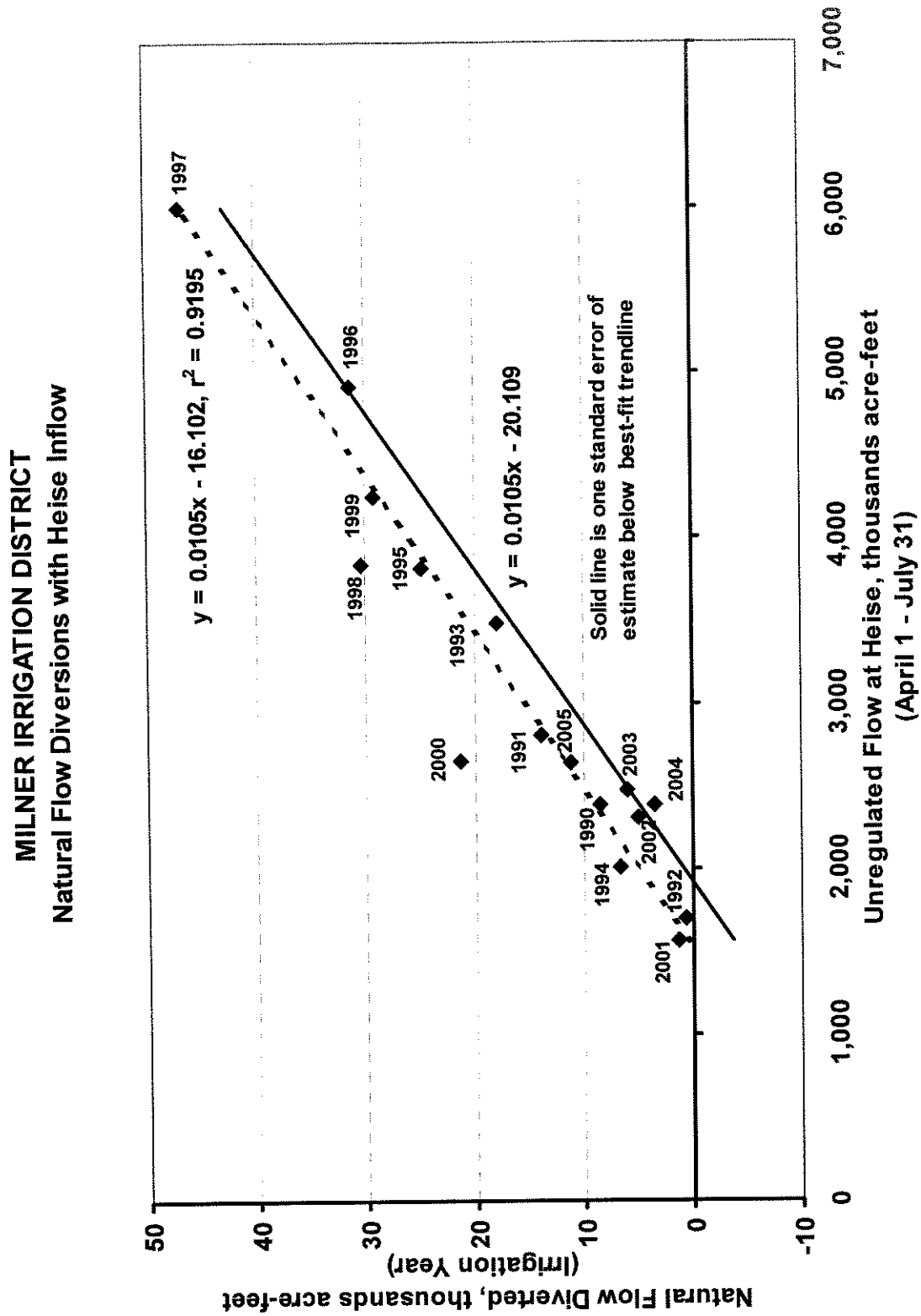
ATTACHMENT B



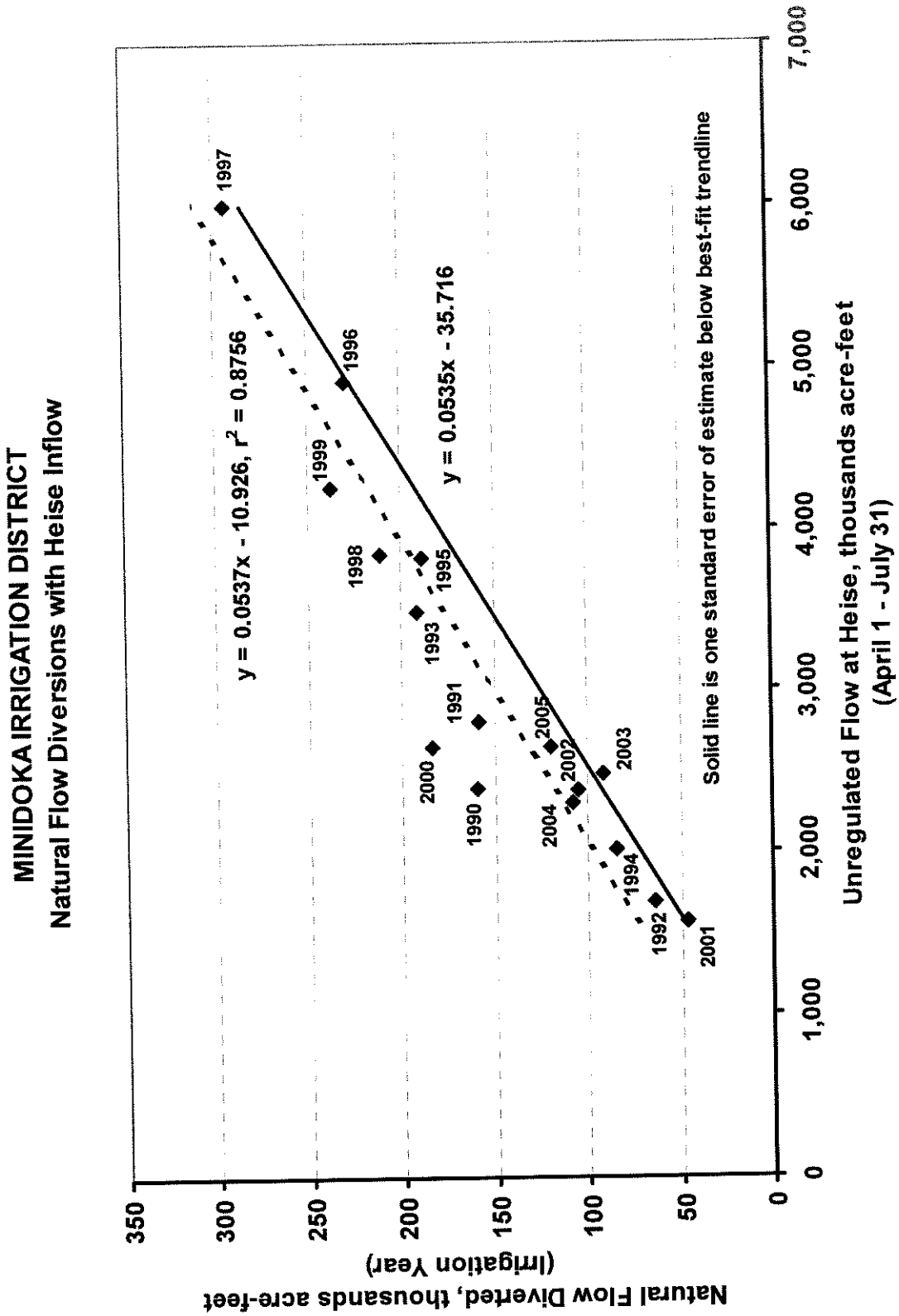
ATTACHMENT C



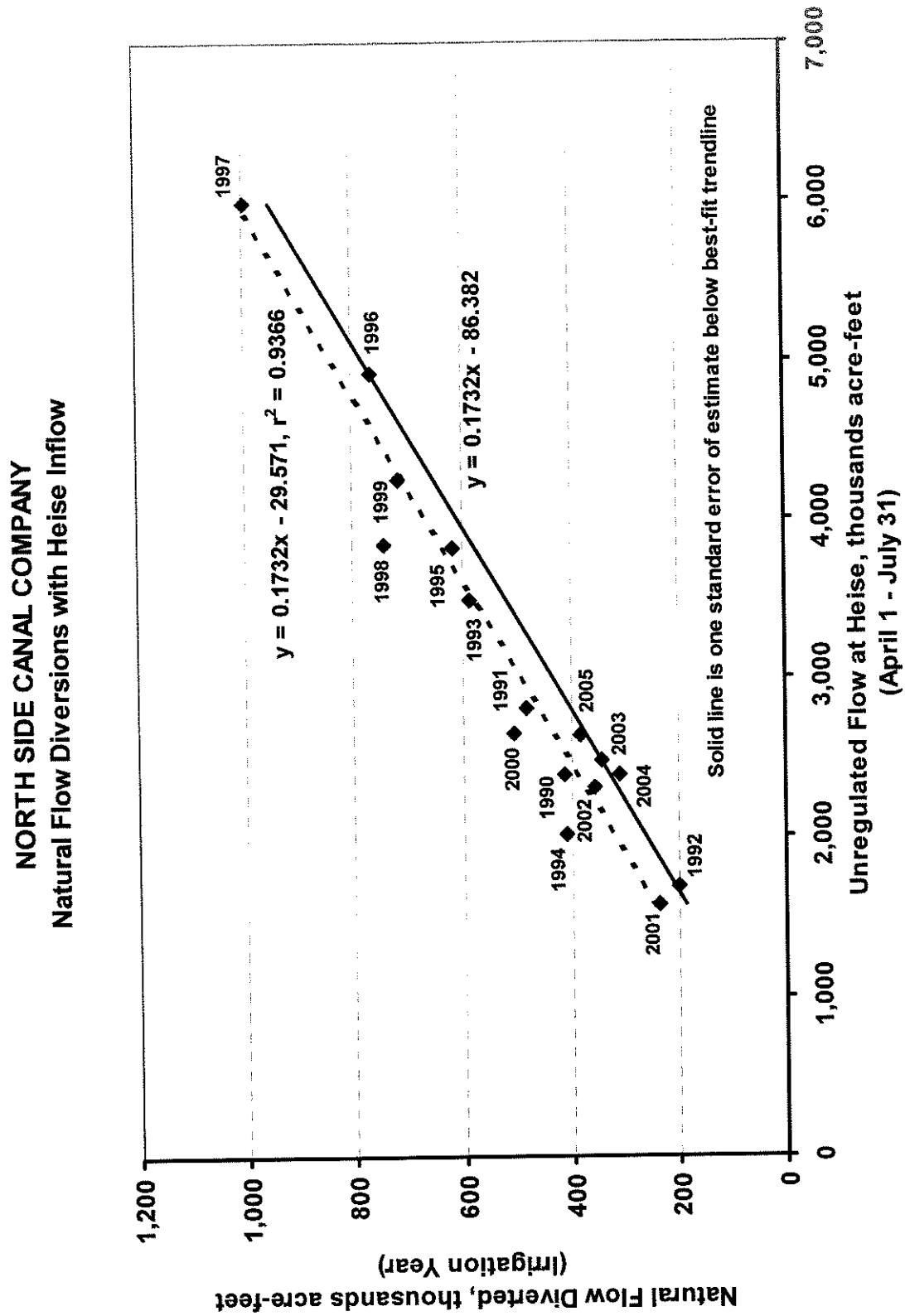
ATTACHMENT D



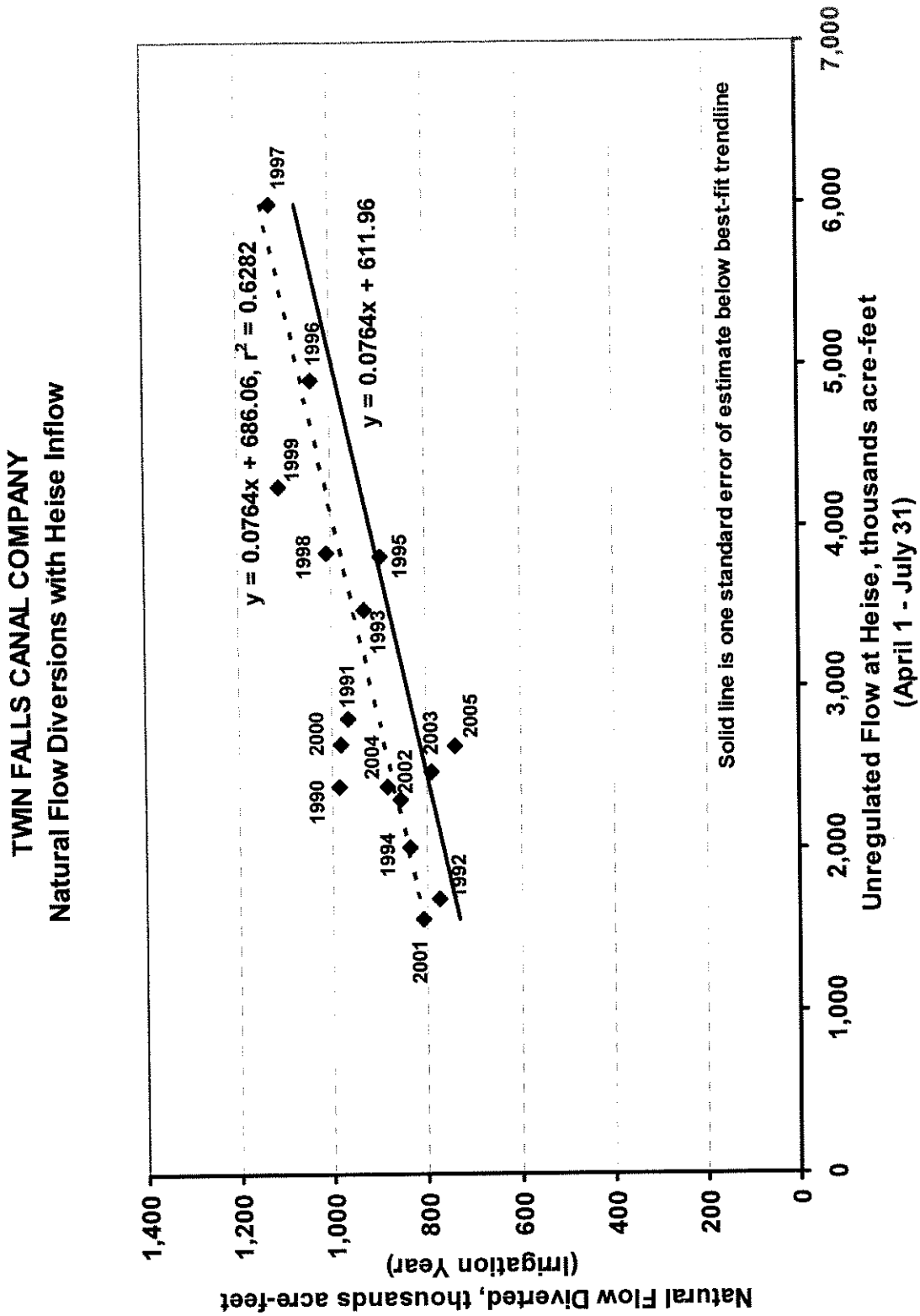
## ATTACHMENT E



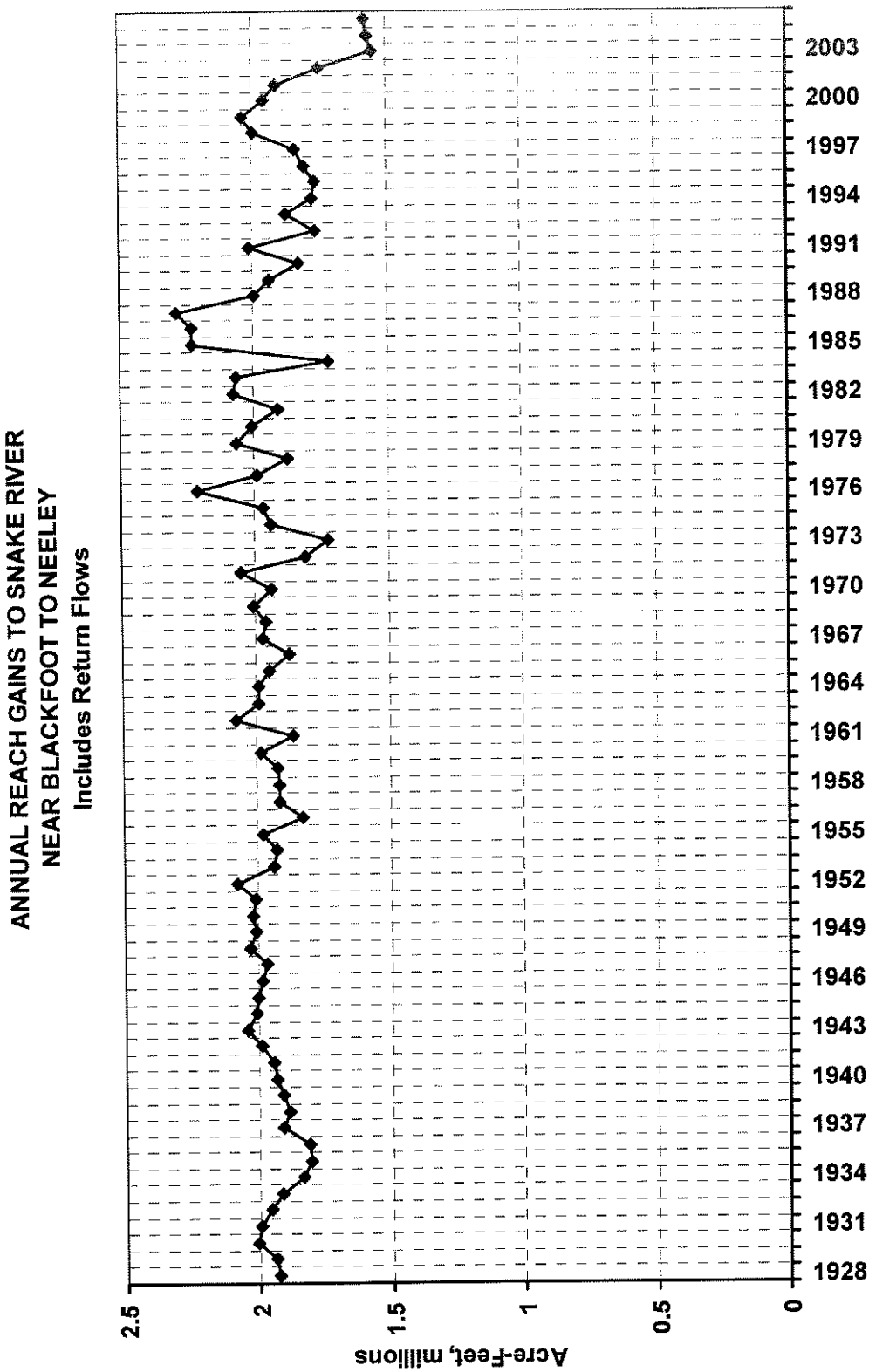
ATTACHMENT F



## ATTACHMENT G



## ATTACHMENT H



## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 29th day of June, 2006, the above and foregoing, was served by the method indicated below, and addressed to the following:

| | |
|---|---|
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