

RECLAMATION

Managing Water in the West

Final Environmental Assessment
Fremont-Madison Irrigation District
Proposed Title Transfer

Minidoka Project, Idaho-Wyoming
Teton Basin Project, Idaho



U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Snake River Area

September 2004

U.S. Department of the Interior Mission Statement

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to tribes.

Bureau of Reclamation Mission Statement

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American Public.

FINDING OF NO SIGNIFICANT IMPACT

Fremont-Madison Irrigation District Proposed Title Transfer Minidoka Project, Idaho-Wyoming and Teton Basin Project, Idaho

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Snake River Area

PN-FONSI 04-10
September 2004

Introduction

The Bureau of Reclamation prepared this Finding of No Significant Impact (FONSI) to comply with the Council on Environmental Quality's regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA). This document briefly describes the proposed title transfer, the alternatives considered, the scoping process, Reclamation's consultation and coordination activities, and Reclamation's finding. The final environmental assessment fully documents the analyses.

Background

In 2003, the Congress passed the Fremont-Madison Conveyance Act (Public Law 108 85). This Act requires the Secretary of the Interior to transfer all right, title, and interest of the United States in Cross Cut Diversion Dam, Cross Cut Canal, a water right permit, and appurtenant acquired land and easements of the Minidoka and Teton Basin Projects to the Fremont-Madison Irrigation District (FMID). FMID currently operates and maintains Project facilities to provide irrigation water to approximately 285,000 acres within the District boundaries. The Conveyance Act requires the Secretary to either transfer title before September 13, 2004, or submit a report to Congress explaining the reasons that conveyance has not been completed and stating a date it will be completed. In May 2004, Reclamation issued a draft environmental assessment to document the analysis of the potential effects of title transfer on the human environment.

Purpose and Need

The purpose of title transfer is to implement the Conveyance Act, which requires the Secretary to transfer ownership of certain Reclamation facilities to FMID. Congress has recognized that FMID has effectively operated, maintained, and managed the District's water resources and facilities since inception in the 1930s. FMID has also satisfied the construction obligations for the diversion dam and canal.

Reclamation's title transfer initiative implements the National Performance Review goal of a Federal government that works better and costs less. This action will allow FMID to be more efficient in its operation and maintenance of the transferred facilities consistent with its legal and fiduciary responsibilities.

Alternatives Considered

The environmental assessment addressed two alternatives: the No Action alternative and the Proposed Action of title transfer as described in the Fremont-Madison Conveyance Act. NEPA regulations require the action agency to consider a No Action alternative for comparative analysis purposes.

Alternative A – No Action

In this alternative, Reclamation would not transfer title as described in the Fremont-Madison Conveyance Act. The United States would retain ownership of the Cross Cut Diversion Dam, Cross Cut Canal, and appurtenant acquired land and easements. Reclamation would take the necessary actions under Idaho State law to prove beneficial use for the five drilled Teton Exchange Wells, and the United States would relinquish the undeveloped portion of the permit to the Idaho Water Resource Board. To continue to receive exchange water from the five drilled wells, FMID would exercise its option to renew its current water service contract or convert to a repayment contract. Other aspects of Reclamation's relationship with FMID would continue as they have occurred in the past.

Alternative B – Title Transfer

In this alternative, Reclamation would implement the provisions of the Fremont-Madison Conveyance Act by transferring to FMID all right, title, and interest of the United States in and to the canals, laterals, drains, and other components of the water distribution system. The Cross Cut Diversion Dam, the Cross Cut Canal, and the Teton Exchange Wells are the main facilities included in the transfer.

The Teton Exchange Wells include five drilled wells, appurtenant equipment, acquired land, easements, rights-of-way, and State of Idaho water right permit #22-7022. If a license is issued on water right permit #22-7022, the subsequent water right would have the priority date of April 23, 1969. Though only five exchange wells have been developed, the original permit anticipated up to 45 wells. Upon Reclamation signing a quit claim deed, FMID would remit payment to fully discharge its repayment obligation for the Teton Exchange Well and associated facilities.

The Preferred Alternative

Reclamation intends to transfer title transfer as described in Alternative B. This alternative would fully comply with the Fremont-Madison Conveyance Act and would allow FMID to operate more independently and efficiently in its operation and maintenance of the facilities. It is also consistent with the Federal government's initiative to work better and cost less.

Environmental Commitments

As part of the environmental assessment, Reclamation analyzed the potential effects of title transfer on the human environment. By regulation (36 CFR 800), title transfer is considered to adversely affect cultural resources. This section summarizes mitigation measures for these adverse effects. Implementation of these mitigation activities will be required prior to or as part of the proposed title transfer.

Alternative B includes the transfer of title to some facilities that are designated or may be eligible for designation as historic properties. Federal law and regulation define "historic properties" to include prehistoric and historic sites, buildings, structures, districts, and objects that are included in or eligible for inclusion in the National Register of Historic Places. When a historic property is in Federal ownership, the agency must seek alternatives that would avoid or minimize adverse effects. Thus, Federal title provides a measure of protection to historic properties, and when title leaves Federal control, the loss of protection constitutes an adverse effect.

A Reclamation-sponsored Class III cultural resources survey identified 23 historic properties. Reclamation and the Idaho State Historic Preservation Officer (SHPO) agreed that Reclamation would mitigate the adverse effect on historic property through submission of site records, a final survey report, and photographs. Reclamation completed these measures on May 5, 2003.

Reclamation found no other adverse environmental effects requiring mitigation during the analysis.

Consultation and Coordination

During the environmental assessment process, Reclamation coordinated and consulted with other groups and agencies. This section briefly describes these activities.

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) (as amended in 1992) requires that Federal agencies consider the effects that their actions have on historic properties. To comply with Section 106 of NHPA, Federal agencies must consult with the SHPO, Native American tribes with a traditional or culturally significant religious interest in the study area, and the interested public to identify and evaluate the significance of historic properties and the project's effect on them. The Federal agency must then mitigate adverse effects the project may cause on significant resources.

In the fall of 2002, Sagebrush Consultants performed a Class III cultural resource survey of the study area. Reclamation then began consultations with the Idaho State Historical Preservation Officer. On April 3, 2003, Reclamation sent a letter to the Advisory Council on Historic Preservation and invited its participation in the consultation with the SHPO. The Advisory Council declined to join the consultation. The Idaho SHPO determined that Reclamation's submission of site records, a final survey report, and photographs meet the requirements for mitigation.

Endangered Species Act Section 7 Consultations

The Endangered Species Act requires all Federal agencies to ensure that their actions do not jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat. On December 6, 2001, Reclamation sent letters to U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) to request current lists of listed and proposed species for the area that may be affected by the transfer of title. Reclamation concludes that title transfer will have no effect on USFWS listed species and may affect but will not likely adversely affect NOAA Fisheries listed species in the Snake and Columbia Rivers. In a letter dated August 31, 2004, NOAA Fisheries concurred with Reclamation's determination (see Appendix G in the Final EA).

Drought Management Planning

The Conveyance Act requires the Secretary, in collaboration with interested stakeholders, to initiate a drought management planning process within 60 days of the Act's passage. The Conveyance Act also requires the Secretary to submit a report to Congress, including a final drought management plan, within 18 months of the Act's passage.

In October 2003, Reclamation, FMID, and several stakeholder organizations initiated discussions regarding the drought management planning process. Since that time, various members of the Henry's Fork Foundation, IDFG, The Nature Conservancy, FMID, Fall River Electric, Reclamation, Trout Unlimited, and others attended several informal meetings. These discussions are ongoing.

Tribal Coordination and Consultation

Reclamation has sought to keep Tribes informed regarding proposed title transfers and specifically the proposed Fremont-Madison Title Transfer. Reclamation has met with and/or corresponded with the Shoshone-Bannock Tribes, the Shoshone-Paiute Tribes of the Duck Valley Reservation, the Northwest Band of the Shoshone Nation, and the Nez Perce Tribe regarding various Reclamation initiatives, including title transfer.

Public Comments during the Scoping Process and Reclamation's Responses

Reclamation and FMID have conducted scoping meetings, public information gatherings, and discussions with interest groups since 1996. The information Reclamation gathered from public outreach efforts, talking with stakeholders, meetings with appropriate Native American Tribes, and ongoing contacts with local, State, and Federal agencies helped Reclamation identify those issues to be addressed in the environmental assessment.

In December 2001, Reclamation sent out a scoping letter to a mailing list of interested parties. Reclamation received written comments from twenty interested individuals and groups. During the preparation of this environmental assessment, Reclamation focused on the respondents' issues and questions to, in part, determine if there were any significant effects. The subsections below highlight the respondents' primary themes and summarize Reclamation's findings from the environmental assessment.

Water Rights and Hydrology Issues

Several respondents asked about the effect additional wells may have on other surface and groundwater rights, including Tribal water rights. Reclamation's hydrologic analysis demonstrated that depletions to the Snake River at Lewisville do occur as a result of FMID exchange well pumping, and that these depletions are proportional to the exchange well pumping rates. If FMID were to drill additional exchange wells and increase groundwater pumping, there would be affects on irrigation users with prior rights to natural flows or storage in American Falls Reservoir.

The FMID transfer agreement includes the transfer of water right permits for 45 wells, although at this time the permits for 40 of these wells remain undeveloped. The transfer of these undeveloped permits by themselves does not affect downstream holders of natural flow or storage rights in American Falls Reservoir. In addition, should FMID choose to develop additional wells, it could be expected that a call would be made by the injured parties (possibly including Reclamation) seeking mitigation for injury. The mitigation would thereby have the effect of preventing or eliminating any significant impacts of additional well development. This is consistent with a March 15, 2002, Memorandum of Agreement between FMID, the Twin Falls Canal Company, and the North Side Canal Company, Ltd., wherein FMID agreed to limit additional well expansion to five to eight wells, which, along with the existing five wells, would provide the District with up to 80,000 acre-feet of water during the irrigation season in low water years. Further, FMID agreed to develop an IDWR-approved plan that mitigates any injury to other irrigation water users that is caused by the operation of the additional wells.

Water Use Issues

Some respondents were concerned about the loss of representation in water use issues. Reclamation notes that Idaho statutes and Idaho Department of Water Resources (IDWR) rules would continue to govern water uses and the future development of additional wells. The State and other potentially affected water rights holders would retain their representation in water issues through the development process that requires an assessment of impacts and the development (if necessary) of mitigation plans.

Another respondent asked about the use of well water for fish and wildlife benefits. Reclamation's analysis shows that though the water right does not permit well water use specifically and primarily for fish and wildlife benefits, well pumping during low-water periods would increase or sustain habitat in areas directly affected by the supplemental flows such as Cartier Slough.

Public Access

Some respondents were concerned that the transfer of title to the Cross Cut Diversion Dam would limit public access. Reclamation determined that public access to the two unimproved boat ramps for recreation would not change.

Hydroelectric Plant at Cross Cut Diversion Dam

Reclamation determined that because the hydroelectric plant could be constructed regardless of ownership of the diversion, and because the project would require FERC licensing for construction and operation, title transfer would have no effect on the possibility of a hydroelectric plant at Cross Cut Diversion Dam.

Economic Valuation and Compensation

Some respondents were interested in the economic value of the facilities proposed for transfer. FMID has already repaid its obligation to the government for the Cross Cut Diversion Dam and the Cross Cut Canal. FMID is still repaying its obligation for the Teton Exchange Wells, and upon Reclamation signing a quit claim deed, FMID would remit a payment of \$250,961 to fully discharge its repayment obligation for the Teton Exchange Wells and associated facilities.

Unauthorized Project Water Use

The Conveyance Act increases the acreage within the District eligible to receive water from the Minidoka Project and the Teton Basin Project to reflect the over 285,000 acres of land that currently receive project water within the District. Reclamation determined that there are no other acres that receive or will receive additional water if title is transferred.

Comments to the Draft Environmental Assessment and Reclamation's Responses

Reclamation received comments from the Idaho Water Users Association, the Idaho Department of Environmental Quality, and the Greater Yellowstone Coalition. The Final EA includes the public comments in Appendix I.

Reclamation also received a letter of concurrence from NOAA Fisheries (Appendix G in the Final EA contains this letter). Because Reclamation determined there were no effects to threatened or endangered plants or animals listed by USFWS, Reclamation does not need USFWS concurrence.

The Idaho Water Users Association's comment letter expressed full support for title transfer. In its letter, the Idaho Department of Environmental Quality notes they did not identify any water quality issues associated with the environmental assessment. The Greater Yellowstone Coalition letter did comment on several issues. These next several subsections present the Greater Yellowstone Coalition comments and Reclamation's responses to each comment.

Comment 1

“NEPA requires the consideration of a reasonable range of alternatives when evaluating a proposed project. The Title Transfer Draft EA presents just two alternatives, the No Action alternative and the Proposed Alternative of title transfer as described in the

Fremont-Madison Conveyance Act. The consideration of just two alternatives is not in compliance with NEPA, and is therefore unacceptable.”

Response

The Council on Environmental Quality regulations for implementing NEPA require that alternatives be considered where they are unresolved conflicts concerning alternative uses of available resources. In this case, the proposed Federal action implements the provisions of the Conveyance Act. Alternatives (other than the required No Action alternative) that would not implement the Conveyance Act were eliminated during the scoping process as unreasonable.

Comment 2

“For example, one reasonable alternative would be the transfer of the Cross-cut Canal, but not the wells, or vice versa. Another reasonable alternative would be Cross-cut Canal, but only two or three wells.”

Response

Reclamation recognizes there are numerous conceivable alternatives that include title transfer for various combinations of facilities. However, the Conveyance Act requires that all identified facilities be transferred. Our analysis indicates that transferring ownership of the requested facilities will not create a physical impact to the environment, violate treaty rights, unduly affect economically disadvantaged populations, or adversely disrupt the local or regional economies. Therefore, considering alternative combinations of wells, canal, or diversion facilities is not needed for the purpose of understanding the impacts caused by the implementation of the project.

Comment 3

“The crux of the problem is that in the case of this proposal the NEPA process has come after the transfer was completed, likely negating any reason to look at a reasonable range of alternatives.

“With the presentation of just two alternatives, it seems that this EA is merely a paper exercise. As we have pointed out for several years the NEPA process should have come before the completion of the title transfer. At this point, public input means little more than fulfilling a requirement of the Act and does nothing to affect the ultimate decision, nor provide the public with the full disclosure of the impacts until after the fact.”

Response

The Secretary has not yet transferred title for the requested facilities. Section 6 of the Conveyance Act says, “Prior to conveyance the Secretary shall complete all environmental reviews and analyses as set forth in the Memorandum of Agreement referenced in section 3(a).” Section 3(a) specifically refers to transfer analysis and documentation.

The Conveyance Act requires the Secretary to transfer the described facilities. Before Reclamation can take action to implement this law, it first must complete the NEPA process. This environmental assessment precedes the transfer of title; the transfer of title is contingent on either a finding of no significant impact or a full environmental impact statement and record of decision.

Changes to the Final Environmental Assessment

Reclamation made some revisions to Section 3.2 (Hydrology), Section 3.3 (Power Generation), and Section 3.12 (Endangered Species). The two tables in the Power Generation section (Tables 4 and 5) were moved into the Hydrology section’s Alternative B Environmental Consequences. Four additional paragraphs in this section more clearly describe the modeled flow reductions at the Lewisville and Milner gages on the Snake River. Two additional paragraphs in the Endangered Species section’s Alternative B Environmental Consequences show more clearly how these modeled flow reductions may affect but are not likely to adversely affect listed anadromous fish in the lower Snake and Columbia Rivers.

Reclamation also updated the distribution list, updated Appendix G to include the NOAA Fisheries letter of concurrence, and added Appendix I to present the comments received on the draft environmental assessment and Reclamation’s responses to those comments.

There were no other substantive changes made to the Draft EA in the development of the Final EA. Reclamation did incorporate editorial revisions to clarify aspects of the document and to ensure accuracy.

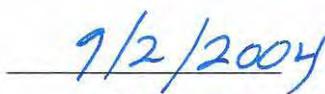
Finding

Reclamation’s environmental assessment for the proposed title transfer shows that the proposed action will have no significant effect on the human environment. Reclamation therefore concludes that preparing an environmental impact statement is not required.

Approved



Mr. Jerrold D. Gregg
Snake River Area Manager



Date

RECLAMATION

Managing Water in the West

Final Environmental Assessment
Fremont-Madison Irrigation District
Proposed Title Transfer

Minidoka Project, Idaho-Wyoming
Teton Basin Project, Idaho



U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Snake River Area

September 2004

LANDS OF
FREMONT-MADISON IRRIGATION DISTRICT

-  Rivers/Lakes
-  Streams
-  Lands of FMID
-  Hydro
-  TR
-  Sec



Total Acres : 285,337.3
Date Prepared: 4-29-04
Fremont-Madison Irrigation District
Prepared by: LaDonna Henman

0 4 8 Miles

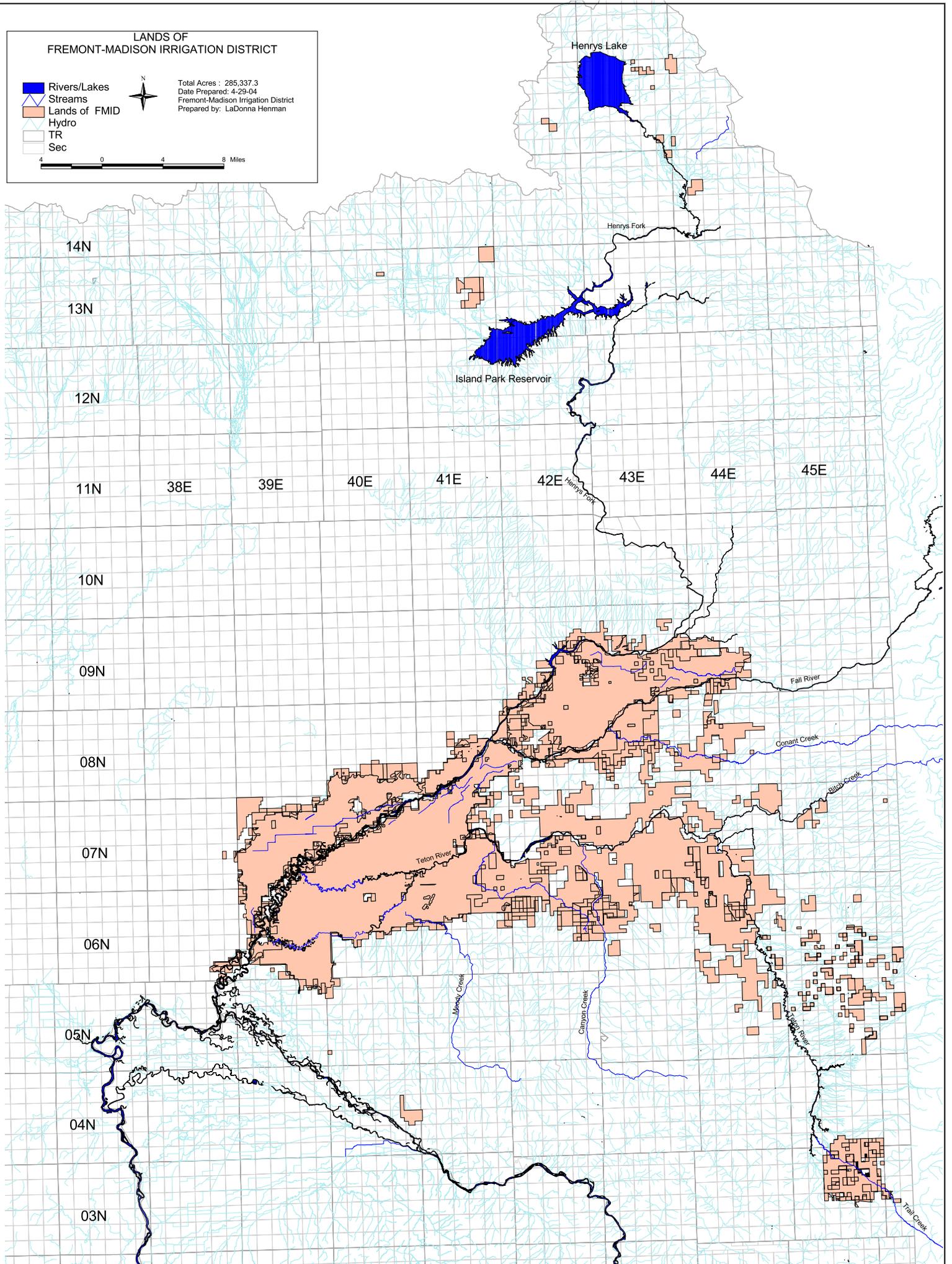


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- Appendix E. Transfer of Title of United States Ownership Interests in Cross Cut Diversion Dam and Canal, and the Teton Wells, to the Fremont-Madison Irrigation District; May 5, 2003, letter to Ms. Suzi Neitzel, Deputy State Historical Preservation Officer.
- Appendix F. Memorandum of Agreement with the Idaho State Historic Preservation Officer
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Chapter 1 INTRODUCTION

For several years, the Bureau of Reclamation (Reclamation) has conducted a program of transferring ownership of certain Federal irrigation facilities to project beneficiaries who are capable of managing the facilities and where the Federal investment in the facilities has been repaid.

Fremont-Madison Irrigation District (FMID) is a political subdivision of the State of Idaho, organized in 1935 under State law by the landowners served by Reclamation's Upper Snake River Storage Division, Minidoka Project, and the Lower Teton Division, Teton Basin Project, located in Fremont, Madison, and Teton Counties, Idaho. The projects' facilities, developed and owned by the United States, provide irrigation water to FMID.

The Fremont-Madison Conveyance Act (Public Law 108-85, enacted on September 30, 2003) directs the Secretary of the Interior (the Secretary) to transfer all right, title, and interest of the United States in certain facilities, land, and a water right permit of the Minidoka and Teton Basin Projects to FMID pursuant to the terms of the Memorandum of Agreement between FMID and Reclamation. Appendix A contains the Conveyance Act, and Appendix B contains the Memorandum of Agreement contract 1425-01-MA-10-3310, as amended.

The Conveyance Act also increases the acreage of District lands eligible to receive water from the Minidoka and Teton Basin Projects to the number of acres within the District as of September 30, 2003. This increase includes lands annexed into the District in anticipation of the completion of the Teton Basin Project.

This environmental assessment (EA) documents Reclamation's analysis of the effects of transferring title of specific irrigation facilities, appurtenant lands, and associated rights to FMID. The Conveyance Act states that if this transfer has not occurred by September 13, 2004, the Secretary shall submit a report to the Congress explaining the reasons that conveyance has not been completed and stating the date it will be completed.

1.1 Background

The Upper Snake River Storage Division of Reclamation's Minidoka Project and the Lower Teton Division of Reclamation's Teton Basin Project consist of Grassy Lake

1.2 Purpose and Need for Action

Dam in Teton County, Wyoming; Island Park Dam, Cross Cut Diversion Dam (also known as Chester Diversion Dam), and Cross Cut Canal in Fremont County, Idaho; and five exchange wells in Madison and Fremont Counties, Idaho, together with all pumps, panels, and water rights associated with these wells, and additional undrilled wells described in the State of Idaho water right permit #22-7022. These wells, pumps, panels, and water rights are hereafter collectively referred to as “Teton Exchange Wells.” FMID currently operates and maintains these facilities in concert with Snake River system operations above Milner Dam to provide irrigation water to approximately 285,337 acres within the District boundaries.

In 1996 FMID requested title to District facilities, including Island Park Dam and Grassy Lake Dam. However, after several public meetings and discussions with various interest groups, FMID determined that transfer of the two dams was not appropriate at present and redrafted the title transfer request.

1.2 Purpose and Need for Action

The purpose of the Proposed Action is to implement the Conveyance Act, which requires the Secretary to transfer ownership of certain Reclamation facilities to FMID. Congress has recognized that FMID has effectively operated, maintained, and managed the District’s water resources and facilities since inception in the 1930s. FMID has also satisfied the construction obligations for the diversion dam and canal.

Reclamation’s title transfer initiative implements the National Performance Review goal of a Federal government that works better and costs less. This action will allow FMID to be more efficient in its operation and maintenance of the transferred facilities consistent with its legal and fiduciary responsibilities.

1.3 Location and Setting

The Fremont-Madison Irrigation District provides a supplemental water supply to some 1,500 water users irrigating over 285,000 acres associated with the original Upper Snake River Storage Division of the Minidoka Project and the Lower Teton Division of the Teton Project. FMID lands encompass areas of Fremont, Madison, and Teton Counties in eastern Idaho (see Figure 1).

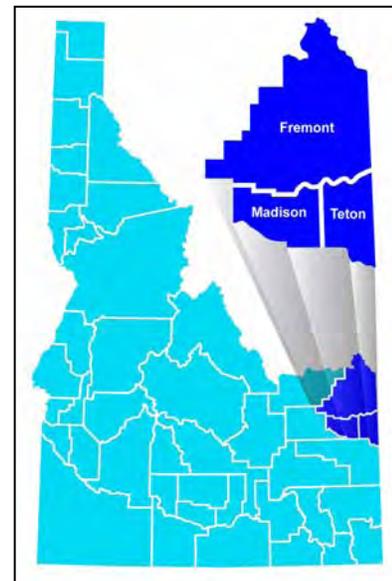


Figure 1. Fremont, Madison, and Teton Counties, Idaho.



Figure 2. Cross Cut Diversion Dam.



Figure 3. Cross Cut Canal radial headgate.

The Cross Cut Diversion Dam is located on the Henrys Fork of the Snake River between Ashton and St. Anthony, immediately below the confluence with the Fall River. This concrete structure diverts water into the Cross Cut Canal on the left bank and the privately-owned Last Chance Canal on the right bank. The Cross Cut Canal travels approximately 6.6 miles in a south-southwesterly direction before flowing into the Teton River near Newdale. Figure 2 and Figure 3 show these facilities.

The Teton Exchange Wells are all west of State Highway 20 in Fremont and Madison Counties. Well 1 discharges into Cartier Slough, which ultimately discharges into the Henrys Fork. Wells 2 and 5 discharge directly into the Henrys Fork. Well 3 discharges into the South Teton River. Well 4 discharges into the North Branch Independent Canal before entering the Henrys Fork.

1.4 Project and Facilities Descriptions

The Conveyance Act directs the Secretary to convey all right, title, and interest of the United States in those canals, laterals, drains, other components of the water distribution and drainage system that FMID operates and maintains. These facilities are within the Minidoka and Teton Basin Projects.

1.4.1 Relevant Upper Snake River Storage Division, Minidoka Project, Facilities

Reclamation built the Cross Cut Diversion Dam and Cross Cut Canal as part of the Minidoka Project. The original purpose of the Upper Snake River Storage Division was to store water from the upper Snake River basin for irrigation and other uses.

1.4 Project and Facilities Descriptions

Table 1. Relevant facilities in the Upper Snake River Storage Division, Minidoka Project.

Facility	Description
Cross Cut Diversion Dam	Type: Concrete gravity dam with an ogee overflow Constructed: 1938 Height: 17 feet Hydraulic height: 10 feet Weir crest length: 355 feet Total length: 457 feet Crest elevation: 5040.5 feet Headworks: Two (left and right abutments)
Cross Cut Canal and Headworks	Headworks: Cable-operated, gasoline-powered radial gate Length: 6.6 miles Discharge location: Teton River near Newdale Capacity: 591 cfs at headworks; 759 cfs above North Branch Canal where the Fall River discharge water enters Other: Numerous checks, turnouts, crossings, bridges, and flumes

Table 1 identifies the relevant facilities in the Upper Snake River Storage Division, Minidoka Project. There are no associated water rights in this transfer.

Natural flow of the Snake River and some of its tributaries, as well as water stored in reservoirs (Jackson Lake, Palisades Reservoir, Grassy Lake, Island Park Reservoir, American Falls Reservoir, and Lake Walcott) are delivered at numerous diversion points to the A & B, Falls, Burley, and Minidoka Irrigation Districts, American Falls Reservoir District No. 2, and a number of supplemental supply contractors, including FMID.

The Cross Cut Canal conveys storage water to users on the Teton River and natural flow water to some of the lands within the Fall River Irrigation Company system. A portion of the Cross Cut Canal was constructed on an easement through the already existing Fall River Canal. FMID has operated and maintained the canal since it was built. FMID and FRIC jointly employ a watermaster to manage canal operations and maintenance needs.

As indicated, FMID provides a supplemental water supply to approximately 1,500 water users irrigating over 285,000 acres of land originally associated with the projects. To deliver storage water to its spaceholders, FMID uses numerous canal companies that either existed prior to FMID's creation or are successors in interest of these original canal companies. These canal companies supply the natural flow water (primary water supply) to lands of their shareholders. They also conduct their own operation and maintenance of their facilities. Several individual spaceholders not associated with canal companies receive their supplemental water directly from

FMID through their authorized diversions. These canal companies and individual spaceholders are hereafter collectively referred to as “Canal Companies.”

1.4.2 Relevant Lower Teton Division, Teton Basin Project, Facilities

In the early 1970s, Reclamation applied for a State of Idaho permit to drill up to 45 wells to serve the Lower Teton Division of the Teton Basin Project. These wells were to be operated in dry years to supplement the surface water supply from the Teton Reservoir and to mitigate impacts from the proposed Teton Dam to downstream water users. As a test, Reclamation drilled five wells to determine if sufficient water existed and how many of the 45 wells would be needed to serve the Lower Teton Division. When the Teton Dam failed in June 1976, the five test wells became the only supplemental water source available to irrigate the lands affected by the dam’s failure. Table 2 identifies the relevant facilities and properties of the Teton Exchange Wells in the Lower Teton Division, Teton Basin Project.

Table 2. Description of the Teton Exchange Wells.

Well	Well Name	Location	Depth (feet)	Casing Diameter (inches)	Casing Depth (feet)	Production Zone Basalt Thickness (feet)	Water Depth (feet)	Capacity in gallons per minute-gpm (cfs)
1	Beaver Dick	25-6N-38-E	685	30	450.6	234	18.05	9500 (21.2)
2	Salem Well	19-7N-40E	394	20	198.5	196	30.83	7500 (16.7)
3	Golf Course	23-6N-39E	426	24	245	181	25.91	4300 (9.6)
4	Egin Well	16-7N-39E	503	22	255.6	247	59.51	7500 (16.7)
5	Fisher Well	34-7N-39E	410	24	156.7	253	11.35	8500 (18.9)
6-45 ¹	Undeveloped	na	na	na	na	na	na	na

¹ These 40 undeveloped wells are included in the State of Idaho water right permit #22-7022 (dated April 23, 1969).

On September 17, 1977, FMID and Reclamation entered into a contract to allow the use of the wells as a backup water supply in low water years. The contract requires an annual payment of \$9,000 for use of the wells, pumps, motors, and appurtenant facilities over a 25-year period. FMID pays all operation, maintenance, power, and replacement costs. The Fremont-Madison Conveyance Act extends this contract until all conditions in the Conveyance Act are fulfilled. During low water years, FMID pumps water from the wells into the Henrys Fork, the Teton River, and the North Branch Independent Canal to increase its supplemental water supply. The five wells currently provide up to 30,000 acre-feet annually during the irrigation season.

1.5 Regulatory Compliance

Various laws and Executive Orders apply to the Proposed Action. A summary of major laws and Executive Orders follows.

1.5.1 National Environmental Policy Act

The Conveyance Act requires the Secretary to complete all environmental reviews and analyses identified in the Memorandum of Agreement between FMID and Reclamation; this includes compliance with the National Environmental Policy Act of 1969 (NEPA). The NEPA process is used to determine whether or not there are significant adverse impacts to the environment associated with proposed Federal actions (in this case, title transfer). If there are no significant environmental impacts, a Finding of No Significant Impact (FONSI) can be signed to complete the NEPA compliance.

1.5.2 Endangered Species Act

The Endangered Species Act (ESA) requires all Federal agencies to ensure that their actions do not jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat. As part of the ESA's "Section 7" process, an agency must request species lists from the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) that identify threatened and endangered species within or near the action area. The agency then must evaluate impacts to those species. If the action may impact any listed species, the agency must consult with USFWS or NOAA Fisheries.

1.5.3 Secretary's Native American Trust Responsibilities

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for Indian Tribes, Nations, or individuals. The Secretary is the trustee for the United States on behalf of Indian Tribes. All Department of the Interior agencies share the Secretary's duty to act responsibly to protect and maintain ITAs reserved by or granted to Indian Tribes, Nations, or individuals by treaties, statutes, and Executive Orders. These rights are sometimes further interpreted through court decisions and regulations. Examples of ITAs are lands and minerals; hunting, fishing, and gathering rights; and water rights. The Department of the Interior carries out its activities in a manner that protects ITAs and avoids adverse impacts when possible.

1.5.4 National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 requires that Federal agencies take into account the effect of an undertaking on any properties included in or eligible for inclusion in the National Register of Historic Places, and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. The “Protection of Historic Properties” (36 CFS Part 800) defines the process of implementing requirements of Section 106, including procedures for determining project effects and mitigating adverse effects on historic properties, in consultation with the appropriate State Historic Preservation Office, the ACHP, relevant Tribes, and other parties.

1.5.5 Executive Order 13007: Indian Sacred Sites

Executive Order 13007, dated May 24, 1996, instructs Federal agencies to promote accommodation of access to and protect the physical integrity of American Indian sacred sites. A “sacred site” is a specific, discrete, narrowly delineated location on Federal land. An Indian tribe or an Indian individual determined to be an appropriately authoritative representative of an Indian religion must identify a site as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion.

1.5.6 Executive Order 12898: Environmental Justice

Executive Order 12898, dated February 11, 1994, instructs Federal agencies to make achieving environmental justice part of its mission. Agencies must address disproportionately high and adverse human health or environmental effects on minority populations and low-income populations. Environmental justice means the fair treatment of people of all races, incomes, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no person or group of people should shoulder a disproportionate share of negative environmental impacts resulting from the execution of environmental programs.

1.5.7 Reclamation Reform Act

In 1982, Congress passed the Reclamation Reform Act, which imposes an acreage limitation for water users and requires districts to complete water conservation plans. Under certain conditions, farmers can receive Reclamation project water on additional acreage, but they must first pay the full cost of the water, including both capital and interest components. Reclamation periodically reviews FMID’s compliance with RRA provisions. If title is transferred and the construction

1.6 Similar or Related Actions

obligation for the Teton Exchange Wells is fully repaid, the acreage limitation provisions would no longer apply to that water supply.

1.6 Similar or Related Actions

There are three other transfer-of-title actions that have occurred or are in progress within Reclamation's Snake River Area Office administrative boundaries.

- The Burley Irrigation District (Minidoka Project) received title to all district facilities, lands, rights-of-way, and water rights on February 24, 2000. Transferred facilities included pumping plants, canals, drains, laterals, roads, pumps, checks, headgates, transformers, pumping plant substations, and buildings. Also transferred were other improvements, appurtenances to the land, and those used for the delivery of water from the headworks (but not the headworks themselves) of the South Side Canal at the Minidoka Dam to land in the district.
- The Nampa-Meridian Irrigation District (Boise Project) received title to distribution, conveyance and drainage facilities, and rights-of-way on July 13, 2001. The district did not request transfer of water rights.
- The American Falls Reservoir District No. 2 (Minidoka Project) is currently seeking title to Milner-Gooding Canal and various Reclamation lands. The district is not requesting transfer of water rights.

Chapter 2 DESCRIPTION OF THE ALTERNATIVES

This environmental assessment addresses two alternatives: the No Action alternative and the Proposed Action of title transfer as described in the Fremont-Madison Conveyance Act. Regulations require the action agency to consider a No Action alternative for comparative analysis purposes.

2.1 Alternative A – No Action

Under the No Action alternative, the United States would retain title to all facilities, and FMID would exercise its option to renew its current Teton Exchange Wells water service contract written pursuant to Section 9(e) of the 1939 Act or convert to a repayment contract under Section 9(d) of the 1939 Act. Under a water service contract, FMID and Reclamation would agree to a fixed yearly assessment for use of the Teton Exchange Wells. This assessment would continue until the costs of the wells were paid off. By statute, the contract length can be up to 40 years; the contract would need to be renewed periodically. Under a repayment contract, FMID and Reclamation would agree to a yearly repayment amount. A repayment contract would not need to be renewed; as long as both parties agreed, repayment contracts would extend into perpetuity, even if the construction obligation was satisfied. The environmental effects of these two contracting methods are identical.

FMID would continue to operate and maintain the five existing exchange wells in the future in much the same way that it has in the past. Currently, FMID operates the exchange wells in low water years if rental pool water is not otherwise available. This alternative assumes that in the future, rental pool water would be available to FMID irrigators under approximately the same conditions that existed between 1977 and 2002. Operations of Island Park Reservoir would not change.

Reclamation would take the necessary actions under Idaho State law to prove beneficial use for the five developed wells. By doing so, Reclamation would relinquish to the Idaho Water Resource Board the undeveloped portion of the permit. Reclamation has requested extensions for this water right permit in the past and would likely request an additional extension to complete the proving process before the permit expires.

FMID would be fully responsible for the administrative costs of renewing or converting the contract and complying with NEPA and ESA requirements. FMID's

2.2 Alternative B – Title Transfer

operation of the facilities, its relationship with Reclamation, and Reclamation's oversight of FMID would continue unchanged. FMID would remain eligible to request assistance through Federal programs.

2.2 Alternative B – Title Transfer

The Proposed Action would implement the provisions of the Fremont-Madison Conveyance Act (see Appendix A). This Act directs the Secretary to convey to FMID “all right, title, and interest of the United States in and to the canals, laterals, drains, and other components of the water distribution and drainage system.” This includes lands and facilities associated with the Cross Cut Diversion Dam, Cross Cut Canal, and the Teton Exchange Wells, pursuant to the Memorandum of Agreement between Reclamation and FMID, as amended (see Appendix B). The major provisions of the Conveyance Act are described below. Only those provisions of the Conveyance Act that require a Federal action are included in this NEPA analysis.

2.2.1 Facilities and Lands

Included in the transfer are all rights, title, and interest of the United States in and to the canals, laterals, drains, and other components of the water distribution and drainage system that is operated or maintained by FMID for delivery of water to and drainage of water from lands within FMID boundaries (as modified by the Conveyance Act). Specific facilities are the Cross Cut Diversion Dam, Cross Cut Canal, and appurtenant acquired land and easements. Purposely omitted from legislation was the transfer of Island Park and Grassy Lake Dams.

Reclamation previously acquired approximately 20 acres in fee title and 63 acres of easement for the Cross Cut Canal. The land and easements are located under and along the canal in widths ranging from 100 to 150 feet, with varying widths on each side of the centerline.

2.2.2 Teton Exchange Wells

Also included in the transfer are the five existing Teton Exchange Wells and appurtenant equipment, acquired land, easements, rights-of-way, and State of Idaho water right permit #22-7022. Reclamation acquired approximately 3 acres in fee and 4 acres in easements for the wells. Two of the wells use BLM rights-of-way.

Under Idaho State water law, the permit-holder must complete construction of the project and submit to the Idaho Department of Water Resources (IDWR) “proof of beneficial use.” Following a field examination to confirm beneficial use, IDWR may

issue a license that the water appropriation has been complete. If a license is issued on water right permit #22-7022, the subsequent water right would have the priority date of April 23, 1969. Though only five exchange wells have been developed, the original permit anticipated up to 45 wells.

FMID has indicated that if title is transferred and if permitted by Idaho State water law, it may develop an additional five to eight wells, which, along with the existing five wells, would provide the District with up to 80,000 acre-feet of water during the irrigation season in low water years. In a March 15, 2002, Memorandum of Agreement between FMID, the Twin Falls Canal Company, and the North Side Canal Company, Ltd., FMID agreed to limit the wells' expansion to provide a maximum of 80,000 acre-feet per year during low water years. Appendix C contains a copy of this agreement. This agreement also stipulates that prior to developing additional wells, FMID shall develop an IDWR-approved plan that mitigates any injury to other irrigation water users that is caused by the operation of the additional wells.

This water volume would satisfy FMID's water requirements in the lowest water year in the 25-year period of record. Because the electrical costs for pumping could be significant, FMID would likely continue to use pumped water from the exchange wells as a last resort for supplemental water. The remaining undeveloped but permitted wells may be assigned to the Idaho Water Resource Board. These activities are discussed in detail in Chapter 3.

The proposed points of diversion for the permit are located within the boundaries of the Eastern Snake River Plain Aquifer, which currently has a court-ordered prohibition on new permits. Idaho statutes and IDWR rules would govern the future development of additional wells. This development process would follow the regulation and laws governing Idaho groundwater development, an assessment of impacts, and the development (if necessary) of mitigation plans.

Upon Reclamation signing a quit claim deed, FMID would remit a payment of \$250,961 to fully discharge its repayment obligation for the Teton Exchange Wells and associated facilities.

2.2.3 Limitations and Liability

As stated in the Conveyance Act, effective on the date of conveyance of the facilities, the United States shall not be liable for damages of any kind arising out of any act, omission, or occurrence relating to the conveyed facilities, except for damages caused by acts of negligence committed by the United States or by its employees, agents, or contractors prior to the date of conveyance.

2.2 Alternative B – Title Transfer

2.2.4 Water Supply to District Lands

The Conveyance Act increases the acreage within the District eligible to receive water from the Minidoka Project and the Teton Basin Project to reflect the over 285,000 acres of land that currently receive project water within the District. These include lands that the District annexed in anticipation of the completion of the Teton Basin Project and that currently receive project water. This Act does not provide for any additional Reclamation project water beyond that which is currently authorized under existing storage contracts, the State of Idaho water right permit #22-7022, or as allowed by State water law. Therefore, no acres within the FMID boundaries will receive additional water. As described in Section 2.2.2, the transfer of title would provide FMID an opportunity to develop additional wells within the existing threshold of the water right permit. The current storage contracts between Reclamation and FMID would remain unchanged.

Passage of the Fremont-Madison Conveyance Act legislatively increased the District acreage eligible to receive Project water. In the Conveyance Act, Congress ratified an existing condition (project water being used on lands outside the Federally recognized boundaries). However, Chapter 3 does discuss the potential effects of reasonable and foreseeable increases in consumptive water use on FMID lands.

2.2.5 Drought Management Plan

The Conveyance Act requires the Secretary to collaborate with Henrys Fork watershed stakeholder organizations to initiate a drought management planning process and to report to Congress on a proposed Drought Management Plan. This plan would include the outcome of discussions between FMID and participants in the Henry's Fork Watershed Council, which includes several local, State, and Federal agencies, private citizens, and non-governmental organizations. The current framework recognizes the various social, economic, and ecological uses and benefits of available water. All stakeholders in the watershed interested in protecting their interests have been encouraged to participate in this planning process. Section 4.1 describes Reclamation's involvement in the current planning process.

The drought management planning process is focusing on affected resources that are important economically, sociologically, and ecologically. Van Kirk (2004) said, in soon to be published research, that water storage, water law, and irrigation deliveries have altered river and stream hydrology in the Henrys Fork subbasin, and this alteration is highest during low water years and greatest in the upper portion of the basin.

Some ecological principles at the center of the planning process include the importance of flow shape over flow amount, the variety of hydrologic needs for

individual river reaches, and the importance of hydrologic extremes, such as peak flows to maintain channel and riparian processes (Van Kirk 2004). Economic issues concerning the water supply relate to irrigation, recreation, and associated businesses that require dependable water supplies. Socially, the Henrys Fork has world-renowned rainbow trout and is of national importance. The goal of the plan is to reduce hydrologic alteration, provide a more reliable water supply for FMID, increase Island Park hydroelectric output, provide these benefits during the driest third of years, and maintain current (near natural) peak flows in the lower Fall River and Henrys Fork.

FMID currently has an agreement in draft form committing it to working cooperatively with other interested groups in addressing stakeholder concerns during low water years.

This ambitious management plan is a collaborative effort and has thus far been developed by consensus among the watershed's stakeholders. This is not an agency action and is not subject to NEPA. If future actions require Reclamation involvement, additional NEPA compliance may be required.

2.2 Alternative B – Title Transfer

Chapter 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Water Rights

3.1.1 Affected Environment

Island Park Reservoir and Grassy Lake

Reclamation holds a water right with a March 14, 1935, priority date to store 135,000 acre-feet in Island Park Reservoir. Reclamation acquired several natural flow water rights when Island Park Reservoir lands were originally purchased. Reclamation transferred the points of diversion for these rights to the canals that serve FMID lands. Reclamation holds a Wyoming Certificate to a water right (Grassy Lake Permit No. 18685) for 15,204 acre-feet of Grassy Lake water with a February 13, 1936, priority date.

Water District 01 Rental Pool

When available, FMID acquires varying amounts of storage water from the Water District 01 Rental Pool to augment the Island Park Reservoir and Grassy Lake storage supplies. The Idaho Water Resources Board has appointed the Committee of Nine (the local Water District 01 advisory committee) to facilitate the rental of stored water pursuant to Idaho Code 42-1765. The Minidoka and Palisade Projects contracts allow spaceholders to rent water on an annual basis at rates approved by the Secretary.

FMID coordinates with Canal Companies to meet daily irrigation demands using water released from Island Park Reservoir and Grassy Lake as needed. The District works closely with both the watermaster and Reclamation to account for water use and to meet irrigation needs.

Teton Exchange Wells

As described in Section 2.2.2, Reclamation applied for a State of Idaho permit to appropriate water by drilling wells that would provide exchange water for the planned Lower Teton Division. Reclamation drilled five test wells in the mid-1970s. FMID and Reclamation entered into a contract on September 17, 1977, (#7-07-10-W0179) to allow FMID to use the wells as a backup water supply in low water years. The Conveyance Act extends this contract to the date that all conditions of the Act are fulfilled.

3.1 Water Rights

FMID uses several factors to determine when and how much water to pump from the Teton Exchange Wells. These factors include the storage allocation for Island Park Reservoir and Grassy Lake, the early April hydrologic forecast, spring precipitation, and requests for additional storage from Canal Companies within the District. Typically, FMID purchases water from the rental pool before commencing water exchange operations. While operating the exchange wells, FMID coordinates the timing of the pumping with the District 01 watermaster.

3.1.2 Environmental Consequences

Alternative A – No Action

Reclamation and FMID would continue the process for proving beneficial use for the permit for the existing five exchange wells. Reclamation has requested extensions for the permit in the past and would likely request an additional extension to complete the proving process before the permit expires. During the proving process, IDWR would exercise its discretion on whether to allow the remaining 40 wells from the permit to expire or to assign them to another entity. This reassignment would not require a legal notice if permit characteristics such as points of diversion, place of use, and purpose of use remain unchanged. Only in the notice process do other entities have the opportunity to protest. Upon completion of the proving process, Reclamation would hold the water right for the five existing wells.

Alternative B – Title Transfer

The United States would transfer title and the Teton Exchange Wells water right permit. FMID would prove beneficial use of the permit by November 1, 2007, or request an extension of time for beneficial proof. FMID may develop an additional five to eight Teton Exchange Wells before completing the proving process. However, the current water environment in eastern Idaho and the moratorium on water development in the Snake River Plain make the drilling of additional wells less likely than originally anticipated.

If FMID drills additional wells, the water would further help FMID meet demands during periods of low water. FMID declares its intent, in its Memorandum of Agreement with Reclamation (see Appendix B), to assign the unneeded and undeveloped portion of permit number 22-7022 to the Idaho Water Resource Board. Potential actions IDWR could take with the assigned portion of the permit would remain as described under No Action.

If FMID proves beneficial use for the well water, the State would likely grant FMID a water right. Section 3.2 provides a detailed analysis of this current and potential future water development. FMID would still be able to use the Water District 01 Rental Pool.

3.2 Hydrology

3.2.1 Affected Environment

Previous hydrologic investigations in the Eastern Snake River Plain have demonstrated that groundwater gains in the Henrys Fork contribute substantially to flows in the Snake River, especially during the irrigation season (Wytzes 1980; Johnson et al. 1985; USBR 1992; Garabedian 1992). The principal hydrologic concern is the impact of future Teton Exchange Well pumping on groundwater gains in the Henrys Fork, and in turn on the potential for depletions to Snake River flow.

Henrys Fork Flows in the FMID Service Area

Of the nine Hydromet gaging stations in the FMID service area, three are located on the main stem of the Henrys Fork of the Snake River. Six others are located on main tributaries to the Henrys Fork: two on the Fall River and four on the Teton River. In addition, there are Hydromet gaging stations on eleven major canals in the FMID service area; seven of these canals are between Ashton and Rexburg on the Henrys Fork, including the Cross Cut Canal, the Egin Canal, the St. Anthony Union Feeder, and the Independent Canal. Figure 4 shows the FMID service area boundaries, the three main gaging stations on the Henrys Fork, the five Teton Exchange Wells, and other area hydrologic features.

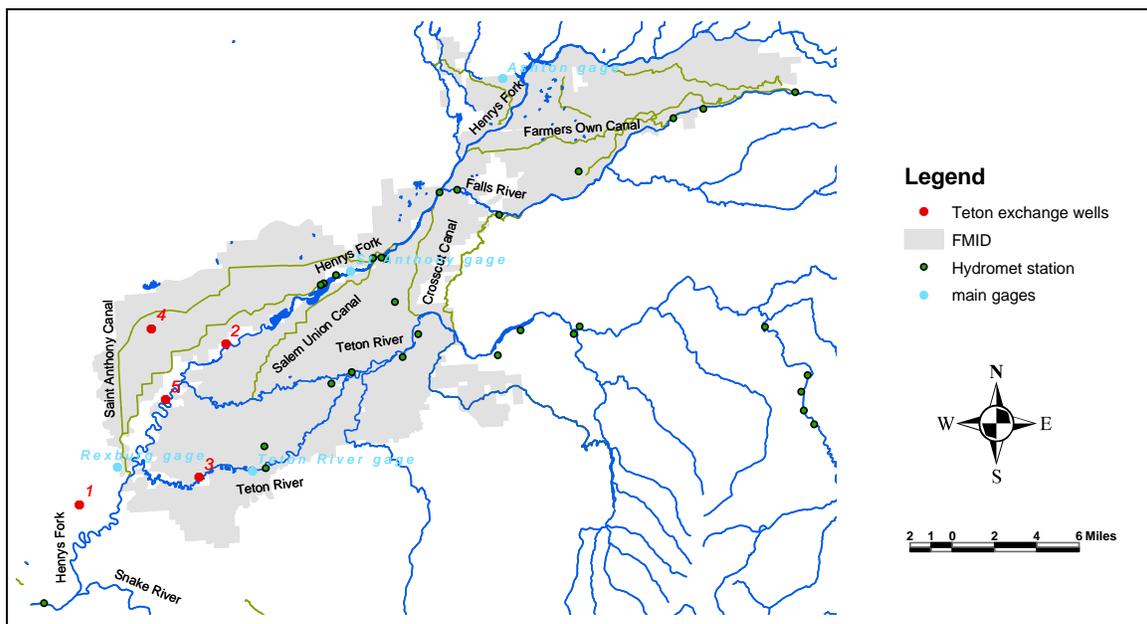


Figure 4. Location of gaging stations, major canals, and Teton Exchange Wells on and near the Henrys Fork of the Snake River.

3.2 Hydrology

The Ashton gaging station is just below Ashton Reservoir on the Henrys Fork. On average, about 1.25 million acre-feet of water pass this gage each year. A second gaging station adjacent to St. Anthony, Idaho, is about ten miles downstream from the Crosscut Diversion Dam. During the irrigation season, the Crosscut Canal conveys water from the river between these two gages to the Teton River. The Fall River also enters the Henrys Fork between these two stations. On average, approximately 1.59 million acre-feet of water pass the St. Anthony gage each year.

A third gaging station on the Henrys Fork is downstream from the South Fork of the Teton River, just west of Rexburg, Idaho. The North and South Forks of the Teton River enter the Henrys Fork between the St Anthony and the Rexburg gages. The Egin Canal, St Anthony Union Feeder Canal, Independent Canal, and the Consolidated Farmers Ditch also divert water from the river between the St. Anthony and Rexburg gages. On average, approximately 1.75 million acre-feet of water passes the Rexburg gage each year.

Figure 5 shows the average monthly flow hydrographs for these three Henrys Fork gaging stations. The flows are averages for the years 1977 through 2002. As this figure shows, the Henrys Fork reach between Ashton and Rexburg is a gaining reach for most of the year. Reach gains range from about 500 cfs in October to over 2,000 cfs in May. The exception to this gaining trend occurs during July, August, and September when the flows at Ashton are higher than those at St. Anthony and Rexburg. These reach losses occur because releases from Island Park Reservoir upstream from the Ashton gage are being diverted before they reach the St. Anthony gage. Some of this diverted water re-enters the river as irrigation return flow to the Henrys Fork or the Teton River. Overall, surface water returns from the FMID service area to the Henrys Fork are estimated to be about 5 percent of the total FMID diversion (Swensen 2003).

Figure 6 shows the contribution made by the Teton River to flow in the Henrys Fork. The contribution from the South Fork of the Teton River is accurately gaged at Rexburg. However, the contribution from the North Fork (which is gaged at Teton) is “adjusted” in this figure to reflect diversion estimates for the Teton Island Feeder Canal and other canals downstream from this gage (Swensen 2003). The combined average contribution from the North and South Forks of the Teton River ranges from less than 200 cfs during September to as much as 1,000 cfs during June.

Figure 7 shows the average daily flow hydrographs for these four main diversions from the Henrys Fork between St. Anthony and Rexburg: the Egin Canal, the St. Anthony Union Feeder, the Independent Canal, and the Consolidated Farmers Ditch. Historically, diversions to these canals were made year-around in order to sustain the groundwater level for sub-level irrigation in the Egin Bench area of the FMID. Average monthly diversions range from a low of 275 cfs during winter months to a high of almost 900 cfs during the irrigation season.

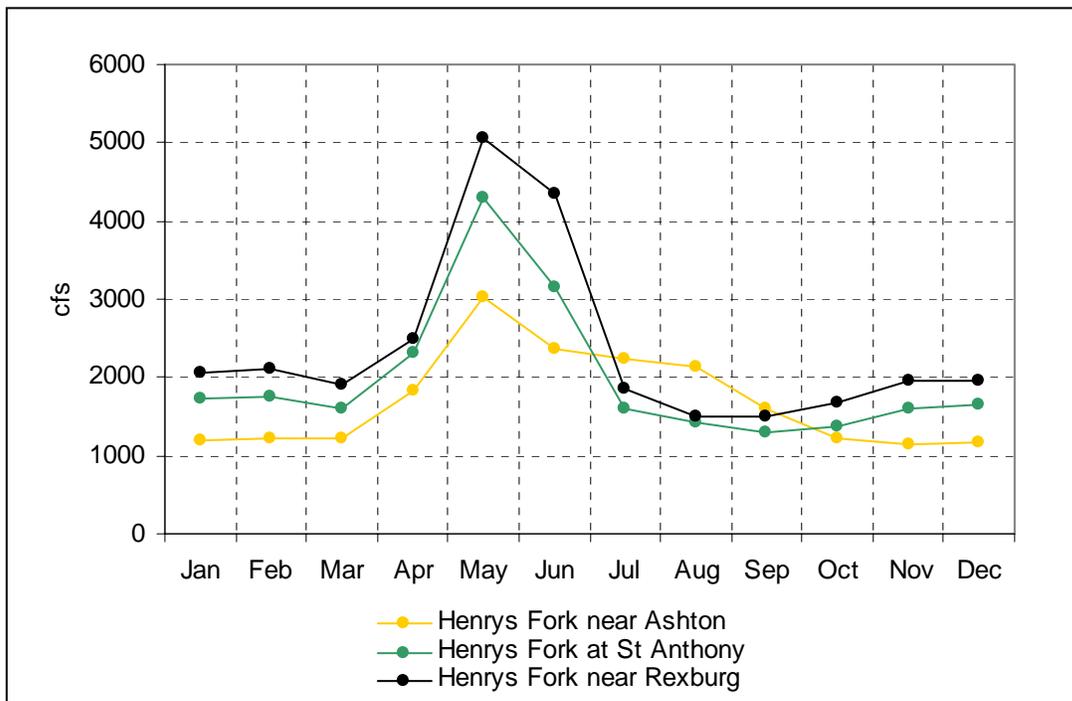


Figure 5. Average monthly flows at three gaging stations on the Henrys Fork of the Snake River from 1977 to 2002.

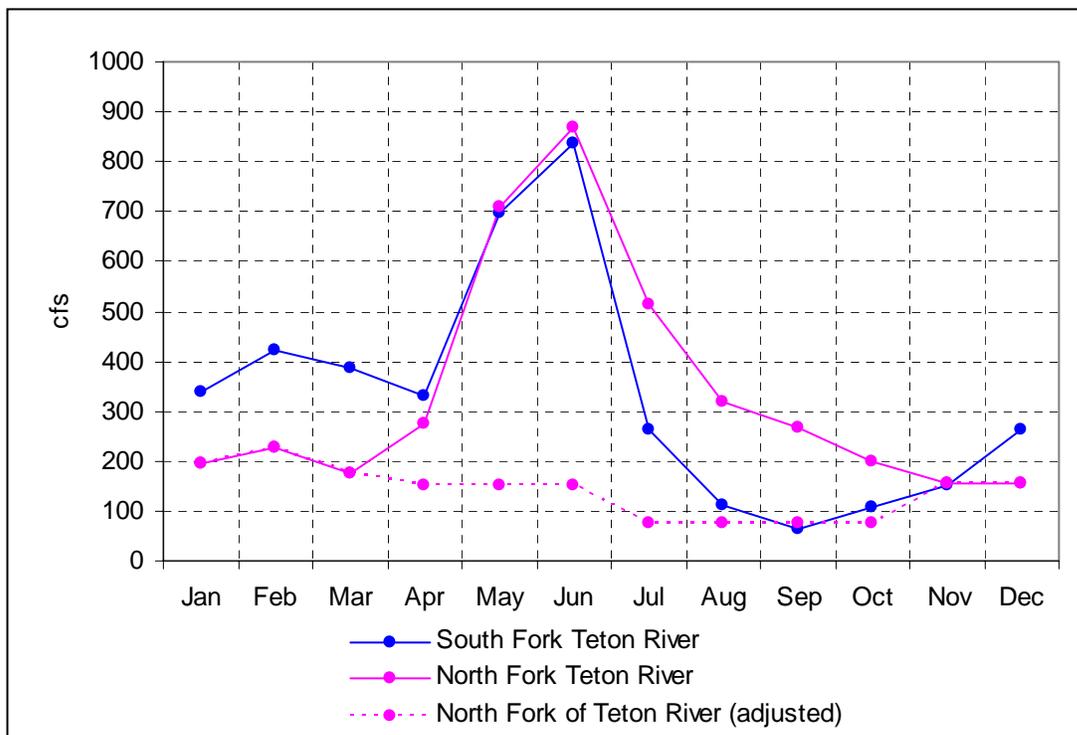


Figure 6. Average monthly flow in the Teton River (from gaging stations at Rexburg and Teton, respectively) from 1977 to 2002.

3.2 Hydrology

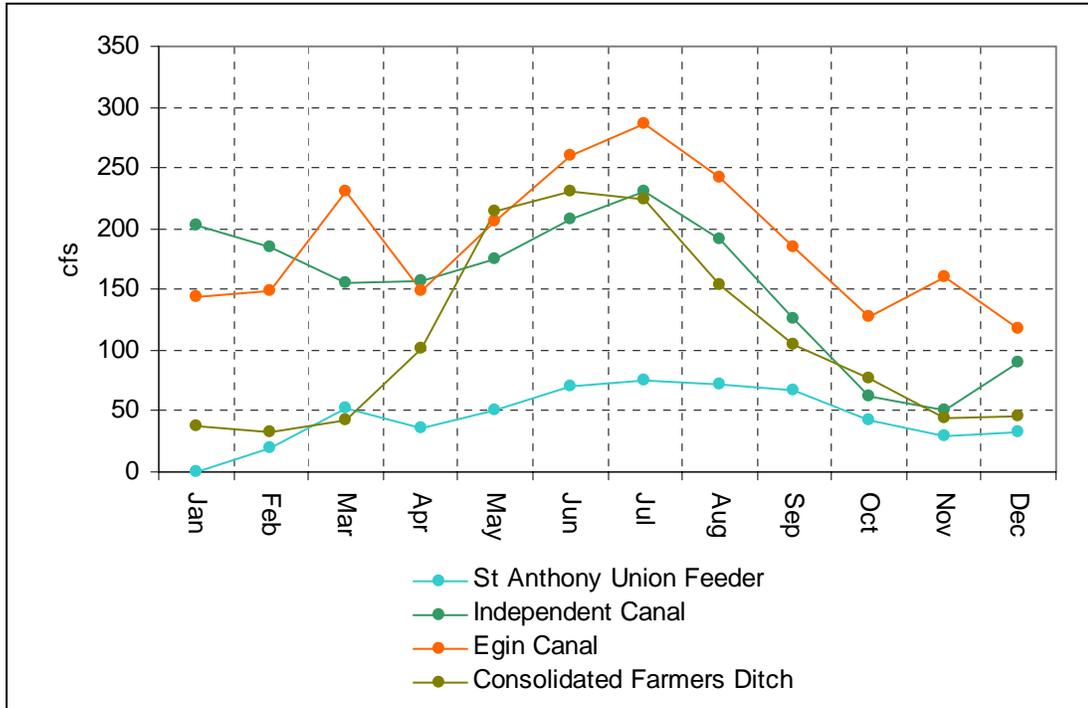


Figure 7. Combined average monthly flow in St. Anthony Union Feeder, Independent Canal, Egin Canal, and Consolidated Farmers Ditch from 1977 to 2002.

FMID manages its water delivery system based in part on the measured flows in the Henrys Fork at the St. Anthony gaging station. Because this station is immediately upstream from the four main irrigation canals (Egin Canal, St. Anthony Union Feeder Canal, Independent Canal, and Consolidated Farmers Ditch), it is a logical location to balance supply and demand within the District.

Groundwater Gains in the Henrys Fork

The average monthly groundwater contribution made to total reach gains between St. Anthony and Rexburg can be estimated using the previous hydrograph data and the following water balance expression:

$$\begin{aligned}
 \text{Henrys Fork groundwater gain} &= \text{Rexburg flow} - \text{St. Anthony flow} - \text{S. Fork Teton flow} - \text{(adjusted) N. Fork Teton flow} + \text{diversion to Egin Canal} + \text{diversion to St. Anthony Union Feeder} + \text{diversion to Independent Canal} + \text{diversion to Consolidated Farmers Ditch} - \text{estimated surface water return}
 \end{aligned}$$

Figure 8 shows the computation's results to illustrate the average monthly groundwater gain to the St. Anthony to Rexburg reach of the Henrys Fork between 1977 and 2002. This figure shows groundwater gains to the Henrys Fork ranging from 100 to over 900 cfs. Groundwater gains are lowest in the winter months, increase abruptly at the start of the irrigation season in May and June, and gradually taper off during the remainder of the season.

The fact that groundwater gains occur throughout the year demonstrates that the aquifer is hydraulically connected to the river in this reach. Also, these gains peak early in the irrigation season, suggesting that some of the groundwater flow paths between FMID irrigated lands and the Henrys Fork are relatively short.

FMID Operation of the Teton Exchange Wells

Essentially, the five Teton Exchange Wells provide mitigation to downstream water right holders and users for FMID's upstream diversions of reservoir water during years when a full FMID storage allocation in Island Park Reservoir is not available.

Two of the five Teton Exchange Wells discharge water directly into the Henrys Fork. The other wells discharge into the Cartier Slough, the Teton River, and the North Branch Independent Canal; water from these wells eventually travels into the Henrys Fork. All five exchange wells are located within 3 miles of the main stem of the Henrys Fork. Two of the five wells are within 1/4-mile of the river (see Figure 4).

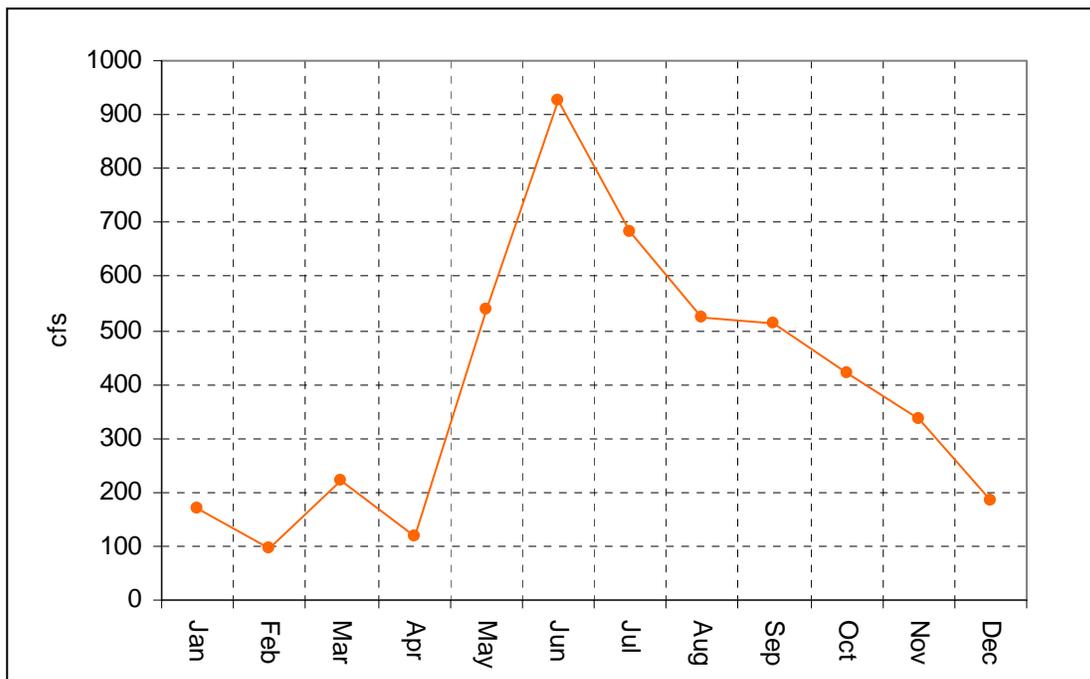


Figure 8. Computed average monthly gains from groundwater to the Henrys Fork reach between St. Anthony and Rexburg from 1977 to 2002.

3.2 Hydrology

Exchange well pumping has occurred in ten years since the use was authorized in 1977. Figure 9 and Table 3 show the chronology of exchange well pumping between 1977 and 2002. Figure 9 shows the total discharge from all five exchange wells in four-month intervals (referred to as trimesters) between 1977 and 2002. Table 3 shows the monthly discharge for each exchange well and the annual totals.

Although the Teton Exchange Wells have operated in 10 of the past 25 years, the wells were used much more extensively in some years than in others. For instance, just two of the wells were used to pump about 800 acre-feet in 1980, whereas all five of the wells were used to pump more than 29,000 acre-feet in 1992. In recent years, the exchange wells have been used more heavily. Just over 27,000 acre-feet were pumped in 2001, and nearly 25,000 acre-feet were pumped in 2002. The wells were also used in 2003, although discharge volumes are not yet available (Swensen 2003).

Teton Exchange Well pumping and FMID releases from Island Park Reservoir do not necessarily occur at the same time or at the same rate during the irrigation season. Over the course of a year however, the total amount of water FMID pumps from the Teton Exchange Wells meets or exceeds the volume of water they divert above the wells.

In addition to the five Teton Exchange Wells, there are 14 non-Project exchange wells within the FMID service area that discharge water into either the Fall River or the Teton River. The state of Idaho regulates the operation of these non-Project wells.

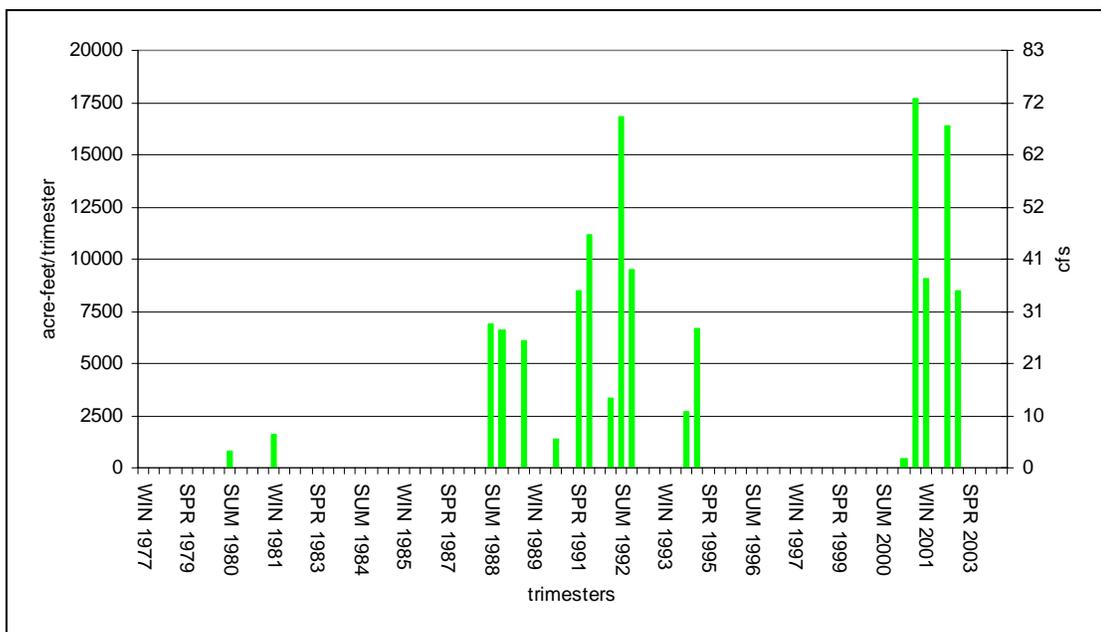


Figure 9. Total Teton Exchange Well pumping by trimester from 1977 to 2002.

Table 3. Teton Exchange Wells usage rates (in acre-feet) since 1977 (source: FMID 2003).

Year	Well	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Yearly Totals
1977-1979	No pumping occurred									NA
1980	1	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	293	0	0	293
	3	0	0	0	0	0	170	0	0	170
	4	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	334	0	0	334
Monthly Totals		0	0	0	0	0	797	0	0	797
1981	1	0	0	0	0	0	0	286	216	502
	2	0	0	0	0	0	0	249	232	481
	3	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	288	327	615
Monthly Totals		0	0	0	0	0	0	823	775	1598
1982-1987	No pumping occurred									NA
1988	1	0	0	0	0	487	1162	1125	450	3224
	2	0	0	0	0	397	1027	994	397	2815
	3	0	0	0	0	228	590	552	228	1598
	4	0	0	0	0	378	932	898	361	2568
	5	0	0	0	0	487	1162	1125	450	3224
Monthly Totals		0	0	0	0	1977	4873	4694	1886	13429
1989	1	0	0	0	0	413	825	0	0	1238
	2	0	0	0	0	662	728	0	0	1390
	3	0	0	0	0	381	419	0	0	800
	4	0	0	0	0	531	584	0	0	1115
	5	0	0	0	0	750	825	0	0	1575
Monthly Totals		0	0	0	0	2737	3381	0	0	6118
1990	1	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	680	679	0	0	1359
	5	0	0	0	0	0	0	0	0	0
Monthly Totals		0	0	0	0	680	679	0	0	1359
1991	1	885	1107	1144	1107	74	0	0	0	4317
	2	643	964	996	964	64	0	0	0	3631
	3	466	559	578	503	37	0	0	0	2143
	4	434	656	722	674	46	0	0	0	2534
	5	942	1805	2164	1982	140	0	0	0	7033
Monthly Totals		3370	5091	5604	5230	361	0	0	0	19658
1992	1	0	790	947	982	428	401	1101	1138	5787
	2	0	685	1021	934	985	1002	964	994	6585
	3	0	393	584	530	533	572	553	572	3737
	4	0	657	920	869	760	771	920	950	5847
	5	0	807	1193	1089	1145	1162	1125	1162	7683
Monthly Totals		0	3332	4665	4404	3851	3908	4663	4816	29639
1993	No pumping occurred									NA
1994	1	0	0	0	0	0	1002	1250	1291	3543
	2	0	0	0	0	0	225	964	996	2185
	3	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	325	1114	1077	1113	3629
Monthly Totals		0	0	0	0	325	2341	3291	3400	9357
1995-2000	No pumping occurred									NA
2001	1	0	86	794	1269	1290	1175	1317	1181	7112
	2	0	248	1002	970	1002	1002	970	1002	6196
	3	0	99	541	524	541	541	524	541	3311
	4	0	0	677	662	684	684	662	684	4052
	5	0	0	1089	1065	1101	1101	1065	1101	6522
Monthly Totals		0	433	4103	4490	4618	4503	4538	4509	27193
2002	1	0	0	1065	1481	1406	1378	1347	1394	8071
	2	0	0	731	991	990	829	931	909	5381
	3	0	0	438	520	576	550	533	557	3174
	4	0	0	235	320	317	299	300	306	1777
	5	0	0	821	1169	1151	1126	1083	1119	6469
Monthly Totals		0	0	3290	4481	4440	4182	4194	4285	24872

3.2.2 Environmental Consequences

Methods and Rationale

The impacts of exchange well pumping on reach gains in the Henrys Fork depends on the pumping rates of wells, their proximity to the river, FMID's supplemental diversions from Island Park Reservoir, and the resulting aquifer recharge. While groundwater pumping has a negative impact on reach gains, the additional aquifer recharge that results from supplemental diversions has a positive impact on reach gains. The net river depletion attributed to exchange well pumping and FMID's supplemental diversions is the sum of both positive and negative impacts.

The amount of aquifer recharge that results from supplemental diversions of Island Park Reservoir water is based on calculation of a net use factor for FMID irrigation. Cosgrove and Johnson (2000a) calculated FMID's net use factor for irrigation at 0.36, meaning that 36 percent of the water FMID diverts is consumptively used by crops. The remaining 64 percent either returns to the river via drains or infiltrates the aquifer. During low water years, when exchange well pumping occurs, drain returns to the river are negligible and aquifer infiltration accounts for nearly all of the irrigation water that is not consumptively used.

Even though most of the exchange well water is discharged directly into the Henrys Fork, this discharge by itself provides no net benefit to instream flows. The exchange well pumping simply replaces storage water that was released from Island Park Reservoir for irrigators downstream from FMID.

Estimating River Depletion from Exchange Well Pumping

The impact that exchange well pumping has on reach gains in the Henrys Fork between Ashton and its confluence with the Snake River at Lewisville is estimated using the Eastern Snake Plain Aquifer (ESPA) groundwater model. The ESPA groundwater model was developed at the University of Idaho (Johnson and Brockway 1983; Johnson and Cosgrove 1999) and has been widely used by State and Federal water management agencies in Idaho to address a diverse set of hydrologic issues, including the feasibility of large-scale managed aquifer recharge (IDWR and USBR 1999), the delineation of critical groundwater areas (IDWR 1997), and the determination of mitigation requirements for water-rights transfers (Cosgrove and Johnson 2003).

The ESPA groundwater model was developed using the U.S. Geological Survey (USGS) Modflow computer code (McDonald and Harbaugh 1988). The Modflow code employs a finite-difference modeling method that requires that the entire aquifer

be discretized in terms of model cells. The model calculates one aquifer head and one aquifer flow rate for each 3- by 3-mile square cell.

Figure 10 shows the distribution of approximately 1,100 model cells that represent the entire ESPA. Figure 11 shows a closer view of those cells that are used to represent the aquifer beneath FMID and the Henrys Fork. The entire FMID and the entire Henrys Fork reach between Ashton and Lewisville are encompassed within 21 model cells, which are identified in this figure by their model coordinates.

Most applications of the ESPA groundwater model involve calculation of river response functions. An ESPA river response function is a modeling result that describes the increase (gain) or decrease (loss) in groundwater in one of four hydraulically connected reaches of the Snake River resulting from a pumping stress (or a recharge stress) that is imposed somewhere on the ESPA. The four hydraulically connected river reaches of the Snake River are:

- Milner to King Hill reach
- Neeley to Minidoka reach
- Shelley to Neeley reach
- Ashton to Lewisville reach

River response functions are calculated using a specially developed spreadsheet that is linked to the ESPA groundwater model. In the last few years, the University of Idaho

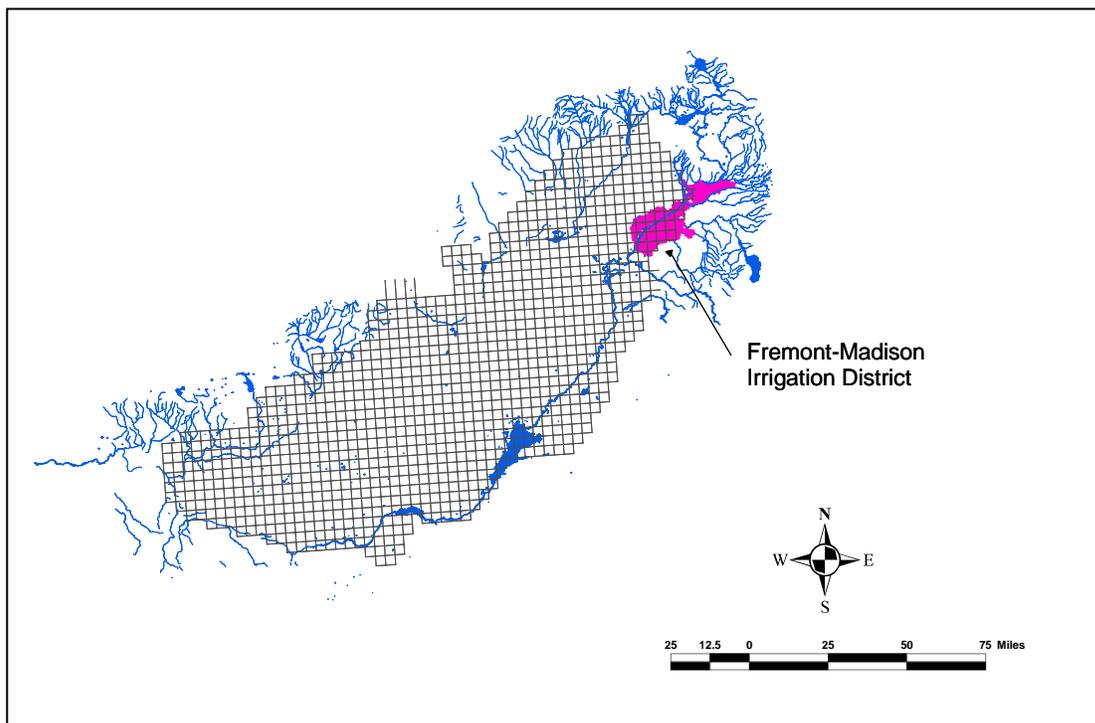


Figure 10. Eastern Snake Plain Aquifer (ESPA) model grid cells.

3.2 Hydrology

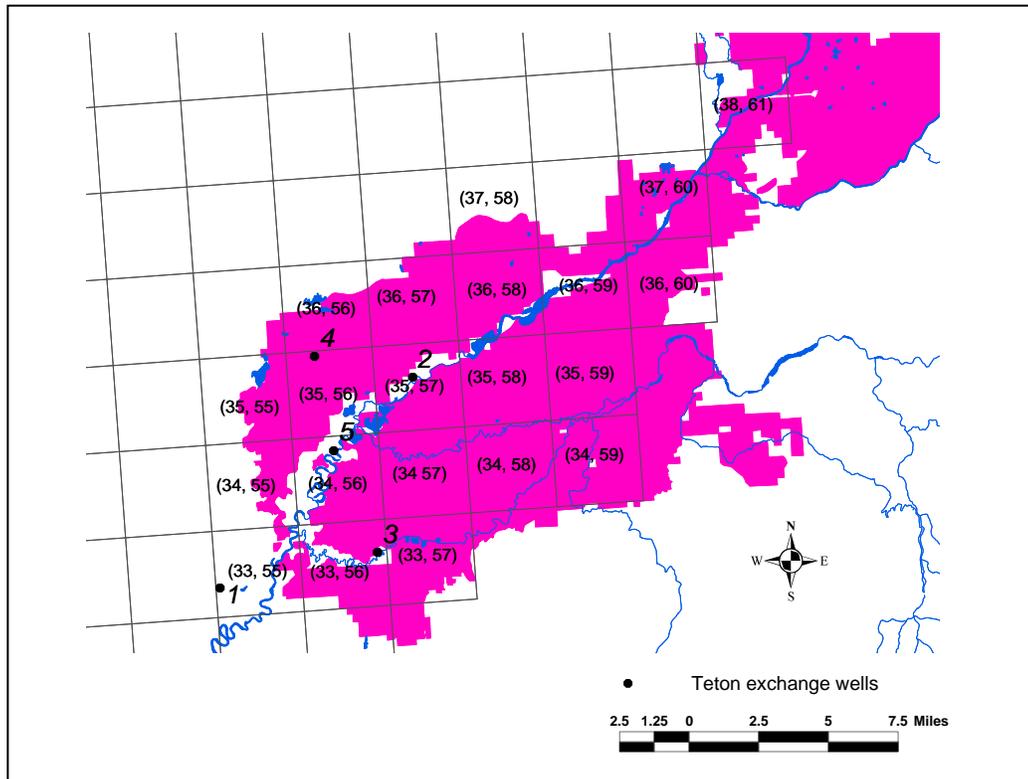


Figure 11. Teton Exchange Wells and FMID in relation to the ESPA model grid.

has developed two such response function spreadsheets (Cosgrove and Johnson 2000b; 2003). The first spreadsheet divided the ESPA into 21 zones and calculated the average river response to aquifer recharge or discharge within each zone. The entire FMID service area and its 45 model cells shown in Figure 10 was part of a single zone.

The second response function spreadsheet, referred to as the ESPA groundwater rights transfer spreadsheet, or simply the transfer spreadsheet, was developed primarily to assess the impact of transfers of individual groundwater rights from one location to another in the ESPA. It allows the user to evaluate the river response to aquifer recharge and discharge stresses that are imposed on individual model cells. While this enables a more precise calculation of river responses to aquifer stresses, this spreadsheet is limited because pumping and recharge stresses can be imposed on only four model cells at a time.

A reasonably accurate model representation of Teton Exchange Well operations requires that stresses be imposed on all 21 cells shown in Figure 11 because the net river response to exchange well pumping is due to a combination of aquifer pumping and recharge stresses. While pumping stresses are imposed on only five model cells ((34,56), (35,57), (33,55), (33,56) and (35,56) in Figure 11), the additional recharge stresses, which result from supplemental diversions from Island Park Reservoir, must be imposed on all 21 FMID model cells.

In order to overcome the four-cell limitation of the transfer spreadsheet, a separate spreadsheet procedure is used in conjunction with application of the transfer spreadsheet. This procedure relies on a simple extension of the widely applied “superposition principle” that underlies the development of river response functions in the ESPA groundwater model (and most other groundwater flow models) (De Marsily 1986; Strack 1989).

Briefly, the superposition principle states that solutions to the governing linear differential equation for time-dependent groundwater flow in a confined aquifer (or very thick unconfined aquifer) are additive. In other words, the river response that results from imposing pumping or recharge stresses on 21 model cells collectively is simply the sum of the river responses that result from imposing stresses on these cells individually.

The spreadsheet procedure used to estimate the Ashton-to-Lewisville reach response to Teton Exchange Well pumping is outlined below. This procedure is used to generate time-dependent estimates of net river depletion in the Ashton-to-Lewisville reach of the Henrys Fork for historical and projected future Teton Exchange Well pumping.

1. In the ESPA groundwater model, a unit aquifer stress is imposed individually on each of the 21 ESPA model cells representing the FMID during a single four-month trimester.
2. The transfer spreadsheet then calculates the river response in the Ashton-to-Lewisville reach to each unit stress over the next 80 years (240 trimesters).
3. A unit response matrix (240 x 240 trimesters) is created for each of the 21 ESPA model cells that represent the FMID. The initial (first trimester) river response to a unit stress is inserted along the main diagonal of the matrix. The remainder of the matrix below the main diagonal is filled with the river response to the unit stress during the following 240 trimesters.
4. A table containing historical (and projected future) pumping rates for each of the five exchange wells and the associated aquifer recharge rates is created. Aquifer recharge is assumed to be uniformly distributed over the 21 cells representing FMID lands in the ESPA groundwater model.
5. The superposition principle is then invoked. First, the unit stress matrix of each model cell representing FMID lands is multiplied by the historical record of pumping or recharge in that cell. Second, the individual responses of all 21 FMID cells are summed.

This procedure was verified by comparing the results to those of the “transfer spreadsheet” for a test case involving four-cell stresses.

3.2 Hydrology

Each response function model analysis incorporates a level of exchange well pumping anticipated to occur during the corresponding course of action. Each course of action is assumed to be implemented beginning in 2003 and to continue for the next 25 years. The model results show the anticipated depletion to Snake River flow at Lewisville during this 25-year period.

ESPA Groundwater Model Application to Historical Conditions

The ESPA groundwater model and the response function spreadsheet were used initially to estimate river depletion resulting from 1977 to 2002 exchange well pumping. Figure 12 shows the historical record of exchange well pumping and the resulting estimates of river depletion between Ashton and Lewisville.

The model results show that river depletions from exchange well pumping are not constant through time. They depend on the magnitude of pumping, when it begins, and how long it lasts. Figure 12 shows that river depletions at Lewisville reached a peak of between 2,900 and 3,100 acre-feet per trimester (between 12 and 13 cfs) in the winters of 1992 and 2002, following peaks in exchange well pumping of between 16,000 and 18,000 acre-feet per trimester (about 67 and 75 cfs respectively) during the summers of 1992 and 2001/2002.

Figure 12 indicates that the Henrys Fork depletions peak within a trimester following an episode of exchange well pumping. Depletions are generally greatest during the winter trimester (September to December) immediately following a summer of exchange well pumping. Within a year following a pumping episode, river depletion diminishes by more than half, and within five years, depletion diminishes to near zero.

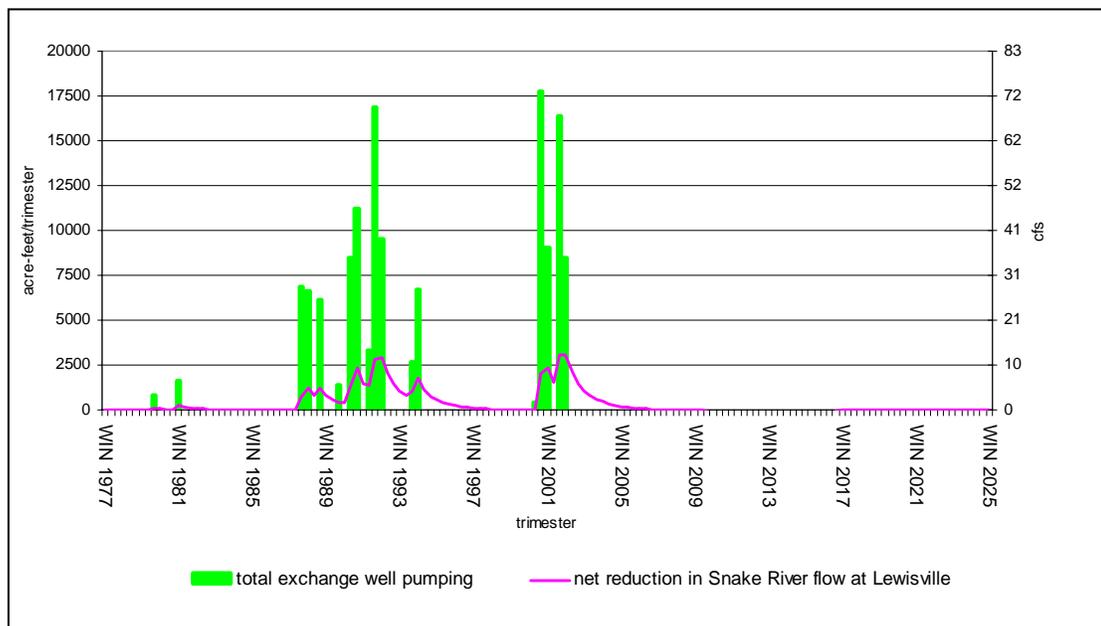


Figure 12. Historical pumping from Teton Exchange Wells and net depletion of Snake River flow.

Figure 12 shows the net effects of exchange well pumping. Without the offsetting positive effects of increased aquifer recharge due to Island Park diversions, exchange well pumping would result in significantly greater river depletions than those shown in Figure 12. Figure 13 illustrates this by separating the negative effects of exchange well pumping from the positive effects of increased aquifer recharge on FMID lands. Absent the positive effects of increased aquifer recharge, river depletions due to exchange well pumping would be about 70 percent greater than those shown in Figure 12. This would be as much as 5,200 acre-feet per trimester, about 22 cfs, following the 1992 and 2002 episodes of exchange well pumping.

Figure 13 reveals another aspect of response function model application: lag effects. Because most FMID lands are farther from the river than the exchange wells, the positive river response from supplemental diversion from Island Park Reservoir lags behind the negative river response from exchange well pumping at Lewisville. Thus, when episodes of exchange well pumping are many years apart, flow in the river may be slightly greater than it would otherwise be without exchange well pumping in some intervening years.

For example, exchange well pumping occurred in 1994 and in 2001 but not in the six intervening years. Although it is difficult to see in Figure 13, by the year 2000, the negative response from exchange well pumping is slightly less than the positive response from supplemental Island Park diversions. The result is that in the year 2000, there is a small net positive impact on Henrys Fork flow that can be traced to exchange well pumping that occurred in 1994. The impact is small, totaling only 14 acre-feet during the entire third trimester of 2000.

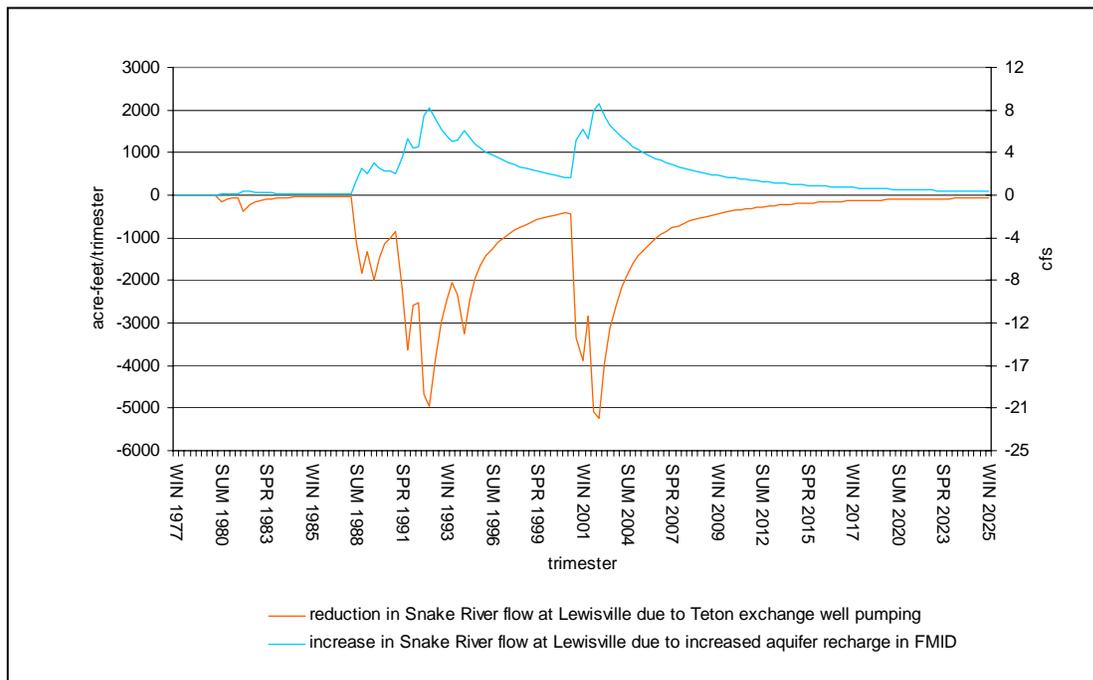


Figure 13. Negative effects of exchange well pumping and positive effects of increased aquifer recharge on Snake River flows.

3.2 Hydrology

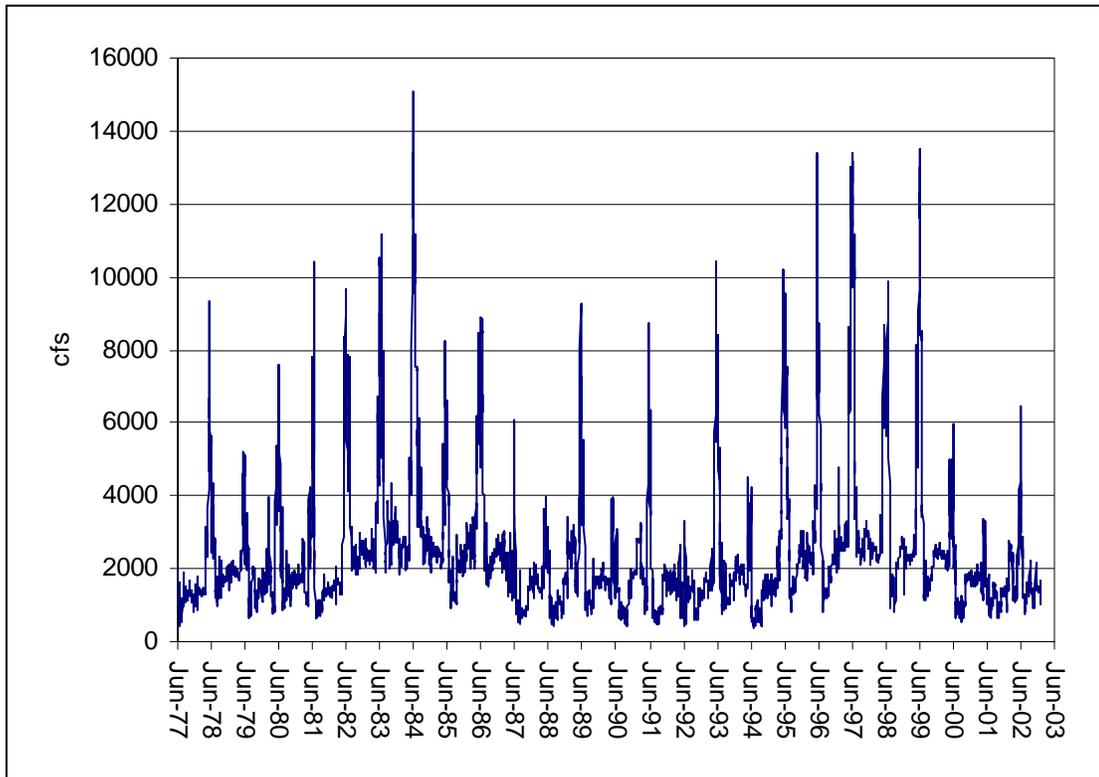


Figure 14. Gaged flow in the Henrys Fork at Rexburg.

When compared to the total flow at Rexburg or Lewisville, the net river depletion that results from exchange well pumping is very small. Figure 14 shows the average daily flow at Rexburg during the past 25 years. During the irrigation season, flows in the river at this location have averaged about 2,800 cfs. During very low water years, such as 1992 and 2001 when maximum exchange well pumping was occurring, average daily flows during the irrigation season were about 1,300 cfs. The net depletions resulting from past exchange well pumping (12 to 13 cfs) represent about one percent of the flow in the river at this location during low water years.

Alternative A – No Action

Under the No Action alternative, FMID demand for supplemental water is assumed to continue in accordance with historical patterns. FMID would continue to use the rental pool and exchange wells in about the same relative proportions as it has in the past. Operations of Island Park Reservoir, Cross Cut Diversion Dam, and Cross Cut Canal would not change. The hydrologic analysis of the No Action alternative therefore simply replicates the historical pattern of exchange well pumping during the past 25 years and extends it another 25 years into the future.

Figure 15 shows both the historical pattern of exchange well pumping between 1977 and 2002 and the pattern of exchange well pumping projected to occur under the No

Action alternative through 2028. This figure also shows the expected depletion of Snake River flows at Lewisville based on ESPA response function model results. Under the No Action alternative, peak river depletions at Lewisville of 2,900 acre-feet and 3,100 acre-feet per trimester (between 12 and 13 cfs) occur during 2017, 2026, and 2027, in the trimesters immediately following peak episodes of exchange well pumping. These depletions represent less than 1 percent of the average flow in the river at this location during a low water year.

Exceedance curves for exchange well pumping and river depletion were also developed for this alternative. The pumping exceedance curve in Figure 16 demonstrates that some amount of pumping could be expected to occur in about 40 percent of the years between 2003 and 2028 under the No Action alternative. Pumping at least 10,000 acre-feet per year could be expected in about 20 percent of these years, and pumping at least 25,000 acre-feet could be expected in about 8 percent of these years.

Figure 16 demonstrates that some depletion of Snake River flow at Lewisville could be expected in about 84 percent of the years between 2003 and 2028 under the No Action alternative. However, depletion exceeding 5,000 acre-feet per year could be expected in only about 10 percent of these years. In no case would Snake River depletion exceed 10,000 acre-feet per year.

A small increase in flow at Lewisville (less than 150 acre-feet per year) could be expected to occur in about 16 percent these years. As described previously, this small increase in flow is due to river response lag effects.

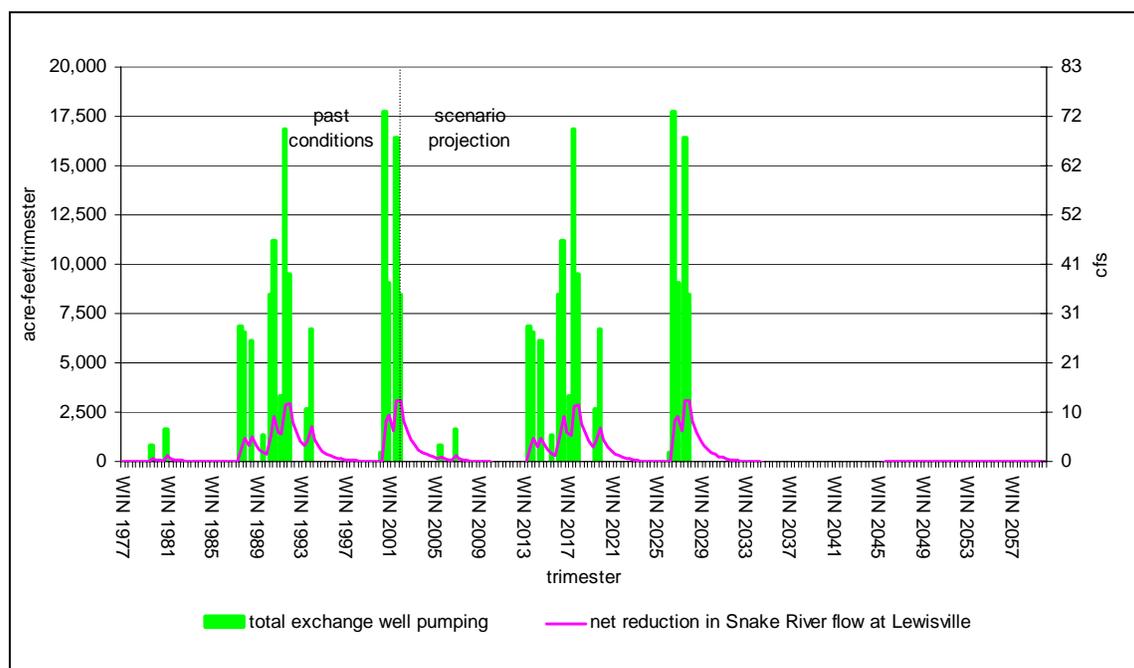


Figure 15. Depletion of Snake River flow at Lewisville assuming continuation of current exchange well operations through 2028 under the No Action alternative.

3.2 Hydrology

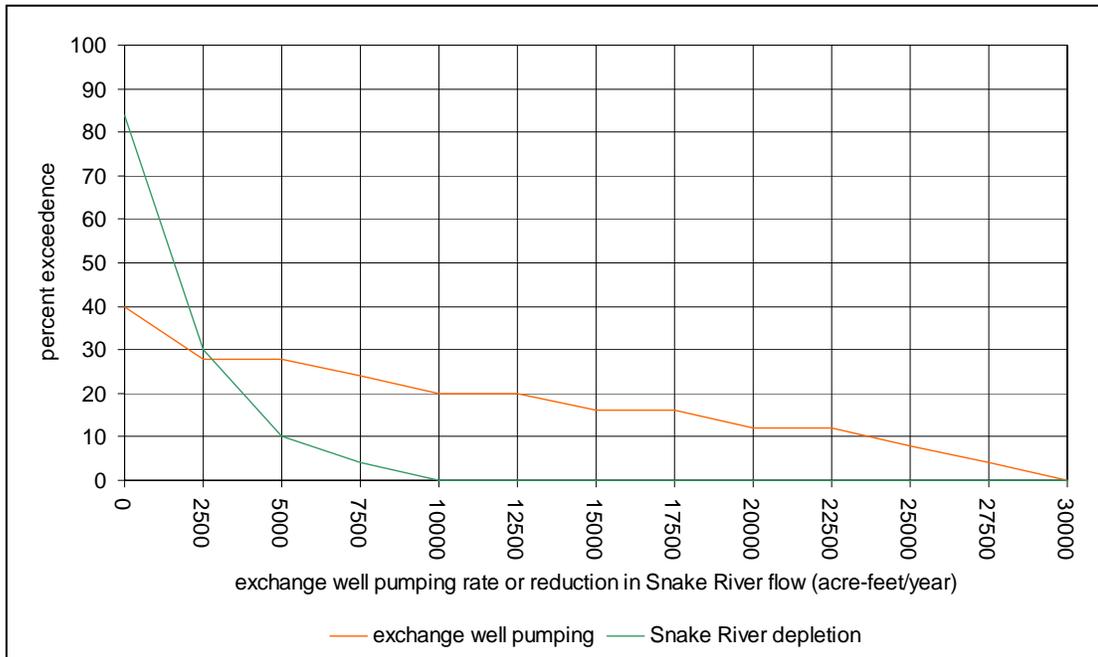


Figure 16. Exceedance curves for exchange well pumping and depletion of Snake River flow under the No Action alternative.

Alternative B – Title Transfer

Under this alternative, it is reasonable and foreseeable that FMID would:

- continue to operate the five existing exchange wells as it has in the past (these environmental consequences would be identical to those described under No Action);
- seek to develop up to five or eight additional exchange wells to allow greater cropping flexibility and assurances during low water years (thus, less acreage would go fallow during low water years);
- limit its well expansion to 80,000 acre-feet per year during low water years (FMID agreed to this limitation in a Memorandum of Agreement between FMID, the Twin Falls Canal Company, and the North Side Canal Company, Ltd., dated March 15, 2002, and contained in Appendix C);
- develop the five to eight additional wells at approximately the same locations as the five existing FMID exchange wells (this is conservative because the new wells could be located farther from the river than the existing wells);
- use the rental pool and the exchange wells in about the same relative proportions as in the past.

Well expansion would cause additional river depletions. The environmental consequences are described below.

In this analysis, the historical pattern of exchange well pumping is modified before it is extended 25 years into the future. When the historical record indicates that wells operated at maximum capacity of 30,000 acre-feet per year, the future exchange well pumping would occur at a maximum rate of 80,000 acre-feet per year. In other moderately low water years, exchange well pumping is increased proportionally (the constant of proportionality for all years is 2.70). Thus, a future low water year that is “equivalent” to a past low water year would nevertheless result in a proportionally greater demand for supplemental water because FMID would fallow less land in low water years or would grow crops that require more water.

As a simplifying assumption for this analysis, the historic withdrawals were multiplied by a factor of 2.7 to simulate future pumping. This may overstate future pumping in years when the five existing wells were not operated to the maximum capacity; this would be less likely to overstate future pumping if additional well development is associated with irrigation of crops requiring more water than crops grown in the past.

Figure 17 shows both the historical pattern of exchange well pumping between 1977 and 2002 and the pattern of expanded exchange well pumping projected to occur through 2028. Again, the ESPA model response functions are used to estimate depletions to Snake River flows at Lewisville. Peaks in exchange well pumping of 44,000 acre-feet and 48,000 acre-feet per trimester (about 182 and 198 cfs) occur during the summers of 2017, 2026, and 2027. Snake River depletions peak at about 8,300 acre-feet per trimester (about 34 cfs; Figure 18 highlights this net reduction in flow) during the winters of 2017, 2026, and 2027. These depletions represent less than 3 percent of the average flow in the river at this location during a low water year.

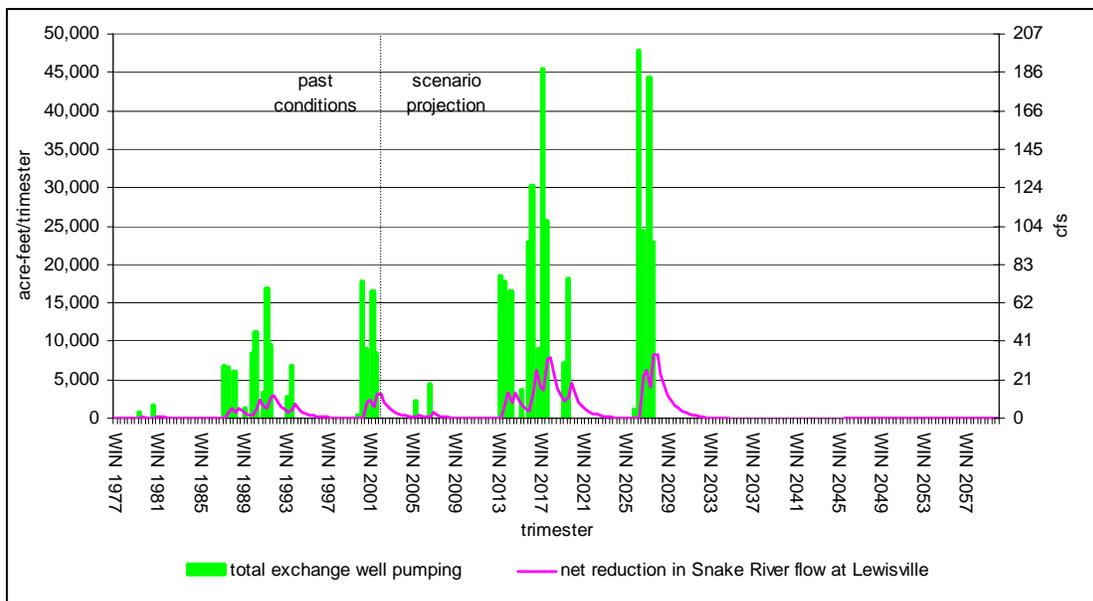


Figure 17. Depletion of Snake River flow at Lewisville assuming 80,000 acre feet of exchange well pumping during very low water years.

3.2 Hydrology

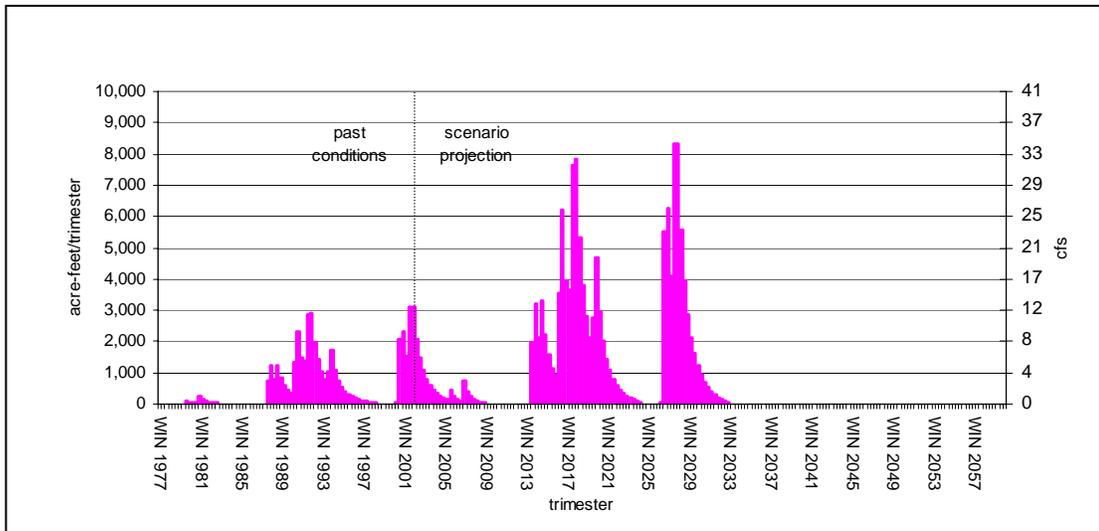


Figure 18. Net reduction in Snake River flow at Lewisville assuming 80,000 acre-feet of exchange well pumping during very low water years.

The predicted 34-cfs depletion during the years of highest pumping would slightly diminish reach gains but would not turn any gaining reach into a losing reach. As Figure 8 shows on page 21, pumping during the irrigation season would need to exceed 400 cfs to transform the Henrys Fork reach between St. Anthony and Rexburg to a losing reach. This provides some independent validation that the response function spreadsheet results are valid at these pumping rates.

Figure 19 shows the exceedance curves for expanded well pumping under this alternative. The pumping exceedance curve in this figure shows that some amount of exchange well pumping is expected to occur in about 40 percent of the years between 2003 and 2028. Exchange well pumping exceeding 10,000 acre-feet per year could be expected in about 27 percent of the time during these years, pumping exceeding 55,000 acre-feet per year could be expected in about 12 percent of the time, and pumping exceeding 75,000 acre-feet per year could be expected in about 4 percent of the time. Pumping would never be expected to exceed 80,000 acre-feet per year.

The river depletion exceedance curve in Figure 19 shows that under this alternative, some reduction in Snake River flow at Lewisville could be expected about 84 percent of the time between 2003 and 2028. Snake River depletions exceeding 5,000 acre-feet per year could be expected about 38 percent of the time. Depletions exceeding 10,000 acre-feet per year could be expected about 23 percent of the time, and depletions exceeding 20,000 acre-feet per year about 4 percent of the time. Snake River depletions would likely never exceed 22,000 acre-feet per year. A small increase in flow at Lewisville (less than 400 acre-feet per year) could be expected about 16 percent of the time.

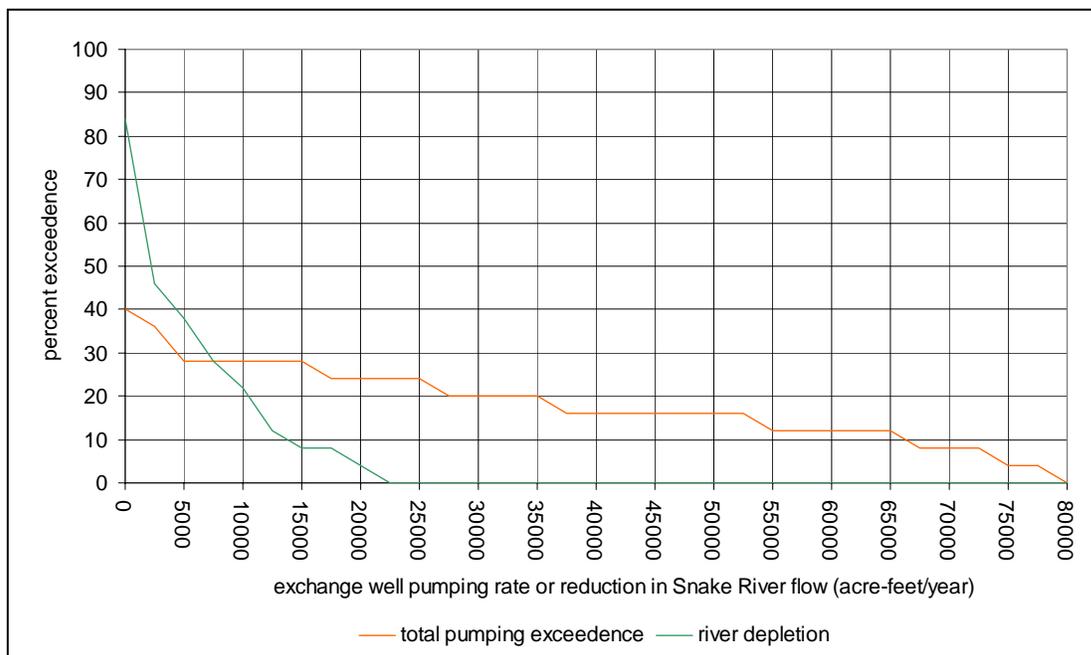


Figure 19. Alternative B exceedance curves for expanded exchange well pumping and depletion of Snake River flow.

The flow reductions in farther downstream reaches are even smaller and occur much less frequently. Reclamation analyzed the period from 1980 to 2000 to see how lower streamflows at Lewisville would affect reservoir operations and ultimately influence flows below Milner. Table 4 summarizes stream losses in the Snake River at Lewisville with potential well expansion. Table 5 summarizes stream losses in the Snake River at Milner with potential well expansion. These tables illustrate how the effect of small flow reductions in the Henrys Fork from expanded well pumping would diminish in farther downstream reaches.

According to the model results displayed in Table 5, these small reductions in flow would occur very infrequently (in only 14 of 252 of the months modeled) and would occur during spring months when they would only be a small fraction of the runoff-fed Snake River flow (February through June). When flow reductions were evident in the model, they were most often very small (8 occurrences were under 10 cfs; 4 were between 11 and 20 cfs).

The model results do show two larger flow reductions in June 1993 (533 cfs) and May 1995 (121 cfs). As described above, well expansion would diminish river gains to the Snake River. With less river gains above Lewisville, downstream irrigators would order additional water from storage. As long as the reservoir system is not required to make flood control releases (or does not run dry), there would be little or no flow reduction. However, American Falls and Palisades Reservoirs would be

3.2 Hydrology

Table 4. Modeled flow changes (in cfs) at Lewisville from Teton Well expansion.

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1980	0	0	0	0	0	0	0	-1	-1	-1	-1	0
1981	0	0	0	0	0	0	0	0	0	0	0	-2
1982	-2	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	-5	-5	-5	-5	-9
1989	-9	-9	-9	-6	-6	-6	-6	-9	-9	-9	-9	-6
1990	-6	-6	-6	-4	-4	-4	-4	-3	-3	-3	-3	-3
1991	-3	-3	-3	-9	-9	-9	-9	-16	-15	-16	-16	-11
1992	-11	-11	-11	-10	-10	-10	-10	-20	-18	-20	-20	-21
1993	-21	-21	-21	-14	-14	-14	-14	-10	-11	-10	-10	-7
1994	-7	-7	-7	-6	-6	-6	-6	-7	-7	-7	-7	-12
1995	-12	-12	-12	-8	-8	-8	-8	-5	-6	-5	-5	-4
1996	-4	-4	-4	-3	-3	-3	-3	-2	-2	-2	-2	-2
1997	-2	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1
1998	-1	-1	-1	-1	-1	-1	-1	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0

slightly less full. Eventually, a high-water year would require flood control releases. Because the reservoirs would be less full, less water would be released downstream as the reservoirs completely fill and Reclamation operators must begin releasing additional flood flows. The larger flow reduction in June 1993 is the sudden occurrence of several years of accumulated small flow reductions at Lewisville. These flow reductions would accompany flood control releases when the reduction of flow would be a much smaller component of the total streamflow than during average flow conditions.

The two larger modeled flow reductions (121 and 533 cfs) would have been an extremely small component of the spring flows in downstream reaches such as Brownlee Reservoir inflows or Lower Granite Dam outflows. The most extreme case of a 533-cfs flow reduction modeled for June 1993 would have reduced Snake River inflows to Brownlee Reservoir by about 2 percent for that month (the June 1993 flows at the Brownlee Reservoir inflow gage fluctuated between around 20,000 to 29,200 cfs). This reduction would have been about 0.5 percent of Snake River's average 99,000 cfs flow at Lower Granite Dam for that month. The 121-cfs reduction

Table 5. Modeled flow changes (in cfs) at Milner from Teton Well expansion.

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1980	0	0	0	0	0	0	0	0	-1	0	0	0
1981	0	0	0	0	0	0	-1	0	0	0	0	0
1982	0	0	0	0	0	0	-5	-4	-1	0	0	0
1983	0	0	0	0	0	0	0	0	-1	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	-533	0	0	0
1994	0	0	0	0	0	0	-11	0	0	0	0	0
1995	0	0	0	0	0	0	0	-121	0	0	0	0
1996	0	0	0	0	0	-18	-17	0	0	0	0	0
1997	0	0	0	0	-10	-11	0	0	0	0	0	0
1998	0	0	0	0	0	0	-6	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0

modeled for May 1995 would have reduced Snake River inflows to Brownlee Reservoir by about 0.5 percent for that month (the May 1995 flows at the Brownlee Reservoir inflow gage fluctuated between around 29,100 and 35,300 cfs). This reduction would have been about 0.1 percent of the Snake River's average 109,000 cfs flow at Lower Granite Dam for that month.

As mentioned previously, FMID has agreed to implement an IDWR-approved water mitigation plan to avoid effects to downstream water users in connection with any exchange well pumping beyond that associated with the five existing exchange wells. IDWR would likely require FMID to implement a plan to mitigate the effects of depletions identified in this analysis for those with senior water rights.

3.3 Power Generation

3.3.1 Affected Environment

Hydropower generation at both Federal and non-Federal facilities on the Columbia and Snake Rivers is an important resource for contributing to the reliability of the electrical power system in the Pacific Northwest. The network of hydropower dams below the action area includes 21 hydroelectric facilities owned by the United States and Idaho Power Company (see Figure 20).

The Federal dams are coordinated to maximize power generation within administrative and legal guidelines. These include eight Corps of Engineers facilities on the lower Columbia and Snake Rivers, and Reclamation's powerplant at Minidoka Dam. Palisades Dam can also be indirectly affected. The Idaho Power Company owns and operates 12 powerplants on the Snake River from American Falls Dam to the Hells Canyon Complex. Idaho Power also coordinates these facilities to maximize power generation within administrative and legal guidelines. This analysis does not consider the small municipal powerplants at Idaho Falls.

3.3.2 Environmental Consequences

Alternative A – No Action

A water service or repayment contract between the United States and FMID would have no effect on river flows downstream from the FMID service area. Depletions

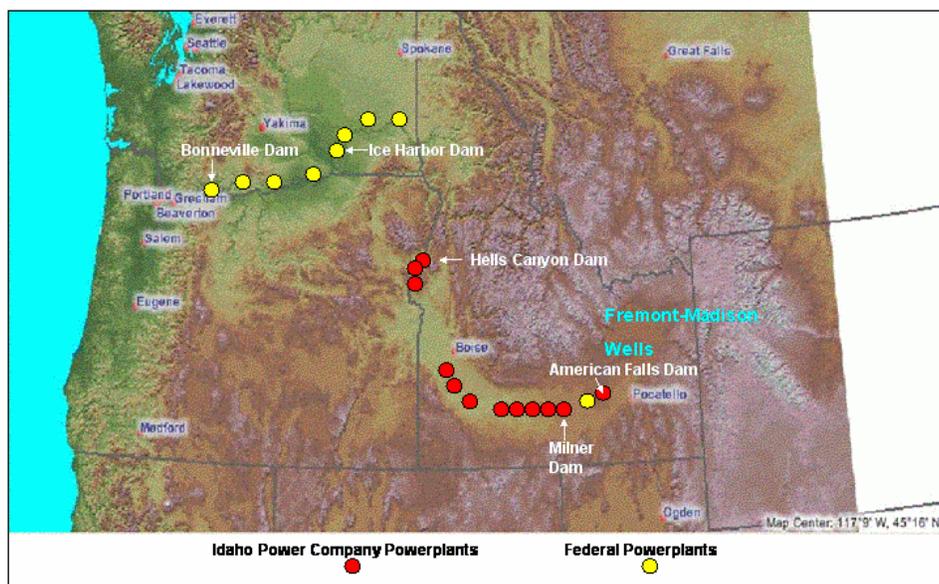


Figure 20. Columbia River and Snake River hydropower dams below FMID.

resulting from FMID's continued operation of the Teton Exchange Wells would continue as they have occurred in the past.

Alternative B – Title Transfer

Under this alternative, FMID could simply take ownership of the associated facilities, including the existing five Teton Exchange Wells, and could continue to operate them as it has in the past. The effects of this action on downstream power generation would be identical to the No Action alternative.

However, FMID could also develop five to eight additional exchange wells to pump up to 80,000 acre-feet per year. Section 3.2 describes when expanded pumping would likely occur. Expanded pumping in low water years would eventually decrease river flows. This decrease potentially affects hydropower generation at powerplants downstream from the action area. Hydropower effects may accumulate in the upper Snake River storage system; downstream effects would be delayed for months or even years and would be eventually passed along with flood control and spring runoff in wet years. Hydropower generation would not be affected when a change in flow reduces the bypassed water that occurs when turbines are operating at capacity and additional flows must be passed to the river; this is often the case during periods of spring runoff. Power losses would occur if the expanded wells deplete the river flows within power production capacity.

As described in Section 3.2, well expansion would diminish river gains to the Snake River. With less river gains above Lewisville, downstream irrigators would order additional water from storage. As long as the reservoir system is not required to make flood control releases (or does not run dry), there would be no measurable impacts to hydropower generation. However, American Falls and Palisades Reservoirs would be slightly less full. Eventually, a high-water year would require flood control releases. Because the reservoirs would be less full, less water would be released downstream as the reservoirs approach flood control rule curve elevations. In this scenario, timing would be critical. If downstream power reservoirs are spilling water past their turbines, then there would be no loss to power generation. However, if the downstream power reservoirs are not spilling, lower reservoir releases would result in less hydropower production.

Reclamation analyzed the period from 1980 to 2000 to see how lower streamflows at Lewisville would affect reservoir operations and ultimately influence flows below Milner. Table 4 summarizes stream losses in the Snake River at Lewisville with potential well expansion. Table 5 summarizes stream losses in the Snake River at Milner with potential well expansion.

3.3 Power Generation

Table 6 shows an estimate of what the hydropower losses in kilowatt-hours would have been if expanded pumping had occurred from 1980 to 2000. Despite less water in the river below the action area, expansion of the Teton Exchange Wells would cause few power losses. In all but two of the months analyzed, the hydropower generation facilities on the Columbia and Snake Rivers downstream from the action area would be spilling water at the time reservoir releases would be affected.

Reclamation used hydro-regulation data and the current values for replacing lost energy production to evaluate the economic impact of this additional pumping on electrical energy production at downstream powerplants on the Snake and Columbia Rivers. Two factors can influence energy production:

- The consumptive use and deep recharge to the aquifer portions of the water diverted that is not available for power production
- The potential change in the seasonal flow pattern of river flows; many of the downstream reservoirs are run-of-the-river and cannot store flows to release them at specified periods for optimum generation.

Table 6. Computed total hydropower losses (kilowatt-hours) from expanded well use (assuming historic reservoir regulation 1980 through 2000 and computed decreases in flow at Lewisville).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	-58	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	-891	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	-45	0	0	0	0	0

The monthly hydro-regulation analysis for the period of record between 1980 and 2000 showed only a small loss in generation. Generation was reduced in only 2 of the 252 months of the 21-year period of record (April 1981 and April 1994).

The lost generation was valued at projected 2004 monthly rates provided by the Bonneville Power Administration (2003). The average annual power loss was estimated at approximately \$1,000 per year. The estimate's standard deviation is rather large at \$4,360 per year; there was no difference in 250 of the 252 months, and there was a loss of \$20,500 in April 1994. Power losses would likely occur very infrequently.

3.4 Land Use

3.4.1 Affected Environment

The Federal Act of September 7, 1964, authorized the construction of the Lower Teton Division of the Teton Basin Project to provide water to lands that were to be included in FMID. The project had two phases. Phase I would provide supplemental water supply to lands in the existing District. Phase II would provide a full water supply to new lands in the District, including the Rexburg Bench. When the Teton Dam was completed, the Rexburg Bench area was already developed with groundwater.

Reclamation changed Phase II by using the water originally intended for the Rexburg Bench to irrigate the Clementsville area. The District annexed lands that were to receive this Phase II water. FMID completed the annexation process, and Reclamation began to classify the lands to complete authorization for those lands to receive Phase II water. The classification process was still underway when the Teton Dam failed.

Before Teton Dam failed, irrigators who had made agreements with Reclamation to receive Phase II water had already begun the necessary investments in pumping, pipeline, storage facilities, and irrigation systems. After the dam failed, the District had annexed some 49,000 acres of lands; however, these lands had no authorization to receive Project water and were left without a water supply.

The affected irrigators applied to the State of Idaho for late-priority surface water rights and groundwater rights in the lower Teton River to replace instream flows that are diverted onto their farms. Their primary water supply became dependent on this groundwater source. Over the years, FMID has also purchased 1,616 acre-feet of storage water in Island Park Reservoir from willing sellers. This total does not include 1,000 acre-feet the Conant Creek Canal Company purchased from the District in 1975 in anticipation of storage space behind Teton Dam becoming available.

3.5 Socioeconomics

The Conveyance Act directs that “the acreage within the District eligible to receive water from the Minidoka Project and the Teton Basin Projects is increased to reflect the number of acres within the District as of the date of enactment of this Act, including lands annexed into the District prior to enactment of this Act as contemplated by the Teton Basin Project” (see Appendix A).

3.4.2 Environmental Consequences

Alternative A – No Action

The existing five Teton Exchange Wells would continue to provide FMID water users with a supplemental supply during periods of low water. The agricultural nature of FMID and adjacent land use would continue unchanged.

Alternative B – Title Transfer

The existing five Teton Exchange Wells would continue to provide FMID water users with a supplemental supply during periods of low water. The potential water from an additional five to eight wells would give farmers greater flexibility in cropping mixes during low water years and would strengthen the area’s agricultural land use.

3.5 Socioeconomics

3.5.1 Affected Environment

FMID is located in Fremont, Madison, and Teton counties in eastern Idaho. FMID is organized under the laws of the State of Idaho and serves numerous Canal Companies in eastern Idaho. The individual entities, which own shares in FMID for water accruing to space contracted by FMID, operate and maintain their own diversions, canals, and ditches. FMID, representing the individual entities, contracted with the United States for irrigation water from the Minidoka and Teton Projects. The individual entities combine the water accrued to space contracted by FMID with privately held natural flow rights and groundwater rights. The individual entities irrigate approximately 285,000 acres, with a distribution of lands estimated at 60 percent in Fremont County, 25 percent in Madison County, and 15 percent in Teton County.

Population and Income

The July 2002 population for the three counties was estimated at 46,404, a 29.1 percent increase over the 1990 Census of Population. During the same time period the population for the State of Idaho increased 32.2 percent. The 2000 Census population

data for major towns and cities in the area include: Rexburg (17,257), St. Anthony (3,342), Ashton (1,129), Driggs (1,100), Sugar City (1,242), Victor (840), Teton (569), Newdale (358), Parker (319), Tetonia (247), and Island Park (215). The population of the area increases significantly during the summer tourist season.

Total personal income for the three counties in 2001 was \$693.8 million, which is 2.1 percent of Idaho's total (\$32.4 billion). Average per capita income for the three-county area in 2001 was \$15,177, which is 62 percent of Idaho's average (\$24,506). Per capita incomes in rural Idaho have historically been below the overall state average. Table 7 and Table 8 contain additional population and personal income data.

Table 7. Population and area details for Fremont, Madison, and Teton Counties.

Detail	Fremont	Madison	Teton	Three-County Total	Idaho
July 2002 estimate	11,859	27,686	6,859	46,404	1,341,131
2000 Census	11,819	27,467	5,999	45,285	1,293,953
1990 Census	10,937	23,674	3,439	38,050	1,006,734
1990 to 2002 change	+ 8.4 %	+ 16.9 %	+ 99.4 %	+ 29.1 %	+ 33.2 %
Area (square miles)	1,867	472	450	2789	82,747
Persons per square mile	6.35	58.65	4.04	16.64	16.21

Source: U.S. Census Bureau 2003.

Table 8. Personal income details for Fremont, Madison, and Teton Counties.

2001 Data	Fremont	Madison	Teton	Three-County Total	State of Idaho
Personal income	\$198 million	\$392 million	\$103 million	\$694 million	\$32.4 billion
Per capita personal income	\$16,759	\$14,319	\$15,919	\$15,177	\$24,506
Per capital personal income as a percentage of Idaho total	0.68	0.58	0.62	0.62	1.0

Source: BEA 2003.

Employment and Industry

Table 9 shows the percent of total employment for several major industries in the area. Farming alone accounts for approximately 10 percent of the employment. The food and lodging industry relies heavily on area tourist attractions, including Henrys Lake, the Henrys Fork, Mesa Falls, and Harriman State Park. Travelers and tourist that use highways serving as a portal to Yellowstone National Park and Grand Teton National Park enhance local employment. Significant use of automotive services also enhances the retail trade and services industries. Table 10 summarizes employment by type for 2002, and Table 11 summarizes employment by industry for 2002.

3.5 Socioeconomics

Table 9. Major industries in Fremont, Madison, and Teton Counties.

Major Industry	Percent of Total Employment	
	Three-County Area	State of Idaho
Services	36.0	26.8
Retail trade	16.1	17.2
Farming, agricultural related, and forestry	15.2	7.6
State and local government	13.3	11.7
Manufacturing	7.0	10.5

Source: BEA 2003.

As expected, wage and salaried employment and non-farm proprietors constitute a significant portion of the area's total employment. The major non-farm employers in the three-county area are: school districts, local, State, and Federal governments, ML Technology, Brigham Young University Idaho (formerly Ricks College), Artco, Basic American Foods, Madison Memorial Hospital, Melaleuca, High Country Potato, Ashton Nursing Home, Fall River Electric Co-op, Grand Targhee Resort, Teton Valley Hospital, Broulim's Thriftway, Eagle Computer Systems, Teton Telecom, and Fremont Telecom. In addition, farmers in the area hire significant amounts of seasonal labor. Employment by type is shown below.

Agricultural Economy Information

Fremont Madison Irrigation District

In terms of irrigated acreage, value of farm production, and water supply, FMID and its associated districts play a major role in the area. FMID also serves as a spokesman on water issues, including water allocation and water rights issues.

Table 10. Employment by type in Fremont, Madison, and Teton Counties.

Year 2000 Data	Fremont	Madison	Teton	Three-County Total	Idaho
Wage and Salary Employment	2,944	12,767	1,820	17,531	611,371
Farm Proprietors	538	480	304	1,322	24,400
Non-Farm Proprietors	1,204	2,163	607	3,974	152,648

Source: BEA 2003.

Table 11. Employment by industry in Fremont, Madison, and Teton Counties in 2000.

Year 2000 Data	Fremont	Madison	Teton	Three-County Total	Three-County Total Percent	State of Idaho Total	State of Idaho Total Percent
Farm	823	932	454	2,209	10.71	41,554	0.0527
Agricultural Services, Forest, and Fish	296	517	116	929	4.50	19,131	0.0243
Manufacturing	81	1,268	97	1,446	7.01	82,809	0.1050
Mining	D	D	D	D	D	3,227	0.0041
Construction	330	643	333	1,306	6.33	56,241	0.0713
Transportation, Communication and Public Utilities	232	D	92	D	D	34,711	0.0440
Wholesale Trade	145	1,066	D	D	D	35,671	0.0452
Retail Trade	688	2,199	431	3,318	16.08	135,425	0.1718
Finance, Insurance and Real Estate	D	678	162	840	4.07	53,070	0.0673
Services	792	6,094	537	7,423	0.3597	211,281	0.2680
Federal Civilian	127	61	46	234	0.0113	13,379	0.0170
Federal Military	48	112	25	185	0.0090	9,536	0.0121
State & Local Government	860	1,510	374	2,744	0.1330	92,384	0.1172
Total				20,634	100.00	788,419	100.00

Source: BEA 2003.

Canal Companies within FMID have various combinations of irrigation water sources, including Reclamation-contracted water through FMID, natural flow rights (rivers), and groundwater rights (wells). The local area also includes substantial irrigation using solely groundwater wells; these irrigators have no connection with Reclamation.

Agricultural Production

Although located at higher elevations and limited by the growing season, irrigated lands in the FMID contain highly productive soils. Lands within FMID constitute a significant portion of the irrigated acreage in the three-county area. However, the cropping distribution is more intensive in FMID than for the three-county area. FMID estimates its cropping distribution is 24 percent in potatoes (including a significant acreage of seed potatoes in the upper basin), 49 percent in grain (wheat and barley), 18 percent in hay, 6 percent in pasture, and 3 percent in other crops. FMID estimates that over 70 percent of the acreage is sprinkler irrigated; the remaining lands are flood or sub-irrigated.

3.5 Socioeconomics

Reclamation estimates prepared for a Grassy Lake Safety of Dams study estimated that FMID lands generate approximately \$104 million annually in crop sales (farm gate value), or 200,000 acres at \$520 per acre.

Fremont, Madison, and Teton County Agricultural Information

The 1997 Census of Agriculture for Idaho reports 1,233 farms in the three-county area with total farm sales of \$184.3 million (\$159.7 million in crop sales and \$24.6 million in livestock and livestock product sales). The 1997 Census of Agriculture reported 930 irrigated farms totaling 515,834 acres. Of these, 304,919 acres were irrigated and 381,460 acres were harvested cropland. Table 12 summarizes farm and crop information from the census.

Major crops grown in the three-county area include barley, wheat, potatoes, alfalfa hay, and pasture. A significant infrastructure has developed supporting the agricultural industry, such as the several potato shipping and processing plants in the area. Although potatoes are only 24 percent of the cropping area, their contribution to farm income is much higher. The Grupo Group and Anheuser-Busch have malting barley processing plants located in the Idaho Falls area. Owing to the geographical isolation and high elevation, a significant seed potato industry also exists in the area. Table 13 shows the major crops grown in the area in 2002.

Table 12. Farm and crop data for Fremont, Madison, and Teton Counties.

1997 Agricultural Census	Fremont	Madison	Teton	Three-County Total
All Farms	493	470	270	1,233
Irrigated Farms	349	393	188	930
Land in Farms (acres)	334,151	222,817	132,678	689,646
Land in Irrigated Farms (acres)	224,924	190,003	100,907	515,834
Irrigated Land (acres)	118,997	128,649	57,273	304,919
Total Cropland (acres)	193,394	174,147	101,862	469,403
Harvested Cropland (acres)	157,298	147,243	76,919	381,460
Harvested Irrigated Cropland (acres)	124,659	139,391	63,240	302,631
Irrigated Harvested Cropland (acres)	106,925	123,690	49,729	280,344
Crop Sales	\$69.6 million	\$73.1 million	\$16.9 million	\$159.7 million
Livestock and Product Sales	\$11.4 million	\$7.3 million	\$5.9 million	\$24.7 million
Total Sales	\$81.0 million	\$80.4 million	\$22.4 million	\$184.4 million

Source: Idaho Department of Agriculture 2003.

Table 13. Major crops grown in Fremont, Madison, and Teton Counties.

Crop	Fremont	Madison	Teton	Three-County Total	Percent
All wheat (acres)	25,300	34,800	5,300	65,400	17.64
Barley (acres)	78,200	48,600	44,500	171,300	46.21
Alfalfa hay (acres)	26,200	22,000	15,000	63,200	17.05
Oats (acres)	1,700	1,100	–	2,800	0.76
Potatoes (acres)	28,500	32,000	7,500	68,000	18.34
Total				370,700	100.00

Source: U.S. Department of Agriculture 2003.

3.5.2 Environmental Consequences

This section uses qualitative terms to discuss the economic impacts of the alternatives. Potential economic impacts associated with the operation of the Teton Exchange Wells were identified for two irrigated areas. The first impact area encompasses FMID lands that directly benefit from exchange well pumping. The second impact area is the irrigated land downstream from FMID that includes lands with more senior natural flow rights and storage rights in American Falls Reservoir. Increased diversions upstream could potentially adversely affect these lands.

This analysis is qualitative because:

- The additional pumping would occur for the most part in dry years, and is a relatively small portion of FMID's total water supply.
- The river depletions are relatively small compared to the flow of the Snake River (less than 3 percent of the flow at Lewisville when the expanded exchange wells are operating at their maximum).
- Additional well development might adversely impact downstream water users who may have mitigation rights under Idaho water law.

The analysis focuses solely on irrigation. Additional exchange well pumping would have no measurable economic effects on recreation, flood control, or hydropower production.

Alternative A – No Action

A water service or repayment contract between the United States and FMID would have no effect on the economics of the FMID service area or downstream water users. As described in Section 3.2, FMID's continued operation of the Teton Exchange

3.5 Socioeconomics

Wells would provide additional water to FMID lands in 40 percent of the years to reduce the water shortage in low water years. This continuation would continue to provide the existing level of economic benefit to FMID irrigators.

Alternative B – Title Transfer

Effects to the FMID Service Area

Under this alternative, FMID could simply take ownership of the associated facilities, including the existing five Teton Exchange Wells, and could continue to operate them as it has in the past. The economic effects of this action would be identical to the No Action alternative. However, FMID could develop five to eight additional exchange wells to pump up to 80,000 acre-feet per year. Section 3.2 describes when expanded pumping would likely occur.

Figure 21 is an exceedance graph showing the relationship between the amount and probability of exchange well pumping for the existing five wells and the analysis of future pumping. The difference between the two graphed lines is the potential impact. For example, the probability of pumping at least 2,500 acre-feet per year is 28 percent for Alternative A and 36 percent for Alternative B. Exchange well pumping of 20,000 acre-feet or more per year has a probability of 12 percent for Alternative A and 24 percent for Alternative B.

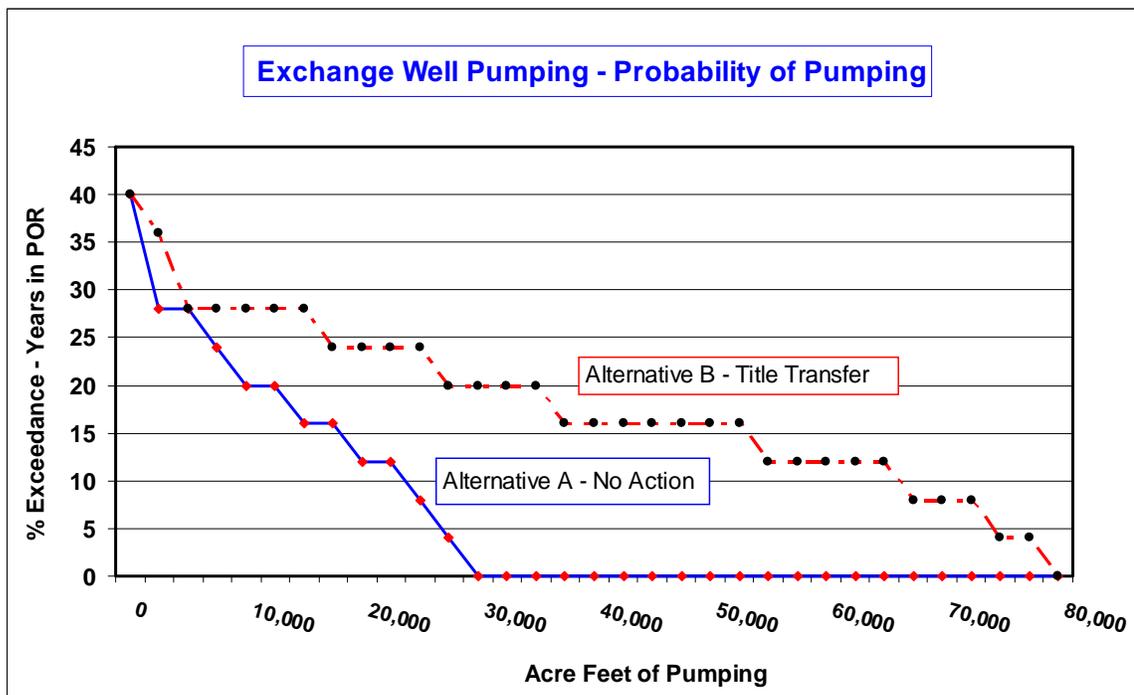


Figure 21. Probability and volume of Teton Exchange Well pumping (this may overstate future pumping).

FMID has indicated that the assurance of a late-season water supply is critical for potato production. Crop production cost for potatoes is relatively capital intensive. Without a dependable full-season water supply, potato production becomes too risky. Potatoes are grown in a 3-to-5-year rotation with other crops. This rotation with a reliable water supply allows the production of the higher value crop. During low water years, irrigators reduce water deliveries to hay and grain in late season to maintain deliveries to potatoes. They also adjust spring cropping using water supply forecasts.

Annual crop revenues generated by irrigated lands in FMID are estimated at \$104 million. Expanded exchange well pumping would have a positive impact on FMID-area farm income and the supporting infrastructure in the upper Snake River basin.

The cost for FMID to pump water from the wells would be an economic impact. These costs would be a function of the dynamic head (lift), volume of water pumped, and the electrical charge from the local utility. However, any negative economic effect from pumping costs would be more than offset by the increased crop income. If pumping water from the exchange wells would have a negative economic effect, FMID would not pump water from the exchange wells.

Effects to Downstream Water Users

Downstream water users could potentially be affected only if FMID developed the five to eight additional wells described in Section 3.2. As that section notes, the net effect of increased exchange well pumping is a slight reduction in Snake River flows at Lewisville. The essential question for impact analysis is to what extent, if any, the reduction in river flows impacts those irrigation districts and individuals with natural flow rights and storage in American Falls Reservoir. The incidence of these potential impacts could be scattered from Idaho Falls downstream to Twin Falls, though it may not require mitigation.

River depletion data developed from hydrologic models indicates that Snake River depletions at Lewisville would occur about 84 percent of the time under both alternatives.

Figure 22 is an exceedance graph showing the relationship between historical pumping and the analysis of future pumping proportionally by a factor of 2.7. The difference between the two graphed lines is the potential impact. Depletions of the Snake River at Lewisville are never expected to exceed 10,000 acre-feet per year for Alternative A or 22,000 acre-feet per year for Alternative B. For example, the probability of a 5,000 acre-feet per year depletion is 10 percent for Alternative A and 38 percent for Alternative B; a 7,500 acre-feet per year depletion has a probability of 4 percent for

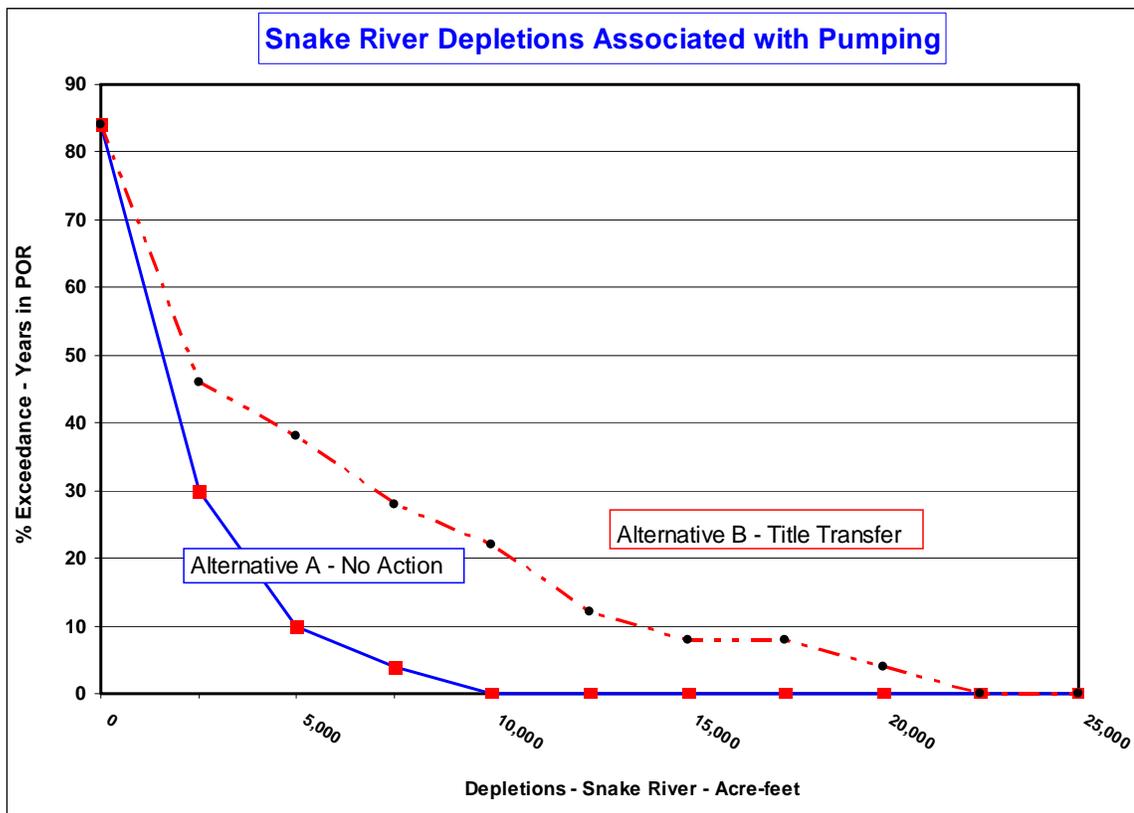


Figure 22. Probability and volume of Teton Exchange Well depletions in the Snake River at Lewisville (this may overstate future pumping).

Alternative A and 28 percent for Alternative B; a 20,000 acre-feet per year depletion has a probability of 0 percent for Alternative A and 4 percent for Alternative B.

An additional 12,000 acre-foot depletion is worst-case scenario for expanded well pumping. The impact of this increase is unknown at this time, but it is believed to be small.

The probability of a 12,000 acre-foot depletion is relatively low. Any resulting impact on the river would probably be transient from one right to the next. Groundwater impacts would be less immediate and would become apparent in subsequent years.

As noted in FMID’s Memorandum of Agreement with other irrigators (see Appendix C), IDWR would require FMID to mitigate any adverse effects of additional well pumping to avoid effects to downstream water users. For example, FMID could pump additional replacement water to supplement American Falls Reservoir storage or implement a groundwater recharge strategy during high-runoff periods. FMID could also seek other forms of exchanges and financial transactions.

The economic value of 12,000 acre-feet of incremental reduction in the flow of the Snake River at Lewisville depends on the type of water year and if the water would be stored in the reservoir system and actually used for irrigation.

The average value of irrigated crop production in south-central Idaho ranges from \$550 to \$700 per acre. Allowing for evaporation, transportation, and storage losses (20 to 30 percent) and on-farm irrigation losses (3.57 acre-feet per acre for consumption and on-farm loss), the value of crop production in south-central Idaho associated with 12,000 acre-feet would be \$1.3 million to \$1.6 million. The total crop income for the eight counties in south-central Idaho and the six counties in southeast Idaho was estimated respectively at \$612 million and \$443 million annually for the 1988 to 1995 time period (USBR 1999). The actual economic value, or net farm income, after allowing for variable and fixed production cost would yield a lesser value.

In general, depletions to the river below American Falls caused by increased exchange well pumping without mitigation would have a very small negative impact on farm income and the supporting infrastructure in the Snake River basin in south-central Idaho.

3.6 Recreation

3.6.1 Affected Environment

The Cross Cut Diversion area is a heavily-used recreation area on the lower Henrys Fork (effects to fish populations are discussed separately in Section 3.10). Boaters and anglers use the Cross Cut Diversion Dam area to access the river. These users launch below Ashton Reservoir and float the river to the Cross Cut Diversion Dam or launch at the Cross Cut Diversion Dam and float to St. Anthony.

Except for two unimproved boat launches, the Cross Cut Diversion Dam area has no developed recreational areas or facilities. The boat launch and ramp above the dam is generally muddy; the boat launch and ramp below the dam is dangerously steep and rocky. The sole access point to the dam and the launches is along the Cross Cut Canal access road. This access road was improved in the summer of 2001. The Cross Cut Canal is not considered a recreational resource.

3.7 Environmental Justice

3.6.2 Environmental Consequences

Alternative A – No Action

Public access for recreation would not change. FMID would continue to regulate access to other areas of the canal and protect public safety.

Alternative B – Title Transfer

Although FMID would receive title for the dam, canal, and associated facilities, it is not anticipated that it would change the current public access to recreation near the Cross Cut Diversion Dam. FMID would continue to regulate access to other areas of the canal and protect public safety. River recreation opportunities would remain unchanged if FMID continues to operate only the existing Teton Exchange Wells. If FMID drills an additional five to eight exchange wells, the slight change in surface water hydrology would not likely affect river recreation.

3.7 Environmental Justice

3.7.1 Affected Environment

As discussed previously, FMID service area farms span across Fremont, Madison, and Teton Counties in eastern Idaho. Agriculture is a predominant employer in these counties and provides primarily seasonal and some year-round employment.

3.7.2 Environmental Consequences

Alternative A – No Action

With no changes in water supply and on-farm income, there would be no effects on low-income or minority populations.

Alternative B – Title Transfer

FMID may develop an additional five to eight Teton Exchange Wells in the future to meet demands during periods of low water. This additional water would stabilize the District's water supply, increase efficiency in crop management, and strengthen the socioeconomic conditions in Fremont, Madison, and Teton Counties. These changes would provide some positive impacts to low-income and minority farm laborers during low water years.

3.8 Water Quality

3.8.1 Affected Environment

The Henrys Fork of the Snake River in Fremont and Madison Counties is currently classified as a Class 3A waterway that supports salmonid spawning and primary or secondary recreational contact. The Henrys Fork and Teton Rivers within the project vicinity are not on the State of Idaho's 303(d) list of impaired waters.

The most widespread contaminant of groundwater in the Henrys Fork basin is nitrate (USGS 2000). Nitrate naturally occurs as a result of oxygen and nitrogen combining in the soil, but this process produces the compound only in small amounts. Fertilizers, livestock waste, and septic systems in rural or agricultural areas are the sources of high amounts of excess nitrate. Because nitrate is water soluble, it travels easily through soils and can be carried into the groundwater supply. Wells in sandy soil or wells that are shallow are more likely to have nitrate contamination. The five Teton Exchange Wells have depths ranging from 394 feet to 685 feet; these are considered deep for the area.

Data from the USGS NWIS system was used to categorize the nitrate concentration of groundwater wells in the action area. The analysis included 341 data points that accounted for 224 individual wells sampled between 1972 and 2001. Dissolved nitrate (measured as N) ranged from 0.03 mg/L to 35 mg/L over this time period. Ninety percent of the wells had depth data associated with them, which ranged from 12 feet to over 1,000 feet. The median concentration for this data set was 1.5 mg/L.

Figure 23 shows the average nitrate (as N) in and around the action area. The spatial means for nitrate concentrations at the well sites ranged from 0.434 mg/L to 1.71 mg/L; the overall average was 0.971 mg/L.

Using the hydrology data set discussed in Section 3.2 and the overall spatial mean for the wells, nitrate loading in kilograms per year was calculated and compared to average yearly nitrate loading in the Henrys Fork near Rexburg (USGS Station 13056500). As Figure 24 shows, nitrate loading from the wells accounts for an average of 5 percent of the total load in the river.

Temperature of the groundwater wells during the May through October pumping season in the action area ranges from 4 to 59 °C, but most of the groundwater in the area is nonthermal (less than 29 °C). As Figure 25 shows, the average temperatures within a 2-mile radius of the Teton Exchange Wells are consistently lower during the summer months than the average temperature on the Henrys Fork. A corresponding data set for temperature during the winter months was not available; however,

3.8 Water Quality

groundwater remains relatively constant throughout the year and is approximately equal to the area's annual average air temperature. The 1971 to 2000 average annual air temperature for Rexburg was 6 °C.

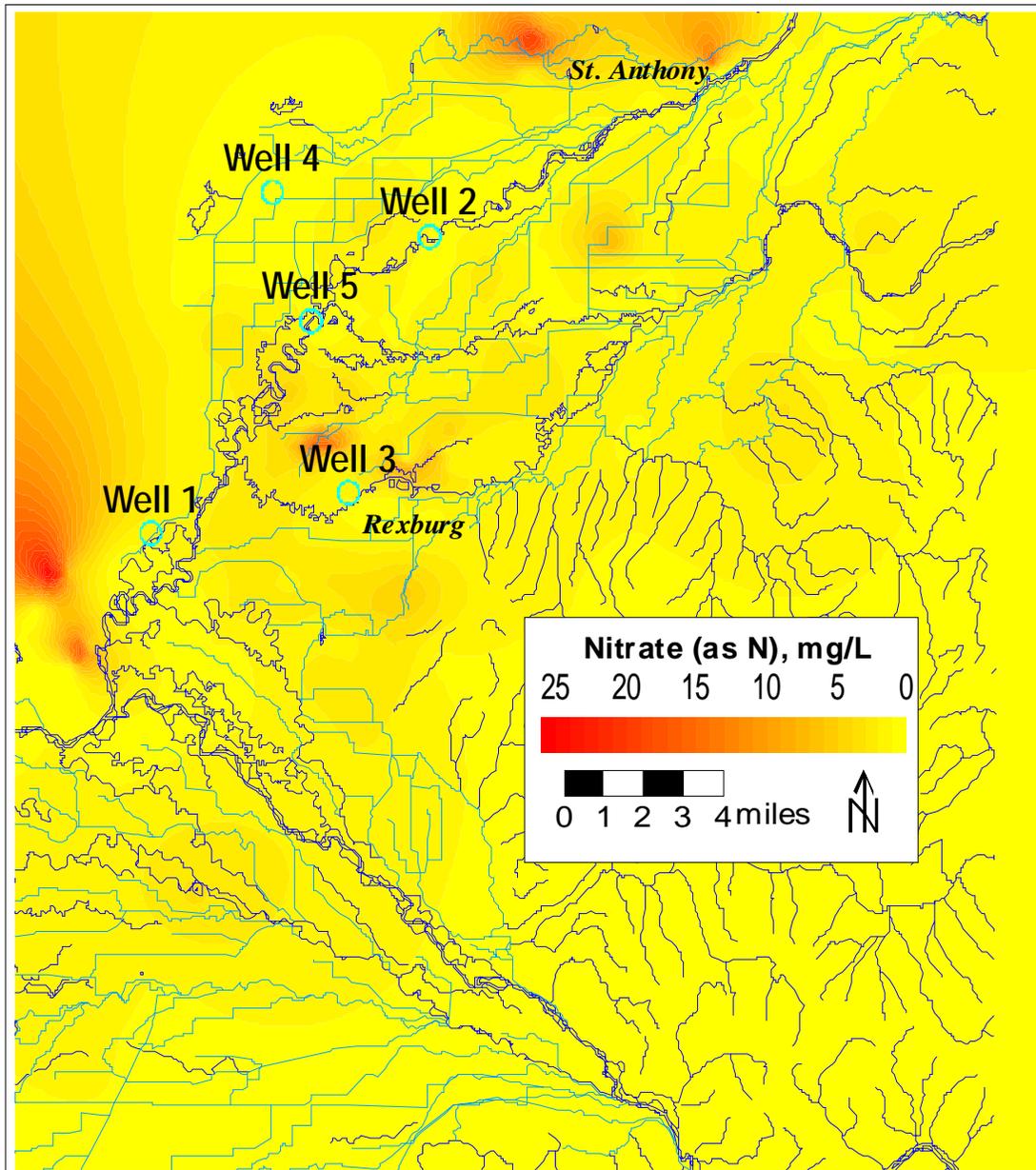


Figure 23. Average nitrate (as N) concentrations in the groundwater of the action area. The five Teton Exchange Wells are also shown.

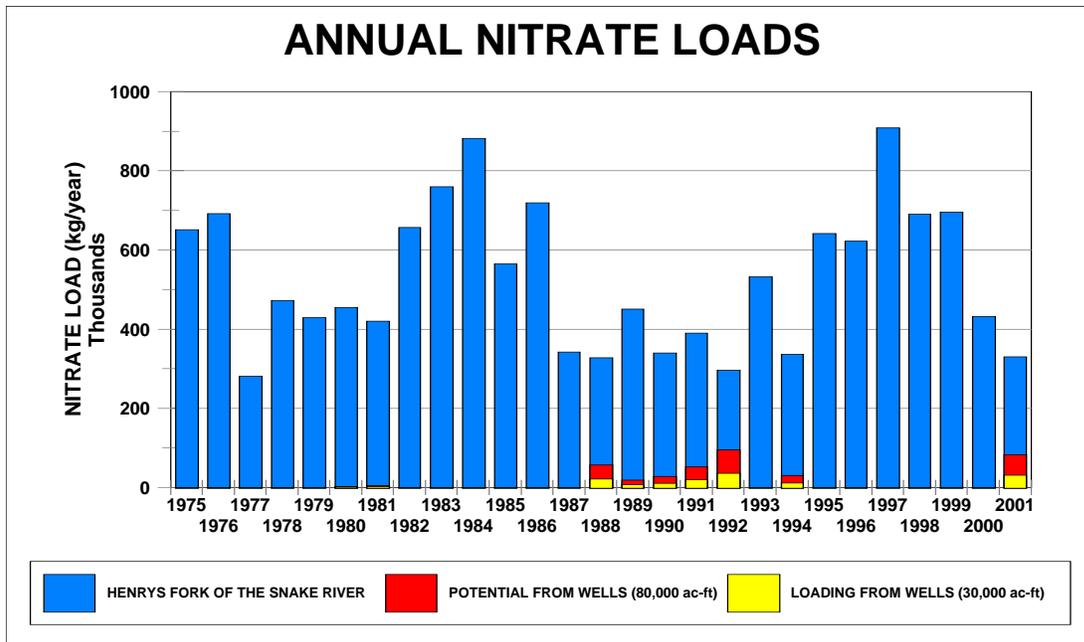


Figure 24. Annual nitrate loading in the Henrys Fork of the Snake River at Rexburg. Loading contributed by the Teton Exchange Wells for the same years is illustrated in yellow. Potential nitrate loading if the 80,000 acre-feet of water is developed is illustrated in red.

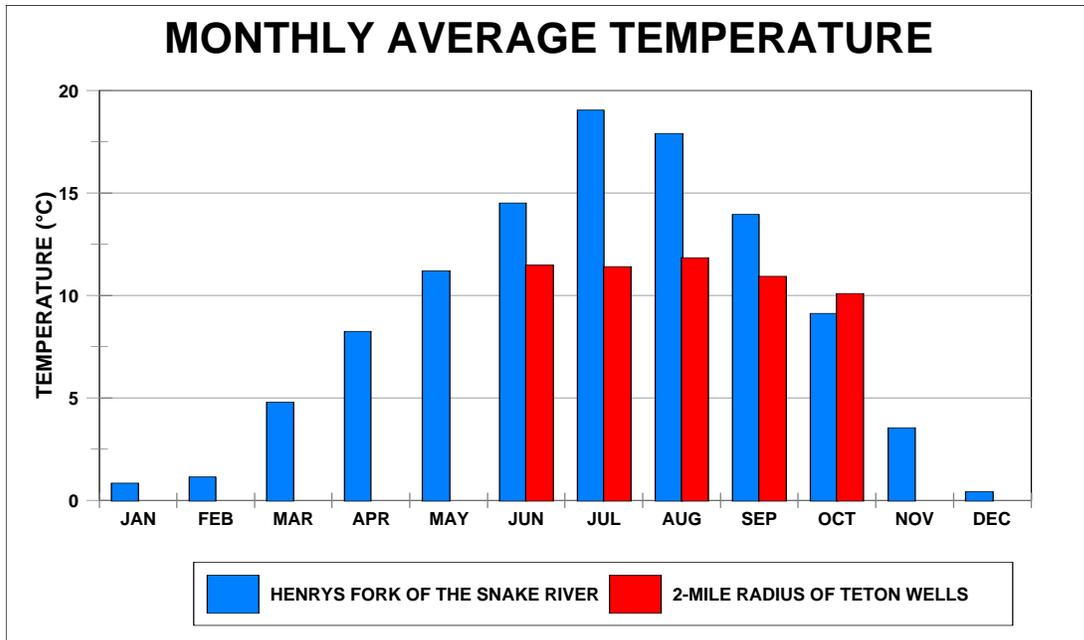


Figure 25. Average monthly temperature of the Henrys Fork of the Snake River at Rexburg as well as the average monthly temperature of groundwater wells within a 2-mile radius of the Teton Exchange Wells.

3.9 Vegetation

3.8.2 Environmental Consequences

Alternative A – No Action

Use of the Teton Exchange Wells during low water years would continue to provide lower temperature water and a slight increase in nitrogen loading to the Henrys Fork.

Alternative B – Title Transfer

FMID may develop an additional five to eight Teton Exchange Wells in the future to meet demands during periods of low water. If the Teton Exchange Wells provided up to 80,000 acre-feet per year of supplemental water supply during the period between 1975 and 2001, the average nitrate loading into the system would have increased by approximately 7 percent during years FMID would have pumped, but the nitrate concentrations would have decreased slightly. Additional groundwater would also slightly decrease the summer water temperatures of the Henrys Fork during these years. Henrys Fork water would likely remain below relevant water quality criteria, and the changes, although positive, would be minimal.

3.9 Vegetation

3.9.1 Affected Environment

The action area is in the upper Snake River basin within the Intermountain Sagebrush Province (Baily 1980). Agriculture has already disturbed and altered much of the adjacent land. The predominant crops in the area are wheat, barley, alfalfa hay, and potatoes. In undisturbed areas, dominant plant species include big sagebrush, willow, and bunch grasses. The proximity of the project to roads and pasture facilities has caused an increase in weedy species, including St. John's wort, common mullein, and pasture grasses. Wildlife habitat elements near the area include wetlands, riparian areas, and river banks with associated forbs and graminoids.

The riparian area of greatest concern is Cartier Slough near the outflow for Teton Exchange Well 1. Though the slough exists without supplemental flows from the exchange well, Well 1 increases its total area and productivity (Ragotzkie 2003).

3.9.2 Environmental Consequences

Alternative A – No Action

There would be no changes to operation, maintenance, or management of the surrounding wetlands and riparian areas. These areas would continue unchanged.

Alternative B – Title Transfer

Well 1, which provides additional water to the Cartier Slough, would continue to provide water in low water years. If FMID drilled five to eight additional wells to provide additional supplemental water during low water years, general cropping types, methods, and predominant vegetation would likely remain unchanged.

3.10 Fisheries

3.10.1 Affected Environment

Historically, the Henrys Fork is one of the most heavily fished streams in Idaho (Coon 1977). However, the reach from the Cross Cut Diversion Dam to the confluence with the South Fork of the Snake River is not on a par with the Henrys Fork below Island Park Dam in Box Canyon. Instream flows in the action area fluctuate throughout the summer according to irrigation needs; however, these flows are apparently sufficient to support a healthy trout population.

The Idaho Department of Fish and Game compiled recent survey information on the reach downstream from the Cross Cut Diversion Dam to the confluence with the South Fork of the Snake River (Garren 2003). They also provided comparison data from the South Fork of the Snake River. Table 14 and Table 15 present these data.

Cutthroat trout are a very minor population component, and the sampling on the Henrys Fork did not recover any cutthroat. Overall, rainbow trout densities in the Henrys Fork are highest in Box Canyon and decline in each successive downstream reach. Whitefish are abundant in all reaches and do not follow a longitudinal change in density. Brown trout have a much smaller role here compared to the South Fork, although densities have increased over the past 15 years.

An issue of concern in the lower reaches of the Henrys Fork is water temperature. During the spring and summer, optimal temperatures for growth of fry and adult rainbow and brown trout in the Henrys Fork range from 14 to 18 °C (Stoltz and Schnell 1991). Temperatures at or above 20 °C may be harmful to adult trout (Raleigh et al. 1984; Stoltz and Schnell 1991).

Table 14. Mountain whitefish per kilometer in four Henrys Fork reaches.

Year	Menan	Chester	Warm River	Box Canyon
2003	--	957	--	717
2002	--	1,371	2,170	705
1987	960	--	--	--

Source: Garren 2003.

3.10 Fisheries

Table 15. Trout per kilometer in four Henrys Fork reaches and the South Fork Snake River.

Year	Henrys Fork Reaches				Snake River (South Fork)
	Menan	Chester	Warm River	Box Canyon	Lorenzo
2003	--	657 (RBT)	830 (RBT)	1,007 (RBT)	--
2002	16 (BRN)	501 (RBT)	802 (RBT)	1,802 (RBT)	1,290 ^b
1990	-- ^a	--	800 (RBT)	1,000 (RBT) ^d	1,293 ^b
1987	62 ^b	--	1,162 (RBT) ^c	3,631 (RBT)	933 ^b

a – too few recaps for estimate

b – all trout combined

Source: Garren 2003.

c – estimate conducted in 1988

d – estimate conducted in 1989

Table 16 displays random summer (May to September) water temperatures from the Rexburg gage for times when the wells that affect the Rexburg-Ashton reach were operated. This table shows that while high daily air temperatures and low river flows contribute to high water temperatures, the water exchange scheme and operation of the pumps do not.

FMID operates the Teton Exchange Wells during low water years when the full FMID storage allocation is not available. This normally occurs when the water in the storage space of Island Park belongs to downstream water users and is therefore passed downstream and results in higher flows at the Rexburg gage. During good water years, when the majority of the water in Island Park belongs to FMID and downstream water users have their rights filled, the District is able to divert more water to their water users and release less water downstream; this results in lower flows at Rexburg.

3.10.2 Environmental Consequences

Alternative A – No Action

There would be no change in distribution or abundance of fish within the action area. Streamflows above and below Cross Cut Diversion Dam would continue at historical levels. FMID's operation and maintenance of the wells, diversion dam, and canal would continue into the future as it has in the past. Water temperature would tend to be high during good water years when flows are below 1,000 cfs and daily air temperatures are above 21 °C for extended periods of time.

Table 16. Historical temperature, flow, and rate data for selected Teton Exchange Wells.

Sample Date	Water Temperature (°C)	Air Temperature (°C)	Instantaneous Discharge (cfs)	Water Pumped per Month from Pumps 2, 3, and 5 (acre-feet)	Computed Pumpage - assumes month-long pumping (cfs)
07-13-1973	20.5	29.0	872	No pumps	
07-07-1975	20.0		6400	No pumps	
08-11-1978	20.0	27.0	1030	0	
Aug 1980	No Summer Data			797	
07-09-1981	20.0	21.0	951	0	
Sep 1981				537	
08-23-1982	20.0	22.0	2110	0	
07-28-1987	21.0	31.0	533	0	
08-05-1988	17.0		955	2779	47
09-13-1988	12.0	15.0	1300	2671	44
07-14-1989	19.0	21.0	1180	1793	30
08-15-1989	19.0	22.0	1390	1972	33
05-23-1991	13.0	14.5	7030	3738	63
06-07-1991	13.0	16.0	6050	3449	58
07-01-1991	17.9	20.0	1490	241	4
08-14-1991	17.0	19.0	713		
05-11-1992	13.0	20.0	1380	1798	30
06-16-1992	11.5	12.0	2050	2553	43
07-29-1992	21.2	27.0	1230	2683	45
07-25-1994	23.7	31.0	853	325	5
08-31-1994	17.8	25.5	746	1339	23
09-13-1994	15.6	24.0	717	2041	34
07-24-1998	20.5	28.0	907	0	0
07-17-2000	20.6	24.0	848	0	0
05-20-2002	14.8	26.3	2710	1990	33
06-17-2002	19.0	24.6	1940	2680	45

Sources: USGS 2003; FMID unpublished data.

Alternative B – Title Transfer

FMID may develop an additional five to eight Teton Exchange Wells in the future to meet demands during periods of low water. Streamflows above Cross Cut Diversion Dam would continue at historical levels. As shown in Section 3.2.2, the highest level of operation of the existing and potential wells would decrease the river flow at Lewisville about 34 cfs, which is less than 3 percent of the average flow in the river during a low water year. This alternative would not cause an adverse impact to river habitat or the fishery in the action area.

3.11 Wildlife

3.11.1 Affected Environment

Common mammals found throughout the upper Snake River basin include mountain cottontails, black-tailed jackrabbits, and white-tailed jackrabbits. Three bat species are also found in the basin; the Townsend's big-eared bat is a State of Idaho species of special concern. Big game in the basin include moose, pronghorn, elk, and mule deer. Table 17 lists possible game species within the action area.

Area waterfowl and shorebirds include green-winged teals, northern pintails, American widgeons, cinnamon teals, northern shovelers, blue-winged teals, mallard ducks, gadwalls, redheads, canvasbacks, Canadian geese, buffleheads, common mergansers, ruddy ducks and whooping cranes. The trumpeter swan, bald eagle, ferruginous hawk, peregrine falcon, sharp-tailed grouse, long-billed curlew, and black tern are Idaho species of special concern found within the action area. The western toad, an Idaho and Federal species of concern, is also found within the action area.

3.11.2 Environmental Consequences

Alternative A – No Action

There would be no change in distribution or abundance of wildlife or habitat within the action area. Streamflows would be maintained at historical levels. FMID would continue operating and maintaining the facilities without change.

Table 17. Game species that may occur in the action area.

Scientific Name	Common Name	Scientific Name	Common Name
<i>Alces alces</i>	moose	<i>Anas acuta</i>	northern pintail
<i>Antilocarpa americana</i>	pronghorn	<i>Anas americana</i>	American wigeon
<i>Cervus elaphus</i>	elk	<i>Anas cyanoptera</i>	cinnamon teal
<i>Odocoileus hemionus</i>	mule deer	<i>Anas clypeata</i>	northern shoveler
<i>Sylvilagus nuttallii</i>	mountain cottontail	<i>Anas discors</i>	blue-winged teal
<i>Lepus californicus</i>	black-tailed jackrabbit	<i>Anas platyrhynchos</i>	mallard duck
<i>Lepus townsendii</i>	white-tailed jackrabbit	<i>Anas strepera</i>	gadwall
<i>Zenaida macroura</i>	mourning dove	<i>Aythya americana</i>	redhead
<i>Centrocercus urophasianus</i>	sage grouse	<i>Aythya valisineria</i>	canvasback
<i>Perdix perdix</i>	gray partridge	<i>Branta canadensis</i>	Canada goose
<i>Phasianus colchicus</i>	ring-necked pheasant	<i>Bucephala albeola</i>	bufflehead
<i>Tympanuchus phasianellus</i>	sharp-tailed grouse	<i>Mergus merganser</i>	common merganser
<i>Anas crecca</i>	green-winged teal	<i>Oxyura jamaicensis</i>	ruddy duck

Alternative B – Title Transfer

The proposed additional wells would provide localized increases in Henrys Fork flow and help sustain farmland habitat for birds and small mammals. Well pumping during low water periods would increase or sustain habitat in areas directly affected by the supplemental flows such as Cartier Slough.

3.12 Endangered Species

3.12.1 Affected Environment

Reclamation first requested a list of species occurring in or near the action area from USFWS and NOAA Fisheries on December 6, 2001. Table 18 shows the current USFWS Federally listed species that reside in, migrate through, or may be affected by operations in the action area. Table 19 shows other State of Idaho species of concern that may occur in the action area.

Table 18. USFWS listed species that may occur in the action area.

Scientific Name	Common Name	Status
<i>Haliaeetus leucocephalus</i>	Bald eagle	Threatened
<i>Spiranthes diluvialis</i>	Ute ladies' tresses	Threatened
<i>Valvata utahensis</i>	Utah Valvata	Endangered

Table 19. State of Idaho species of concern that may occur in the action area.

Scientific Name	Common Name	Status
<i>Bufo boreas</i>	Western toad	Species of Concern
<i>Cygnus buccinator</i>	Trumpeter swan	Species of Concern
<i>Buteo regalis</i>	Ferruginous hawk	Watch Species
<i>Tympanuchus phasianellus</i>	Sharp-tailed grouse	Species of Concern
<i>Numenius americanus</i>	Long-billed curlew	Species of Concern
<i>Myotis yumanensis</i>	Yuma myotis	Watch Species
<i>Myotis ciliolabrum</i>	Western small-footed myotis	Watch Species
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	Species of Concern

A biological opinion from USFWS (1999) found that continued operation and maintenance of Reclamation's Snake River Projects upstream from Lower Granite Dam Reservoir will not adversely affect bald eagles and may affect but is not likely jeopardize the continued existence of Ute ladies'-tresses.

No listed anadromous fish exist in the FMID service area. However, NOAA Fisheries (1999) has indicated in a past biological opinion that streamflow depletions

3.12 Endangered Species

in the upper Snake River could affect Federally listed anadromous fish that occur in the lower Snake River and in the Columbia River. In reality, numerous appropriators between the FMID service area and Twin Falls would be legally entitled to that water. Reclamation initiated contact with NOAA Fisheries on December 6, 2001, regarding potential effects of title transfer on anadromous fish.

A biological opinion from NOAA Fisheries (1999) found that continued operation and maintenance of Reclamation's Snake River Projects upstream from Lower Granite Dam Reservoir were not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. This document included recommendations related to the surety of sufficient salmon augmentation water being delivered. Augmentation water pertained only to storage space in the reservoirs and contracts for that space.

Table 20. NOAA Fisheries listed species that may be affected by the proposed action.

Scientific Name	Common Name	Status
<i>Oncorhynchus nerka</i>	Snake River Sockeye Salmon	Endangered
<i>Oncorhynchus tshawytscha</i>	Snake River Fall Chinook Salmon	Threatened
<i>Oncorhynchus tshawytscha</i>	Snake River Spring/Summer Chinook Salmon	Threatened
<i>Oncorhynchus tshawytscha</i>	Lower Columbia River Chinook Salmon	Threatened
<i>Oncorhynchus tshawytscha</i>	Upper Willamette River Chinook Salmon	Threatened
<i>Oncorhynchus tshawytscha</i>	Upper Columbia River Spring-run Chinook Salmon	Endangered
<i>Oncorhynchus keta</i>	Columbia River Chum Salmon	Threatened
<i>Oncorhynchus mykiss</i>	Upper Columbia River Steelhead	Endangered
<i>Oncorhynchus mykiss</i>	Snake River Basin Steelhead	Threatened
<i>Oncorhynchus mykiss</i>	Lower Columbia River Steelhead	Threatened
<i>Oncorhynchus mykiss</i>	Upper Willamette River Steelhead	Threatened
<i>Oncorhynchus mykiss</i>	Middle Columbia River Steelhead	Threatened

3.12.2 Environmental Consequences

Alternative A – No Action

There would be no change in distribution or abundance of any listed species within or near the action area. Streamflows would be maintained at levels similar to the period of record. FMID would continue operating and maintaining the project without change, and both FMID and Reclamation would remain responsible to comply with ESA requirements. Thus, this alternative would have no effect on any listed species.

Alternative B – Title Transfer

As shown in Section 3.2.2, the highest level of operation of the existing and potential wells would deplete the river flow at Lewisville about 34 cfs, which is less than 3 percent of the average river flow during a low water year. This quantity of water is measurable within the hydrologic model but is not measurable within the river system. Further, 34 cfs, or 3 percent of the average river flow during a low water year, would likely have no measurable biological effect on listed species associated with the river or District lands. Therefore, Reclamation has determined this alternative would have no effect on USFWS listed species.

Section 3.2.2 also describes the flow reductions that may occur on the Snake River at Milner gage. In almost all of the months in the modeled period from 1980 to 2000 (238 of the 252 months), there was no reduction in flow at this gage. In 8 of these months, the flow reduction at Milner was less than 10 cfs; in 4 of the months, the flow reduction was from 11 to 20 cfs. Only twice did the flow reductions elevate to the higher levels of 121 and 533 cfs; during the largest modeled flow reduction, inflows at Brownlee Reservoir would have been reduced only 2 percent, and outflows from Lower Granite Dam would have been reduced only 0.5 percent.

As the *Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act* (NOAA Fisheries and USFWS 1998) notes, a “may affect but not likely to adversely affect” determination is warranted when the proposed action may affect listed species, but the agency determines these effects on listed species will be discountable, insignificant, or completely beneficial. In this case, Reclamation views the modeled 2 percent reduction in flow in 0.4 percent of months as an insignificant effect that does not reach the scale where take occurs. Therefore, Reclamation has determined this alternative may affect but would not likely adversely affect NOAA Fisheries listed species in the Snake and Columbia Rivers.

Because the associated facilities would leave Federal ownership, Section 7 of the ESA would only apply to new activities at the project that require Federal approval or that have Federal funding. Section 9 of the ESA would continue to prohibit the taking of endangered species.

3.13 Hazardous Materials and Waste

Reclamation completed a Hazardous Materials and Wastes Survey on September 16, 2003. There are no hazardous materials in the action area. None of the alternatives would have any affect on hazardous materials. Appendix D contains the complete report.

3.14 Cultural Resources

Cultural resources are historic, archaeological, architectural, and traditional cultural properties that reflect the national heritage. Significant cultural resources are referred to as “historic properties.” Federal law and regulation define “historic properties” to include prehistoric and historic sites, buildings, structures, districts, and objects that are included in or eligible for inclusion in the National Register of Historic Places (National Register). “Traditional Cultural Properties” (TCPs) are locations that have special heritage value to contemporary communities (often American Indian groups). This special value is because the TCPs are associated with the historical practices or beliefs needed to maintain a culture’s identity and are eligible to the National Register.

Federal laws and regulations require agencies both to identify cultural resources that will be affected by a Federal action and to address the effects of the agency’s actions on properties eligible for or on the National Register. The National Historic Preservation Act (NHPA) is the principal law defining these management responsibilities. Section 106 of NHPA and related regulations (found in 36 CFR Part 800) define a phased data collection and consultation process to implement the agency’s responsibilities. The process requires an agency to first identify cultural resources in the impact area; then, in consultation with the Idaho State Historic Preservation Office (SHPO), it must evaluate their eligibility for listing on the National Register. If eligible sites are present, then further consultation is required to determine how they would be affected by the action and appropriate means to treat adverse effects.

3.14.1 Affected Environment

In the fall of 2002, Sagebrush Consultants conducted a Class III cultural resources survey of the action area. The survey included the Cross Cut Diversion Dam, the Cross Cut Canal’s two outlet works, the full length of the Cross Cut Canal, the Last Chance Canal, and the five well locations. This survey identified a total of 53 cultural resource properties and 7 isolated finds in the action area. These cultural resource properties included both features that are integral parts of or directly associated with the function of the canal, such as concrete check structures and drops, and features that are associated with the canal but are not an integral part of its function, such as metal flumes, bridges, siphons, and basalt-lined drainage inlets.

Appendix E contains related correspondence with the SHPO, and Appendix F contains the Memorandum of Agreement with the SHPO.

Using criteria set forth in 36 CFR Part 60.4, recommendations regarding site eligibility to the National Register of Historic Places were made for each site. Of the 53 recorded sites, 23 have been recommended eligible to the National Register. The basis for the National Register recommendations relates to their design and construction as well as their historic role in the development of agriculture in the upper Snake River basin.

In addition to making use of the National Register criteria, recommendations regarding site eligibility to the National Register were also based upon the historic integrity of the site. Sites not retaining their historic integrity, or sites not meeting the National Register criteria, or both, were recommended to be not eligible for listing on the National Register. Sites that were found to retain their integrity and to meet one or more of the four criteria set forth in 36 CFR Part 60.4 were recommended eligible for listing on the National Register.

The action area for this title transfer is known to have been the aboriginal territory of the Fort Hall Shoshone-Bannock Tribes. Reclamation has communicated with the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation about the proposed FMID title transfer. The Tribes responded by pointing out that water is a valuable cultural resource to the Tribes and is considered a traditional cultural property due to its sacredness. However, the Tribes have not indicated specific locations within the area of the title transfer known to contain TCPs or sensitive areas harboring such sites. There is no indication that the Tribes currently use the lands involved in the title transfer for traditional cultural or religious purposes. Much of the land associated with the title transfer has been transformed in the past century due to agricultural development and construction and maintenance of associated irrigation systems.

3.14.2 Environmental Consequences

Alternative A – No Action

There would be no effect on historic properties. Reclamation would continue to consult with the SHPO for Federal undertakings and would work with the SHPO to mitigate any adverse effects on historic properties.

Alternative B – Title Transfer

If the title were transferred to FMID, application of the NHPA to potential future actions by FMID would be limited to activities involving funds or support from Federal agencies. Under those circumstances, Section 106 compliance would be the responsibility of the participating Federal agency. Alternatively, protection of archaeological resources under the Archaeological Resources Protection Act (ARPA)

3.15 Sacred Sites

would cease if the title was transferred since this law is linked with Federal ownership.

Under 36 CFR Part 800, the transfer of an historic property out of Federal ownership without protection is an adverse effect. The Class III cultural resources survey conducted for the proposed title transfer identified 23 historic properties; Reclamation has completed Section 106 consultations with the SHPO over National Register eligibility, effects, and mitigation of adverse effects regarding the 23 historic properties.

As described in Appendix F, Reclamation and the Idaho SHPO agreed that Reclamation would mitigate the adverse effect on historic property to meet Reclamation's responsibilities under Section 106 of the NHPA. The June 25, 2003, letter from the Idaho SHPO to Reclamation asserts that Reclamation's submissions of site records, final survey report, and photographs meet the documentation requirements for mitigation.

If the additional five to eight exchange wells are located on lands included in the title transfer, there would be no effect to historic properties other than those already addressed. If FMID privately pursues the wells' construction on non-Federal lands without any Federal funding or assistance, there could be an effect on cultural properties; however, Section 106 of the NHPA would not then apply. If Federal lands or money are involved in the construction, the lead Federal agency would be required to carry out Section 106 consultations over identification of historic properties, effects to historic properties, and mitigation of historic properties.

3.15 Sacred Sites

Federal responsibility for Indian sacred sites is defined in Executive Order 13007. The executive order defines Indian sacred sites as specific, discrete, narrowly delineated locations on Federal land identified by Indian tribes or knowledgeable practitioners as sacred by virtue of their religious significance to, or ceremonial use by, an Indian religion.

3.15.1 Affected Environment

Reclamation is not aware of any Indian sacred sites on the Federal lands under consideration for the title transfer. The Tribes have not indicated specific locations within the area of the title transfer known to contain sacred sites or sensitive areas harboring such sites, and there is no indication that these lands are used for Tribal religious purposes. Due to surface modifications and modern encroachments that

have taken place with respect to the Cross Cut Diversion Dam and Cross Cut Canal, Reclamation believes it is very unlikely that Indian sacred sites would be present.

3.15.2 Environmental Consequences

Alternative A – No Action

FMID would continue operating and maintaining the project without change. Within the guidelines established by the executive order, Reclamation would continue to ensure that its actions do not adversely affect Indian sacred sites, if such sites are present, to the extent practicable, and that access to and ceremonial use of Indian sacred sites is accommodated.

Alternative B – Title Transfer

If Indian sacred sites were present on any of the fee title rights-of-way included in the transfer, then Indian religious practitioners would lose the right of access to those locations for religious purposes unless FMID granted permission for access. FMID has no plans to deny access to Indian sacred sites, if present.

Since the right of access under Executive Order 13007 is provided only for Federal fee lands, there would be no loss of the right to access for those easement lands or areas where Reclamation simply holds a non-fee interest. The executive order does not authorize mitigation for loss of access to or damage to Indian sacred sites. Therefore, if such sites were present on fee title lands included in the transfer, no mitigation would occur as part of the undertaking.

3.16 Indian Trust Assets

3.16.1 Affected Environment

Indian Trust Assets (ITA) are legal interests in property held in trust by the United States for Indian Tribes or individuals. The Secretary, acting as the trustee, holds many assets in trust for Indian Tribes or Indian individuals. Examples of things that may be trust assets are lands, minerals, hunting and fishing rights, and water rights. While most ITAs are on-reservation, trust assets may also be off-reservation.

The United States has an Indian trust responsibility to protect and maintain rights reserved by or granted to Indian Tribes or Indian individuals by treaties, statutes, and executive orders. These are sometimes further interpreted through court decisions and regulations.

3.16 Indian Trust Assets

The Shoshone-Bannock Tribes, a Federally-recognized Tribe located at the Fort Hall Indian Reservation in southeastern Idaho, have trust assets both on-reservation and off-reservation. The Fort Bridger Treaty was signed and agreed to by the Bannock and Shoshone headman on July 3, 1868. The treaty states in Article 4, that members of the Shoshone-Bannock Tribes “shall have the right to hunt on the unoccupied lands of the United States.” The Tribes believe their right extends to the right to fish. The Fort Bridger Treaty for the Shoshone-Bannock has been interpreted in the case of *State of Idaho v. Tinno*, an off-reservation fishing case in Idaho. The Idaho Supreme Court determined that the Shoshone word for “hunt” also included fishing. Under *Tinno*, the Court affirmed the Tribal Members’ right to take fish off-reservation pursuant to the Fort Bridger Treaty (Shoshone-Bannock Tribes 1994). The Federal lands for this proposed project lie within the ceded territory of the Shoshone-Bannock Tribes.

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

The Northwestern Band of the Shoshone Indians, a Federally-recognized Tribe without a reservation, possess treaty-protected hunting and fishing rights that may be exercised on unoccupied lands within the area acquired by the United States pursuant to the Fort Bridger Treaty of 1868. No opinion is expressed as to which areas maybe regarded as “unoccupied lands.”

Other Federally-recognized Tribes do not have off-reservation ITAs but may have cultural and religious interests in the area. These interests may be protected under historic preservation laws and the Native American Graves Protection and Repatriation Act (NAGPRA). Sections 3.14 and 3.15 discuss other Tribal interests.

3.16.2 Environmental Consequences

Alternative A – No Action

Indian Trust Assets that may exist on these Federal lands would be the right to hunt and the right to fish. Because the United States would retain title, there would be no effect on Indian Trust Assets.

Alternative B – Title Transfer

Indian Trust Assets that may exist on these Federal lands would be the right to hunt and the right to fish. Since the United States would transfer lands out of Federal

ownership, the right to hunt or the right to fish would no longer apply on the affected lands.

Reclamation has communicated with the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation about the proposed title transfer. The response of the Fort Hall Business Council and staff members is that any reduction of Federal lands would affect their Indian Trust Assets. The right to hunt applies on Federal lands; land transferred out of Federal ownership would diminish the land base on which they would have an opportunity to hunt.

3.17 Cumulative Impacts of the Proposed Alternative

The Drought Management Plan and the planning process described in Sections 2.2.5 and 4.1.3 would likely improve water management practices in the Henrys Fork area. Because FMID proposes to work cooperatively with interested stakeholders, potential management changes such as flow shaping during low water years would likely provide benefits to fisheries and recreation. However, without more definition as to what actions would need to be taken to provide for benefits to the ecological, social, and economical aspects of water management in the watershed, it is not possible to state specific cumulative effects that could occur. It is not currently possible to determine if the proposed alternative would trigger any additional Federal action.

The proposed hydroelectric powerplant that may be constructed on the Cross Cut Diversion Dam is not part of this title transfer process. However, the Federal Council on Environmental Quality (CEQ) considers it a “direct action” because it occurs in the same location and relative time frame as the Proposed Action. The hydro project could affect regional socioeconomics, recreational use around the diversion dam, streamflows, and downstream water quality. Because the Proposed Action is primarily an administrative action (as opposed to a physical alteration of the environment), there are no measurable direct cumulative effects. The powerplant could be constructed regardless of ownership of the diversion. The hydro project would require a FERC license for construction and operation. This licensing process is a Federal action; full compliance with environmental regulations would be required.

Actions taking place later in time and farther removed from the Proposed Action include the reconstruction of the spillway and drain system at Grassy Lake Dam. The Finding of No Significant Impact for the Grassy Lake Dam, Safety of Dams Modification Report environmental assessment was signed in October 2002 (USBR 2002). This Reclamation Safety of Dams Program activity is scheduled for

3.17 Cumulative Impacts of the Proposed Alternative

2004. Construction of a new spillway and drain system will occur on the dam embankment and all related activities will be confined to previously disturbed areas and existing roadways. Again, impacts associated with this activity combined with the Proposed Action are not measurable. The Safety of Dam rehabilitation program will occur regardless of ownership of the facilities to be transferred. The various alternatives being considered for Grassy Lake Dam are not a result of the proposed changed ownership.

In the recent past, FMID requested title to all its facilities and water rights. The District has since modified the request to include only the facilities listed in the Conveyance Act. Implementing the Proposed Action neither aids nor restricts the future transfer of additional facilities.

Chapter 4 COORDINATION AND CONSULTATION

Fremont-Madison Irrigation District has been pursuing transfer of title of certain Reclamation-held properties and rights-of-way used for operations and maintenance of the District since 1996. This chapter describes recent consultation and coordination activities directly related to the Proposed Action.

4.1 Agency Consultation

4.1.1 National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) (as amended in 1992) requires that Federal agencies consider the effects that their projects have on historic properties. Section 106 of this act and its implementing regulations (36 CR Part 800) provides procedures that Federal agencies must follow to comply with NHPA on specific undertakings.

To comply with Section 106 of NHPA, Federal agencies must consult with the State Historic Preservation Officer (SHPO), Native American tribes with a traditional or culturally-significant religious interest in the study area, and the interested public. Federal agencies must identify historic properties in the area of potential effect for a project. The significance of historic properties must be evaluated, the effect of the project on the historic properties must be determined, and the Federal agency must mitigate adverse effects the project may cause on significant resources.

In the fall of 2002, Sagebrush Consultants performed a Class III cultural resource survey of the study area. Reclamation then began consultations with the Idaho State Historical Preservation Officer. On April 3, 2003, Reclamation sent a letter to the Advisory Council on Historic Preservation and invited its participation in the consultation with SHPO. The Advisory Council declined to join the consultation. Appendix E contains related correspondence with the Historic Preservation Officer at the Idaho Historical Society, and Appendix F contains the Memorandum of Agreement with the SHPO.

4.1 Agency Consultation

4.1.2 Endangered Species Act Section 7 Consultations

The Endangered Species Act requires all Federal agencies to ensure that their actions do not jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat.

On December 6, 2001, Reclamation sent letters to USFWS and NOAA Fisheries to request current lists of listed and proposed species for the proposed area which may be affected by the potential transfer of title. Appendix G contains relevant correspondence between Reclamation and the Services.

Reclamation concludes that the Proposed Action would have no effect on USFWS listed species. Reclamation is not required to seek a letter of concurrence for determinations of no effect.

Reclamation concludes that the Proposed Action may affect but would not likely adversely affect NOAA Fisheries listed species in the Snake and Columbia Rivers. Appendix G contains the NOAA Fisheries letter of concurrence for this determination.

4.1.3 Drought Management Planning

The Conveyance Act requires the Secretary to initiate a drought management planning process within 60 days of the Act's passage. The Conveyance Act also requires the Secretary to submit a report to Congress, including a final drought management plan, within 18 months of the Act's passage.

In October 2003, Reclamation and several stakeholders initiated discussions regarding the drought management planning process. Over the next 3 months, various members of the Henry's Fork Foundation, IDFG, The Nature Conservancy, FMID, Fall River Electric, Reclamation, Trout Unlimited, and others attended several informal meetings. In February 2004, Burnett and Van Kirk (2004) presented a statistical analysis of the existing hydrograph, and Van Kirk (2004) proposed a framework for proceeding with the planning process. These presentations were made to approximately 50 attendees. Although consensus was not called for, there was no dissent with the presented ideas or the proposed direction. Currently, only the basic philosophy is documented. A schedule for further planning and implementation has not yet been proposed.

4.2 Tribal Coordination and Consultation

Reclamation has sought to keep Tribes informed regarding proposed title transfers and specifically the proposed Fremont-Madison Title Transfer. (See Appendix H for a list of letters and meetings). Reclamation will continue to keep the Tribes informed and to seek their comments.

4.3 Public Involvement

Scoping meetings, public information gatherings, and discussions with interest groups have been ongoing since 1996. In December 2001, FMID decided to exclude the Grassy Lake and Island Park Dams from the facility transfer request. On December 20, 2001, Reclamation sent out a scoping letter to a mailing list of interested parties that had been involved in the transfer discussion since 1996 plus Federal, State, and local agencies, Tribal Governments, and media outlets. Reclamation received written comments from twenty interested individuals and groups. The respondents' issues and questions centered on these primary themes:

- Loss of representation in water use issues
- Loss of public access
- How the well operations related to system operations
- How many of the 40 potential wells would FMID drill
- Use water from the wells for fish and wildlife benefits
- Potential impacts on Tribal water rights
- Cumulative impacts of future actions related to the transfer
- Impacts of the proposed hydroelectric plant at Cross Cut Diversion Dam
- Impacts on groundwater caused by the wells
- Economic value of the water right associated with the wells
- Economic or other compensation for transfer
- Issues surrounding unauthorized project water use

Reclamation received several comments that expressed full support for title transfer.

On January 14, 2002, Reclamation and FMID issued a news release announcing a public meeting to receive comments on the transfer proposal. Reclamation also prepared a media packet that included a press release, maps of the facilities included in the proposed transfer, a question and answer sheet, a comment form, and the scoping document. The January 31, 2002, meeting, held in Rexburg, Idaho, had 32 individuals present.

4.3 Public Involvement

During the meeting, Reclamation and FMID personnel conducted an open forum discussion. During this open forum, attendees asked questions centered on these topics:

- The number of wells proposed to be drilled
- Unauthorized lands within the District
- Whether Grassy Lake Dam and Island Park Dam were being considered for title transfer
- Cumulative impacts of the Proposed Action
- Relationship to the proposed hydroelectric plant at Cross Cut Diversion Dam

On March 21, 2002, Reclamation gave a presentation on the proposed title transfer at the Annual Joint Irrigation Managers Meeting in Glens Ferry, Idaho. About 14 irrigation districts were represented at the meeting. The only question asked dealt with how the wells were related to the overall Teton Basin Project.

On May 27, 2004, Reclamation distributed the final EA, letters notifying the recipient of the final EA's availability, and press releases to the offices, organizations, individuals, and media outlets identified on the following distribution list. Reclamation also posted the draft EA on the Pacific Northwest Region's website. Reclamation received four comment letters. Appendix I contains these comments and Reclamation's response, where appropriate.

DISTRIBUTION LIST

Reclamation sent the following offices, organizations, individuals, and media outlets either the final EA, a letter notifying the recipient of the final EA's availability, or a press release.

U.S. Congressional Delegation from the State of Idaho

United States Senate

Honorable Larry Craig
Honorable Mike Crapo

House of Representatives

Honorable Butch Otter, 1st District
Honorable Mike Simpson, 2nd District

Tribal Interests

Shoshone-Bannock Tribes

Honorable Fred Auck
Mr. Chad Colter
Ms. Elese Teton
Ms. Carolyn Boyer Smith

Northwestern Band of the Shoshone Nation

Honorable Gwen Davis
Mr. Bruce Parry

Shoshone-Paiute Tribes

Honorable Terry Gibson
Mr. Robin Harms

Bureau of Indian Affairs

Mr. Paul Young, Eastern Nevada Agency
Mr. Eric LaPointe, Fort Hall Agency
Mr. Charles Calica, Northern Idaho Agency

Nez Perce Tribe

Honorable Anthony Johnson, Nez Perce Tribal Executive Committee
Mr. Mike Penney

Idaho State Legislature

24th District

Senator Laird Noh
Representative Leon E. Smith
Representative Sharon L. Block

27th District

Senator Denton Darrington
Representative Scott Bedke
Representative Bruce Newcomb

25th District

Senator Clint Stennett
Representative Wendy Jaquet
Representative Tim Ridinger

28th District

Senator J. Stanley Williams
Representative Dennis M. Lake
Representative Joseph S. Cannon

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Representative John A. "Bert" Stevenson
Representative Maxine T. Bell

29th District

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Representative Allen R. Andersen
Representative Elmer Martinez

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Representative Donna H. Boe
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Representative Lee Gagner

34th District

Senator Brent Hill
Representative Mack G. Shirley
Representative Dell Raybould

35th District

Senator Don M. Burtenshaw
Representative JoAn E. Wood
Representative Lenore Hardy Barrett

Federal Agencies

Bonneville Power Administration, Idaho
Falls Region

Bureau of Land Management, Upper
Snake River District, Idaho Falls Field
Office

Caribou-Targhee National Forest

Ashton/Island Park Ranger District
Supervisor's Office
Teton Basin Ranger District

Natural Resources Conservation Service

Clark and Madison SCD
Idaho State Office
Madison SCD
Teton SCD
Yellowstone SCD

National Marine Fisheries Service

Idaho Habitat Branch
Northwest Regional Office
Northwest Region Hydropower
Division

Northwest Power and Conservation
Council, Idaho Office

U.S. Army Corps of Engineers, Idaho
Falls Field Office

U.S. Fish and Wildlife Service

Snake River Basin Office
Eastern Idaho Field Office

U.S. Geological Survey

Boise Field Office
Idaho Falls Field Office

State and Local Government Agencies

City of Driggs

City of Idaho Falls

City of Pocatello, Water Department

Committee of Nine

Albert Lockwood
Leonard Beck
Scott Breeding
Don Hale
Jack Hoopes
Larry Moore
Dale Rockwood
Pat Tyrell
Clen Atchley
Paul Berggren
Charles Coiner
Lynn Harmon
Larry Kerbs
Del Raybould
Dale Swensen
Mike Wilkins

District 37 Watermaster

Governor Dirk Kempthorne

Idaho Department of Environmental
Quality

State Office
Idaho Falls Regional Office

Idaho Department of Fish and Game

Headquarters Office
Upper Snake Region

Idaho Department of Lands

Idaho Department of Parks and Recreation
 South Idaho Field Bureau Chief
 Harriman State Park
Idaho Department of Transportation,
District 6
Idaho Department of Water Resources
 State Office
 Eastern Regional Office
Idaho Historical Society, State Historical
Preservation Office

Idaho Soil Conservation Commission
Fremont County Commission
Madison County Commissioners
Teton County Commissioners
Wyoming Department of Agriculture
Wyoming State Engineer's Office,
Division IV
Wyoming Water Development Office

Irrigation Districts

Aberdeen Springfield Canal Company
A&B Irrigation District
American Falls Reservoir District No. 2
Bell Rapids Irrigation District
Blackfoot Irrigation Company
Boom Creek Canal Company
Burgess Canal and Irrigation Company
Burley Irrigation District
Butler Island Canal Company
Butte and Market Lake Canal Company
Canyon Creek Canal Company, Inc.
Clark & Edwards Canal
Cordett Slough Ditch Company
Craig-Mattson Canal Company
Dalton Gardens Irrigation District
Dilts Irrigation Company Ltd.
Egin Bench Canal Company
Enterprise Irrigation District
Fall River Electric Cooperative Inc.
Falls Irrigation District
Farmers Friend Irrigation Company Ltd
Farmers Own Canal Company
Fremont-Madison Irrigation District
Hillsdale Irrigation District

Idaho Irrigation District
Island Irrigation Company
King Hill Irrigation
Labelle Irrigation Company
Lenroot Canal Company
Liberty Park Irrigation Company
Long Island Irrigation Company
Lowder Slough Canal Company
Marysville Canal & Improvement
Milner Irrigation District
Minidoka Irrigation District
New Lavaside Ditch Company
New Sweden Irrigation District
North Fork Reservoir Company
North Rigby Irrigation and Canal
Company
North Side Canal Company
Oakley Canal Company
Osgood Canal Company
Owner's Mutual Irrigation Company
Palisades Water Users Inc
Parks and Lewisville Irrigation Company
Parsons Ditch Company
Peoples Canal & Irrigation Company
Progressive Irrigation District

Distribution List

Reid Canal Company	Truckee-Carson Irrigation District
Reid Irrigation District Canal Company	Twin Falls Canal Company
Rigby Canal & Irrigation Company, Inc.	Watson Slough Ditch Company
Rudy Irrigation Canal Company	Wearyrick Ditch Company
Salmon River Canal Company	West Branch Canal Company
Snake River Valley Irrigation District	West Labelle Irrigation Company
South West Irrigation District	West Side Mutual Canal Company
Squirrel Creek Irrigation & Canal	Wilford Canal Company
Sunnydell Irrigation District	Wilford Irrigation and Manufacturing Company
Texas Slough Irrigation Canal Company	Woodville Canal Company
Trego Ditch Company	Yellowstone Power and Irrigation

Libraries

Burley Public Library	Madison Library District
Demary Memorial Library	Menan-Annis Library
Idaho Falls Public Library	Rigby Library
Jefferson County Library	Twin Falls Public Library

Interested Organizations, Entities, and Individuals

All Seasons Angler	Ellissa Brant
Ken Allein	Brigham Young University - Idaho
Gary Arnold	Garon Brower
Ashton Area Development Commission	Randy Brown
Dennis Aslett	C.A. Carleson
Astaris	Jim Cecil
Gene Bair	CH2M Hill
Layne Ball	Ted Chu
John Barclay	Clement Brothers
Barker, Rosholt & Simpson	Max Cooper
Basic American Foods	Jerry Crabbs
J.T. Beech	Brian Davidson
Lyn Benjamin	Eddie Delonas
Blackfoot Watershed Council	Gail Dial
David Blew	Garl Drake

Ducks Unlimited	Idaho Wildlife Council
Shaun Dustin	Intermountain Aquatics
Ecosystems Research Institute	Jackson Hole Conservation Alliance
Encore Productions Sound Recording Solutions	JR Simplot Company
Charles Faux	Darwin Josephson
Joseph C. Flood	Harry Kennedy
Dennis Fransen	Winston Larsen
Friends of Fall River	Sheralee Lawson
Jim Gerber	Richard Lemargie
Wesley Goff	Claude E. Lilya
Greater Yellowstone Coalition	Margaret Lindsley
Greenway Committee	Ling & Robinson
Van Greenwell	Jim Long
Rob Griffel	Mark Lusk
Burke Hanks	Ken Mackay
Phil Hanks	Denny Manning
Henry's Fork Foundation Inc.	Jeff Marotz
Henry's Fork Watershed Council	Becky Martin
Henry's Fork Anglers	Victor Martoz
Keene Hueftle	Marysville Hydro
Jenny Hiatt	Max Parkinson and Sons Inc.
Idaho Association of Soil Conservation Districts	McCain Foods Incorporated
Idaho Cattlemen's Association	David R. Mead
Idaho Conservation League	John Meiners
Idaho Farm Bureau Federation	Mike Merigliano
Idaho Nature Conservancy	Reed Murdock
Idaho Power Company	The Nature Conservancy
Idaho Rivers United	North Fork Protective Association
Idaho Salmon & Steelhead Unlimited	Northwest Power Service
Idaho State University Fly Fishing	Darin Olson
Idaho Water and Energy Resources Research Institute	PacifiCorp
Idaho Water Users Association Inc.	Phil Murdock
	Portneuf Watershed Council
	Mark R Ricks

Distribution List

Val Schwendiman	Trout Unlimited
Sheridan Golden Eagle Ranch	University of Idaho Clark County Extension Office
Brent Singleton	Upper Snake River Cutthroats
Dacia Soulliere	Upper Snake River Fly Fishers
John Taylor	Utah Power and Light
Teton Regional Land Trust	Water Based Recreation
Tom Thompson	Western Watershed Project
Chuck Trost	Yellowstone Business Partnership

Media

Aberdeen Times	KID-FM & KSIF-FM
Associated Press--Idaho	KIDK - Channel 3
Brigham Young University - Idaho Scroll	KIFI-TV
Buhl Herald	KIVI - Channel 6
Capital Press--Idaho	KKVI
Farm Times of Idaho	KMVT - Channel 11
Fremont County Herald-Chronicle	KPVI - Channel 6
Glenns Ferry Gazette	KRCD-AM
Gooding County Leader	KRIC
Idaho Enterprise	KSEI-KLITE & KSEI-FM
Idaho Falls Post Register	KUPI-AM/FM Country
Idaho Press Tribune	KWIK-AM & KPKY-FM
Idaho State Journal	KZBQ
Idaho State University Bengal	Lincoln County Journal
Idaho Statesman	Minidoka County News
Jackson Hole News & Guide	Morning News
Jefferson Star	Power County Press
KADQ-FM	Rexburg Standard-Journal
KART-AM & KMVX-FM	Shelley Pioneer
KAWZ Radio & KEFX	Sho-Ban News
KBAR-AM, KZDX-FM, KBBK-AM, & KNAQ-FM	South Idaho Press
KCIR	Teton Valley News
Kezj, Klix-Am & Klix-Fm Radio	Times-News

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Wytzes 1980	Wytzes, J. 1980. <i>Development of a Groundwater Model for the Henrys Fork and Rigby Fan Areas, Upper Snake River Basin, Idaho</i> . Research Technical Completion Report submitted to IDWR.

References

Appendix A. Fremont-Madison Conveyance Act

Public Law 108–85
108th Congress

An Act

To authorize the Secretary of the Interior to convey certain facilities to the Fremont-Madison Irrigation District in the State of Idaho.

Sept. 30, 2003
[S. 520]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Fremont-Madison Conveyance Act”.

Fremont-Madison Conveyance Act.

SEC. 2. DEFINITIONS.

In this Act:

(1) **DISTRICT.**—The term “District” means the Fremont-Madison Irrigation District, an irrigation district organized under the law of the State of Idaho.

(2) **SECRETARY.**—The term “Secretary” means the Secretary of the Interior.

SEC. 3. CONVEYANCE OF FACILITIES.

(a) **CONVEYANCE REQUIREMENT.**—The Secretary of the Interior shall convey to the Fremont-Madison Irrigation District, Idaho, pursuant to the terms of the Memorandum of Agreement (MOA) between the District and the Secretary (Contract No. 1425–01–MA–10–3310), all right, title, and interest of the United States in and to the canals, laterals, drains, and other components of the water distribution and drainage system that is operated or maintained by the District for delivery of water to and drainage of water from lands within the boundaries of the District as they exist upon the date of enactment of this Act, consistent with section 8.

(b) **REPORT.**—If the Secretary has not completed any conveyance required under this Act by September 13, 2004, the Secretary shall, by no later than that date, submit a report to the Congress explaining the reasons that conveyance has not been completed and stating the date by which the conveyance will be completed.

Deadline.

SEC. 4. COSTS.

(a) **IN GENERAL.**—The Secretary shall require, as a condition of the conveyance under section 3, that the District pay the administrative costs of the conveyance and related activities, including the costs of any review required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), as described in Contract No. 1425–01–MA–10–3310.

(b) **VALUE OF FACILITIES TO BE TRANSFERRED.**—In addition to subsection (a) the Secretary shall also require, as a condition of the conveyance under section 3, that the District pay to the

United States the lesser of the net present value of the remaining obligations owed by the District to the United States with respect to the facilities conveyed, or \$280,000. Amounts received by the United States under this subsection shall be deposited into the Reclamation Fund.

SEC. 5. TETON EXCHANGE WELLS.

(a) **CONTRACTS AND PERMIT.**—In conveying the Teton Exchange Wells pursuant to section 3, the Secretary shall also convey to the District—

(1) Idaho Department of Water Resources permit number 22-7022, including drilled wells under the permit, as described in Contract No. 1425-01-MA-10-3310; and

(2) all equipment appurtenant to such wells.

(b) **EXTENSION OF WATER SERVICE CONTRACT.**—The water service contract between the Secretary and the District (Contract No. 7-07-10-W0179, dated September 16, 1977) is hereby extended and shall continue in full force and effect until all conditions described in this Act are fulfilled.

SEC. 6. ENVIRONMENTAL REVIEW.

Prior to conveyance the Secretary shall complete all environmental reviews and analyses as set forth in the Memorandum of Agreement referenced in section 3(a).

Effective date.

SEC. 7. LIABILITY.

Effective on the date of the conveyance the United States shall not be liable for damages of any kind arising out of any act, omission, or occurrence relating to the conveyed facilities, except for damages caused by acts of negligence committed by the United States or by its employees, agents, or contractors prior to the date of conveyance. Nothing in this section may increase the liability of the United States beyond that currently provided in chapter 171 of title 28, United States Code.

SEC. 8. WATER SUPPLY TO DISTRICT LANDS.

The acreage within the District eligible to receive water from the Minidoka Project and the Teton Basin Projects is increased to reflect the number of acres within the District as of the date of enactment of this Act, including lands annexed into the District prior to enactment of this Act as contemplated by the Teton Basin Project. The increase in acreage does not alter deliveries authorized under the District's existing water storage contracts and as allowed by State water law.

Deadline.

SEC. 9. DROUGHT MANAGEMENT PLANNING.

Within 60 days of enactment of this Act, in collaboration with stakeholders in the Henry's Fork watershed, the Secretary shall initiate a drought management planning process to address all water uses, including irrigation and the wild trout fishery, in the Henry's Fork watershed. Within 18 months of enactment of this Act, the Secretary shall submit a report to Congress, which shall include a final drought management plan.

Reports.

SEC. 10. EFFECT.

(a) **IN GENERAL.**—Except as provided in this Act, nothing in this Act affects—

(1) the rights of any person; or

(2) any right in existence on the date of enactment of this Act of the Shoshone-Bannock Tribes of the Fort Hall Reservation to water based on a treaty, compact, executive order, agreement, the decision in *Winters v. United States*, 207 U.S. 564 (1908) (commonly known as the “Winters Doctrine”), or law.

(b) CONVEYANCES.—Any conveyance under this Act shall not affect or abrogate any provision of any contract executed by the United States or State law regarding any irrigation district’s right to use water developed in the facilities conveyed.

Approved September 30, 2003.

LEGISLATIVE HISTORY—S. 520:

SENATE REPORTS: No. 108–62 (Comm. on Energy and Natural Resources).

CONGRESSIONAL RECORD, Vol. 149 (2003):

June 16, considered and passed Senate.

Sept. 16, considered and passed House.



**Appendix B. Memorandum of Agreement: Reclamation
and Fremont-Madison Irrigation District**

MEMORANDUM OF AGREEMENT
BETWEEN
UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
AND
FREMONT - MADISON IRRIGATION DISTRICT

This Memorandum of Agreement (MOA) is made pursuant to the Reclamation Act of June 17, 1902 (32 Stat.388), and acts amendatory thereof or supplementary thereto, between the UNITED STATES OF AMERICA, acting through the Bureau of Reclamation, Department of the Interior, hereinafter referred to as Reclamation, and the FREMONT-MADISON IRRIGATION DISTRICT, a public corporation organized under the laws of the State of Idaho, with its principal place of business in St. Anthony, Idaho, hereinafter referred to as FMID, and;

WHEREAS, FMID has stated its intent to seek Congressional authority to transfer title of the United States' ownership interests in Cross Cut Diversion Dam and Cross Cut Canal, and the Teton wells including all well permits and water right permits (identified under permit number 22-7022 by the Idaho Department of water Resources), both drilled and undrilled, together with all of the Reclamation's water right interests associated with such well permits, and any other associated facilities and real property pertaining to Cross Cut Diversion Dam and Cross Cut Canal, and the Teton wells held by the United States for the benefit of FMID, and;

WIHEREAS, in addition to the existing Teton wells, FMID has stated its intent to develop such additional wells (using said permit number 22-7022) as may be required to provide a supplemental water supply to the lands of its spaceholders in years when there is an inadequate supply of water, and;

WHEREAS, it is also FMID's intent to give the undeveloped portion of permit number 22-7022, not needed to provide a supplemental water supply to its spaceholders, to the Idaho Water Resources Board for the Water Board's future use, and;

WHEREAS, FMID has also stated its intent to demonstrate its capacity for owning and operating these facilities, and;

WHEREAS, Reclamation has a responsibility to protect the interests of the United States and its public's interests in the resources, which are supported by Reclamation's ownership of the facilities and real property proposed to be transferred, and;

WHEREAS, Reclamation has the ultimate responsibility to approve environmental analyses, prepared by FMID or its contractors, associated with such a transfer and has adopted guidelines designed to assist FMID in implementing a successful transfer, and;

WHEREAS, FMID and Reclamation agree to cooperate in a joint effort to evaluate the environmental impacts, and other elements associated with such a transfer and to prepare associated analyses required for the transfer, and;

WHEREAS, Reclamation has no authorization or funds appropriated for paying costs associated with this title transfer and Reclamation will not be able to reimburse FMID for any of its expenditures without Congressional authorization, and;

WHEREAS, FMID and Reclamation agree to proceed, as applicable, with title transfer under the August 1995 *Framework for the Transfer of Title* process, although FMID does not necessarily agree to the exact sequence of events as set forth in said *Framework*;

NOW THEREFORE, the parties agree as follows:

1. Reclamation will be responsible for the following actions that may be undertaken in cooperation with FMID:

(a) Assist FMID in the planning and completion of required environmental compliance activities to implement the proposed Federal action, including drafting a scoping document. Reclamation will also assist FMID with any planned scoping meetings and will attend the scoping meetings set up by FMID.

(b) Following scoping and in consultation with FMID develop the alternatives for evaluation and analysis in Reclamation's National Environmental Policy Act (NEPA) documents and Endangered Species Act (ESA) compliance actions.

(c) Review the work of FMID and/or any consultants engaged by FMID to assure that the applicable procedural requirements of NEPA, ESA and other applicable State and Federal laws are met as required. Reclamation reserves the right to approve any consultant retained by FMID in connection with the NEPA process.

(d) Review NEPA documentation prepared by FMID to determine the appropriate level of NEPA compliance required for this action. As lead agency for NEPA compliance, final approval of NEPA documentation will be provided when determined to be satisfactory.

(e) Request and pursue consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act.

(f) Identify and/or inventory and consult with Tribes on Indian Trust Assets and

Traditional Cultural Properties and ensure the Secretary's Native American Trust Responsibilities are met.

(g) Conduct an asset valuation to determine the value of the features to be transferred and any revenue streams thereof. Said asset valuation has previously been performed and value determined by Reclamation.

(h) Provide for an independent financial review of the adjusted asset value, if required.

(i) Complete hazardous waste surveys on all Reclamation lands intended for title transfer.

(j) Provide copies, if so requested, of drawings and non-privileged legal documents currently in Reclamation's possession, to FMID that are associated with the lands, third party agreements, Reclamation's water rights, rights-of-way, and facilities to be included in the title transfer.

(k) Perform other technical or administrative tasks associated with the title transfer process.

(l) Review draft Federal authorization language and other transfer documents prepared by FMID.

(m) Provide FMID with projections and/or summaries of expenses incurred in connection with the title transfer process upon the request of FMID. Further, Reclamation will notify FMID when Reclamation's total obligations in connection with the title transfer (including their 50 percent share of the costs associated with NEPA) exceed \$80,000 and provide a summary of obligations, expenditures and estimated cost to complete.

(n) Ensure that all contracts or obligations entered into relating to this MOA be revocable, wherein the contracts or obligations may be terminated at any time upon the request of FMID, and FMID will only be responsible for costs and expenditures incurred to the date of the termination and any contract termination cost.

(o) Provide copies, if so requested, to FMID of all contracts, documents, invoices and other writings which evidence obligations pursuant to this MOA.

2. The FMID will be responsible, subject to Reclamation's review and approval as appropriate, for the following:

(a) Ensure completion of all activities required to comply with NEPA, ESA and other applicable State and Federal laws as required, including the draft biological assessment.

(b) Arrange all public involvement, as deemed necessary and appropriate by both parties, including meeting places, mailings to all key participants, and notices to the public as required by Federal regulations.

(c) Complete any required cultural resource surveys, prepare a draft cultural resource report, assist in developing any cultural resource agreement with the State, and submit these documents to Reclamation for review and approval.

(d) Draft Federal authorization language for the proposed title transfer of facilities as determined appropriate by and through this transfer process.

(e) Any land surveys needed for the transfer of the project or related facilities shall be at the expense of FMID.

(f) Prepare drafts of the necessary legal documents including any associated agreements involving Federal, State, local and Tribal issues. FMID is responsible for officially contacting all interested local, State, Tribal and Federal agencies to determine if they have concerns or jurisdictional obligations which need to be met. FMID will provide Reclamation a report of these contacts and the agency responses.

3. Areas of mutual responsibility:

(a) Reclamation and FMID will appoint representatives to coordinate the transfer analysis and documentation process. All FMID requests to Reclamation relating to the transfer will go through Stuart Stanger, Deputy Area Manager, Reclamation, Burley, ID. All Reclamation requests to FMID relating to the transfer will go through Dale Swensen, Manager, FMID, St. Anthony, ID.

(b) Reclamation and FMID will cooperate to conduct the process in a manner that ensures appropriate public and spaceholder participation.

(c) Reclamation and FMID agree to use, if appropriate, a quit claim deed to transfer title of facilities, water right interests held by the United States' Secretary of the Interior for Reclamation purposes, real property, and other interests from Reclamation to FMID, if title is transferred.

(d) Reclamation and FMID agree to work cooperatively to determine final value of the features to be transferred based upon previous Reclamation asset valuation and any revenue streams thereof.

(e) Reclamation and FMID agree that any of the responsibilities for either party may become the responsibility of the other party if agreed to by both parties in writing, unless prohibited by law or regulation.

4. Costs

(a) Subject to the terms of this MOA, FMID agrees to cost share up to 50 percent of all transfer costs associated with applicable procedural requirements of the NEPA, ESA, other Federal cultural resource laws, and other applicable State and Federal laws as required. FMID agrees that it shall be responsible for paying, in advance, all costs incurred by it and/or Reclamation associated with the tasks described herein for title transfer, except for those costs for which Reclamation agrees to by subsequent written agreement with the FMID. Any subsequent agreement will be documented as an amendment to this agreement. FMID intends to seek a cap of its share of the administrative costs in the legislation.

(b) Reclamation may contract with another person or entity for any of the obligations described herein. Reclamation will ensure that the costs billed to FMID shall be actual costs, including Reclamation's actual costs for administering the contracts, if Reclamation contracts with another person or entity for any of the obligations herein.

(c) FMID will pay in advance for Reclamation's reasonable costs for coordination, review, public meetings, oversight, and other reasonable costs related to the title transfer process.

(d) FMID will pay in advance Reclamation's reasonable costs associated with cultural resource compliance actions, NEPA compliance, inspection of facilities, hazardous waste surveys, assistance by Reclamation in all documents related to real property transfer, and other reasonable Reclamation costs as described herein.

(e) Reclamation and FMID agree that payment in advance for Reclamation costs or completion of any or all aspects of this agreement does not guarantee that title will be transferred for any or all of the facilities named in this agreement or that transfer of title will be approved by Reclamation and/or the Congress of the United States. Notwithstanding the above Reclamation will do everything it can to facilitate a transfer.

(f) Those costs for which the FMID will be fully responsible for in the proposed title transfer will include, but not limited to, the following (for each of which FMID intends to seek the right of reimbursement through the legislative process):

(i) Inspection of facilities designated herein to be transferred, if required, and review of property and lands, asset valuation, identification of Indian Trust Assets, hazardous material surveys, and other activities that are associated with or possibly impacted by the proposed transfer of Federal Reclamation facilities and associated lands.

(ii) Reclamation's salary and overhead costs accrued for activities associated with this MOA.

(iii) Travel by Reclamation staff, including per diem and transportation costs, as

required for the above actions or activities and/or the development and negotiation of the terms for the proposed title transfer.

(iv) Photocopying and mailing by Reclamation of documents related to the proposed title transfer (e.g., the proposed draft agreement for public review, comment, and public notification).

(v) Title transfer recording costs.

(g) Reclamation agrees to allocate authorized and appropriated funds as may become available for the performance of certain tasks which are described herein:

(j) Reclamation and FMID agree to work in a prudent manner to minimize costs for activities associated with this agreement.

5. Payment

(a) Reclamation will establish a unique cost account to track and account for the cost and services provided under the terms of this MOA.

(b) FMID submitted an advance payment to Reclamation in the amount of \$25,000 on November 20, 1998 (March 31, 2001 credit balance of \$21,148.60) which will be held by Reclamation in account number A1R1751 and will be applied toward Reclamation's costs, upon FMID's signature of this MOA (Contributed Funds Act 42USC345). Payment has been made payable to Bureau of Reclamation, to the attention of Reclamation Grants Management Specialist, PN-6317, Bureau of Reclamation, 1150 North Curtis Road, Suite 100, Boise, Idaho 83706.

(c) FMID will maintain a balance of at least \$5,000 in this account to be used to reimburse Reclamation's costs; and

(d) Reclamation will contact FMID prior to the first of each month to discuss (consult) and itemize anticipated Reclamation actions and expenses for the upcoming month, and upon Reclamation's submittal of the itemized anticipated actions and costs to FMID, FMID shall promptly pay Reclamation for the anticipated reimbursable costs.

(e) Following completion of title transfer or cessation (for whatever reason) of the title transfer process, Reclamation will refund within 60 days to FMID any unexpended advanced funds identifiable as excess of the total estimated costs.

6. General Provisions:

(a) All responsibilities of either or both parties required above shall be performed only after mutual agreement and reasonable notification to the other party.

(b) FMID and Reclamation will work in a cooperative manner throughout the legislative process.

(c) The parties pledge their individual good faith to seek a prompt and fair agreement on all issues relating to a proposed transfer described in this Agreement. FMID agrees that in order to facilitate a facility transfer, FMID must address all substantive issues in the context of Congressional hearings. In the event that an agreement on a particular matter cannot be promptly resolved, the parties pledge to continue to work cooperatively on those matters relating to a title transfer for which there is no disagreement.

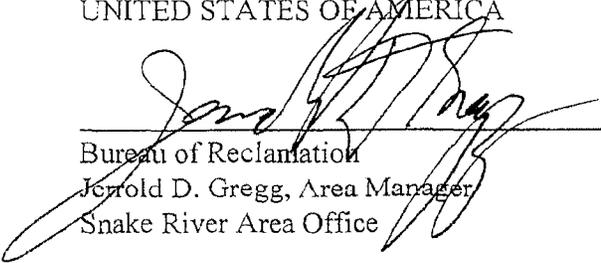
(d) This MOA shall become effective on the date of the last signature hereto. This MOA may be modified, amended or terminated upon mutual agreement of the parties hereto, but in any event will terminate two (2) years from the date of the MOA is signed unless renegotiated and or renewed at that time through mutual consent of both parties. Either party may terminate its obligations and duties under this MOA at any time upon 30 days written notice to the other party. All duties and obligations of both parties under this MOA will cease at that time except as the MOA provisions relate to accounting, termination of contracts and reimbursing the parties' expenses.

(e) Nothing herein shall be construed to obligate the Bureau of Reclamation to expend or involve the United States of America in any contract or other obligation for the future payment of money in excess of appropriations authorized by law and administratively allocated for the purposes and projects contemplated hereunder.

(f) No Member or delegate to Congress, or resident Commissioner, shall be admitted to any share or to be part of this MOA or to receive any benefit that may arise out of it other than as a water user or landowner in the same manner as other water user or landowner.

IN WITNESS WHEREOF, the parties hereto have executed this MOA as of the last date and signature below.

UNITED STATES OF AMERICA


Bureau of Reclamation
Jerrold D. Gregg, Area Manager
Snake River Area Office

9/13/2001
Date

STATE OF IDAHO)

: ss

County of Ada)

On this 13th day of SEPTEMBER, 2001, personally appeared before me JERROLD D. GREGG, to me known to be the official of the UNITED STATES OF AMERICA that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said United States, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal as of the day and year first above written.

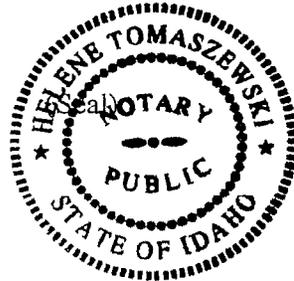
Helene Tomaszewski

Notary Public in and for the

State of Idaho

Residing at: MERIDIAN

My commission expires: 01-16-2002



COPY

Amendment No. 1 to
Memorandum of Agreement No. 1425-01-MA-10-3310

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Upper Snake River Storage Division, Minidoka Project – Lower Teton Division Teton Basin Project, Idaho

AMENDATORY AGREEMENT BETWEEN THE UNITED STATES AND THE
FREMONT-MADISON IRRIGATION DISTRICT FOR THE TRANSFER OF TITLE OF
CERTAIN FACILITIES TO FREMONT- MADISON IRRIGATION DISTRICT

THIS AGREEMENT, made this 14 day of May, 2003, pursuant to the Act of
June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, between the
UNITED STATES OF AMERICA, hereinafter referred to as the United States, represented by the
Contracting Officer executing this agreement, and the FREMONT-MADISON IRRIGATION
DISTRICT, an irrigation district duly organized and existing under and by virtue of the laws of the
State of Idaho, hereinafter referred to as the District,

WITNESSETH, THAT:

2. WHEREAS, the District and the United States have heretofore entered into Memorandum
of Agreement No. 1425-01-MA-10-3310, dated September 13, 2001 (hereinafter referred to as the
2001 Agreement), which provided for specific requirements and responsibilities to complete the
necessary actions to transfer title to the Cross Cut Diversion Dam, Cross Cut Canal (Upper Snake
River Storage Division, Minidoka Project) and the Teton Exchange Wells (Lower Teton Division
Teton Basin Project, Idaho) to the District; and

3. WHEREAS, the 2001 Agreement is due to expire on September 13, 2003, and the District
has requested a 1-year extension of the 2001 Agreement by the United States in recognition of

ongoing efforts by the District to seek Congressional authority to transfer title of the United States' ownership interests for the aforementioned facilities; and

4. WHEREAS, the United States, in recognition of the District's ongoing transfer of title efforts is willing to extend the 2001 Agreement for a period of one year;

NOW, THEREFORE, in consideration of the mutual and dependent stipulations and covenants herein contained, it is mutually agreed by and between the parties hereto as follows:

Former Agreement to Remain in Effect

5. Except as herein specifically amended, all provisions of the 2001 Agreement shall remain in full force and effect.

Term of Agreement

6. This agreement shall be in force for a term of 1 year commencing as of September 13, 2003, and ending September 13, 2004.

Notices

7. Any notice, demand, or request authorized or required by this agreement shall be deemed to have been given, on behalf of the Contractor, when mailed, postage prepaid, or delivered to the Area Manager, Snake River Area Office, Bureau of Reclamation, 214 Broadway Avenue, Boise, ID 83702-7298, and on behalf of the United States, when mailed, postage prepaid, or delivered to the President, Board of Directors of the Fremont-Madison Irrigation District, PO Box 15, St. Anthony, Idaho 83445. The designation of the addressee or the address may be changed by notice given in the same manner as provided in this article for other notices.

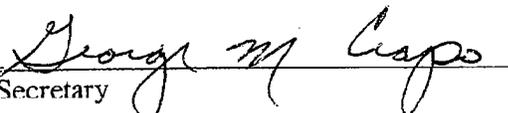
IN WITNESS WHEREOF, the parties hereto have signed their names as of the day and year first above written.

FREMONT-MADISON IRRIGATION DISTRICT

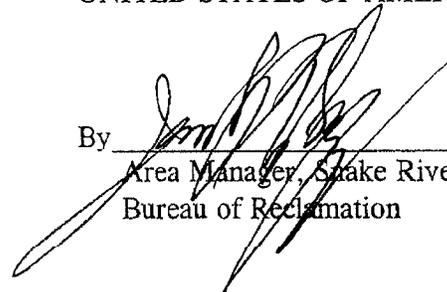
By 
President, Board of Directors

(SEAL)

ATTEST:


Secretary

UNITED STATES OF AMERICA

By 
Area Manager, Snake River Area Office,
Bureau of Reclamation

STATE OF IDAHO)
 : ss
County of Fremont)

On this 8 day of May, 2003, before me, a Notary Public,
personally appeared Jeff Raybould and George Crapo,

known to me to be, respectively, the President and Secretary of the FREMONT-MADISON IRRIGATION DISTRICT, and the persons who executed the within and foregoing instrument and acknowledged to me that they executed the foregoing instrument in the capacity therein stated and for the purposes therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal as of the day and year first above written.



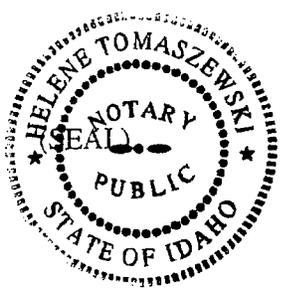
Ladonna Henman
Notary Public in and for the
State of Idaho
Residing at: Reedy
My commission expires: 6-1-05

STATE OF IDAHO)
 : ss
County of Ada)

On this 14th day of MAY, 2003, personally appeared before

me JERROLD D. GREGG, to me known to be the official of the UNITED STATES OF AMERICA that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said United States, for the uses and purposes therein mentioned, and on oath stated that (mark one) he she was authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal as of the day and year first above written.



Helene Tomaszewski
Notary Public in and for the
State of Idaho
Residing at: MERIDIAN
My commission expires: 01-16-2008

**Appendix C. Memorandum of Agreement: Fremont-
Madison Irrigation District and Twin Falls Canal Company
and North Side Canal Company**

AGREEMENT

This agreement, made this 15th day of March, 2002, between the Fremont-Madison Irrigation District, an irrigation district duly organized and existing under and by virtue of the laws of the State of Idaho, hereinafter referred to as the "District;" and Twin Falls Canal Company and North Side Canal Company, Ltd., irrigation corporations in good standing under the laws of the State of Idaho, hereinafter referred to as "TFCC" and "NSCC" respectively;

W I T N E S S E T H

WHEREAS the District seeks Title Transfer from the United States of certain facilities used by the District in the operation of the District's project including wells developed pursuant to Idaho Water Permit No. 22-07022 which wells are the subject of an agreement with the U.S. Bureau of Reclamation (USBR) dated September 16, 1977; and

WHEREAS the District also seeks the transfer of any developmental rights still existing under Water Right No. 22-07022 for the purpose of developing an adequate supply of supplemental water to satisfy the District's irrigation needs in short water years, to an annual total diversion of 80,000 a/f/a, up from the 35,000 a/f/a which is the maximum diverted by the District in any one year under the September 16, 1977, agreement; and

WHEREAS TFCC and NSCC have concerns about the future development by the District and potential injury to their water rights and water supplies; and

WHEREAS the parties wish to delineate their agreement in writing;

NOW, THEREFORE, in consideration of the mutual covenants and stipulations herein contained, the parties agree as follows:

1. District's Covenant and Agreement With TFCC and NSCC

District covenants with TFCC and NSCC not to develop and divert more than a total of 80,000 a/f/a of water for irrigation purposes from developed wells and those developed in the future under Permit No. 22-07022. Any additional water developed beyond the present 35,000 af shall be applied only to acres irrigated by the District as of the date of this agreement, and only as a supply to supplement traditional supplies of natural flow and storage.

473562
Microfilm No. _____
At 12 Day Mar 2002
At 12:00 O'clock P
AGREEMANCE
FREMONT CO. RECORDER
Fee \$ 15
In presence of Request of
Fremont Madison
Px Box 15 P.A. & P.

2. Mitigation Plan

The development of wells additional to the existing five (5) wells under Permit No. 22-07022 shall not occur until the District has developed a plan [for wells other than the presently existing five (5) wells] which mitigates for injury of TFCC, NSCC, and other irrigation water users and which is approved by the Idaho Department of Water Resources.

3. Development of Permit No. 22-07022 to Above 80,000 a/f/a

There shall be no development of any water above the 80,000 a/f/a under Permit No. 22-07022 contemplated by this agreement without the express written consent of the parties, and then only if the purpose is to benefit the parties to this agreement.

4. Support

TFCC and NSCC agree to support the Resolution attached hereto as Exhibit A at the annual meeting of the Idaho Waterusers Association and a Congressional bill on the transfer of Water Permit No. 22-07022 consistent with this agreement.

5. Extension

TFCC and NSCC agree not to oppose an extension of time request to IDWR by the District to give the District an opportunity to make beneficial use of the water.

6. Binding

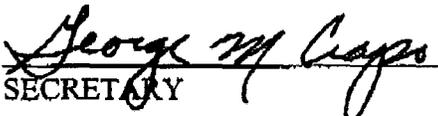
The provisions of this agreement shall apply to and bind the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties have executed this agreement effective the day and year first above written.

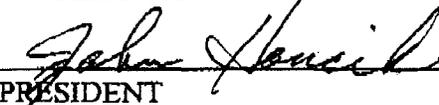
FREMONT-MADISON IRRIGATION DISTRICT

By: 
PRESIDENT

Attest:


SECRETARY

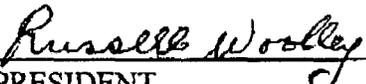
TWIN FALLS CANAL COMPANY

By: 
PRESIDENT

Attest:


SECRETARY

NORTH SIDE CANAL COMPANY, LIMITED

By: 
PRESIDENT

Attest:

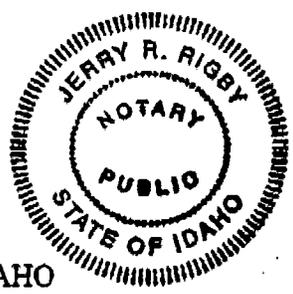

SECRETARY

STATE OF IDAHO)

County of FREMONT)

On this 7th day of March, 2002, before me, a Notary Public for the State of Idaho, personally appeared ~~EXECUTIVE DIRECTOR OF FREMONT-MADISON IRRIGATION DISTRICT~~ Secretary, known or identified to me, to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.



[Signature]
NOTARY PUBLIC FOR IDAHO
Residing at REXBURG
My Commission Exp. 11-09-05

STATE OF IDAHO)

County of Twin Falls)

On this 12th day of March, 2002, before me, a Notary Public for the State of Idaho, personally appeared ~~PRESIDENT OF TWIN FALLS CANAL COMPANY~~ AND Secretary, known or identified to me, to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.



John A. Rosholt
NOTARY PUBLIC FOR IDAHO
Residing at Twin Falls
My Commission Exp. 2006

STATE OF IDAHO)

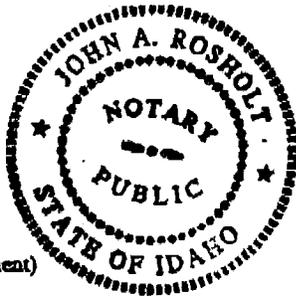
County of Jerome)

On this 15th day of MARCH, 2002, before me, a Notary Public for the State of Idaho, personally appeared PRESIDENT AND SECRETARY OF NORTH SIDE CANAL COMPANY, LTD., known or identified to me, to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

John A. Rosholt

NOTARY PUBLIC FOR IDAHO
Residing at Twin Falls
My Commission Exp. 2006



(fnid/agreement)

Appendix D. Hazardous Materials and Waste Survey

Low-Intensity Rural, Residential, Crop/Agricultural, etc. Real Property Questionnaire Checklist Phase I

INSTRUCTIONS: Circle for each question. Explain briefly on back if a "yes" or "unknown" are circled. Indicate whether a phase II assessment will be recommended. Attach a legal description of the real estate property covered by this survey.

A. Background Information.

Region Pacific Northwest Region

Project Minidoka

Property ID 124 acres - See attached legal descriptions County Fremont State Idaho

Owner(s) U.S. - Bureau of Reclamation owns acquired lands, easements and rights-of-way

Date of survey September 15 & 16, 2003

Question	Owner/and or Occupant			Observed during visual inspection		
1. Currently or in the past has the <i>property</i> or any <i>adjoining property</i> being or been used for an industrial use such as: gasoline station, motor repair facility, junkyard or landfill, or recycling facility?	Yes	No	Unk	Yes	No	Unk
2. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded vehicle batteries, or pesticides, paints, or other chemicals (disregard petroleum products) in individual containers of greater than 25 gal in volume or 100 gal in the aggregate, stored on or used on the <i>property</i> or at the facility?	Yes	No	Unk	Yes	No	Unk
3. Are there currently, or to the best of your knowledge have there been previously, any <i>drums</i> (typically 55 gal or sacks of chemicals materials stored on the property or at the facility)?	Yes	No	Unk	Yes	No	Unk
4. Has <i>fill material</i> been brought onto the property that originated from a hazardous material contaminated site?	Yes	No	Unk	Yes	No	Unk
5. Are there currently, or to the best of your knowledge have there been previously, any <i>pits, ponds, or lagoons</i> located on the <i>property</i> associated with waste treatment or waste disposal?	Yes	No	Unk	Yes	No	Unk
6. Is there currently, or to the best of your knowledge has there been previously, any significantly stained soils on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk
7. Are there currently, or to the best of your knowledge have there been previously, any leaking storage tanks (above or underground) located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk
8. If the <i>property</i> is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system?	Yes	No	Unk	Yes	No	Unk
9. To the best of your knowledge, have any <i>hazardous substances</i> or <i>petroleum products</i> , unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the <i>property</i> ?	Yes	No	Unk			
10. To the best of your knowledge, has any part of the area been used as a spray operation base: air strip, equipment parking area?	Yes	No	Unk			
11. Is there currently, or to the best of your knowledge has there been structures containing asbestos located on the property and/or has any asbestos been buried on the property?	Yes	No	Unk	Yes	No	Unk
12. Is there evidence of chemical contamination e.g., vegetation different from surrounding for no apparent reason, bare ground, sterile water bodies etc?	Yes	No	Unk	Yes	No	Unk
13. Is there a transformer, capacitor, or any hydraulic equipment for which there is documentation indicating the presence of PCBs?	Yes	No	Unk	Yes	No	Unk

Unk = "unknown" or "no response."

Public Records/Historical Sources Inquiry

- 14. Do any of the following Federal government record systems list the property or any property within the circumference of the area noted below:
 - National Priorities List--within 1.0 mile (1.6 Km)? Yes No
 - CERCLIS List--within 1.5 mile (0.8 Km)? Yes No
 - RCRA TSD Facilities--within 1.0 mile (1.6 Km)? Yes No
- 15. Do any of the following state record systems list the property or any property within the circumference of the area noted below:
 - List maintained by state environmental agency of hazardous waste sites identified for investigation or remediation that is the state agency equivalent to NPL--within approximately 1.0 mile (1.6 Km)? Yes No
 - List maintained by state environmental agency of sites identified for investigation or remediation that is the state equivalent to CERCLIS--within 0.5 mile (0.8 Km)? Yes No
 - Leaking Underground Storage Tank (LUST) List--within 0.5 mile (0.8 Km)? Yes No
 - Solid Waste/Landfill Facilities--within 0.5 mile (0.8 Km)? Yes No

Certification (CHECK ONE).

- I hereby certify that to the best of my knowledge no contaminants are present on this real estate, and there are no obvious signs of any effects of contamination.
- On the basis of the information collected to complete this form, it is possible to reasonably conclude that there is a potential for contaminants, or the effects of contaminants, to be present on that real estate. Phase II assessment will be performed.

Examiner

Examiner represents that to the best of his/or her's knowledge the above statements and facts are true and correct.

Signed Yvonne Daniel Print Name Yvonne Daniel
 Date 9-18-03 Title Realty Specialist

Approving Official

I concur with the above certification
 Signed Don H. Bowden Print Name Don H. Bowden
 Date 9/18/03 Title Environmental Protection Specialist

Additional information

- Question #__ Comment:
- Question #__ Comment:
- Question #__ Comment:

Unk = "unknown" or "no response."

The Cross Cut Diversion Dam and headworks are located 1½ miles northwest of Chester, Idaho. The Cross Cut Canal extends southwest from the diversion dam 6.6 miles to the Teton River. These lands and easements lie along both sides of the canal, approximately 100-150' in width, and total approximately 114 acres.

Location of the Cross Cut Diversion Dam and headworks:

Township 8 North, Range 41 East, Boise Meridian, Idaho
Section 14: Portion of the SE¼

Location of the Cross Cut Canal:

Township 8 North, Range 41 East, Boise Meridian, Idaho
Section 14: Portion of the SE¼
Section 23: Portion of the NE¼ and the W½
Section 26: Portion of the W½
Section 27: Portion of the SE¼
Section 34: Portion of the N½ and the SW¼

Township 7 North, Range 41 East, Boise Meridian, Idaho
Section 3: Portion of the W½
Section 9: Portion of the E½
Section 10: Portion of the NW¼NW¼
Section 15: Portion of the W½
Section 16: Portion of the NE¼

Location of the Teton Wells:

The five Teton wells are located to the north, northwest and west of Rexburg, ranging from two to seven miles from Rexburg. The acquired lands, easements and rights-of-way total 10.36 acres.

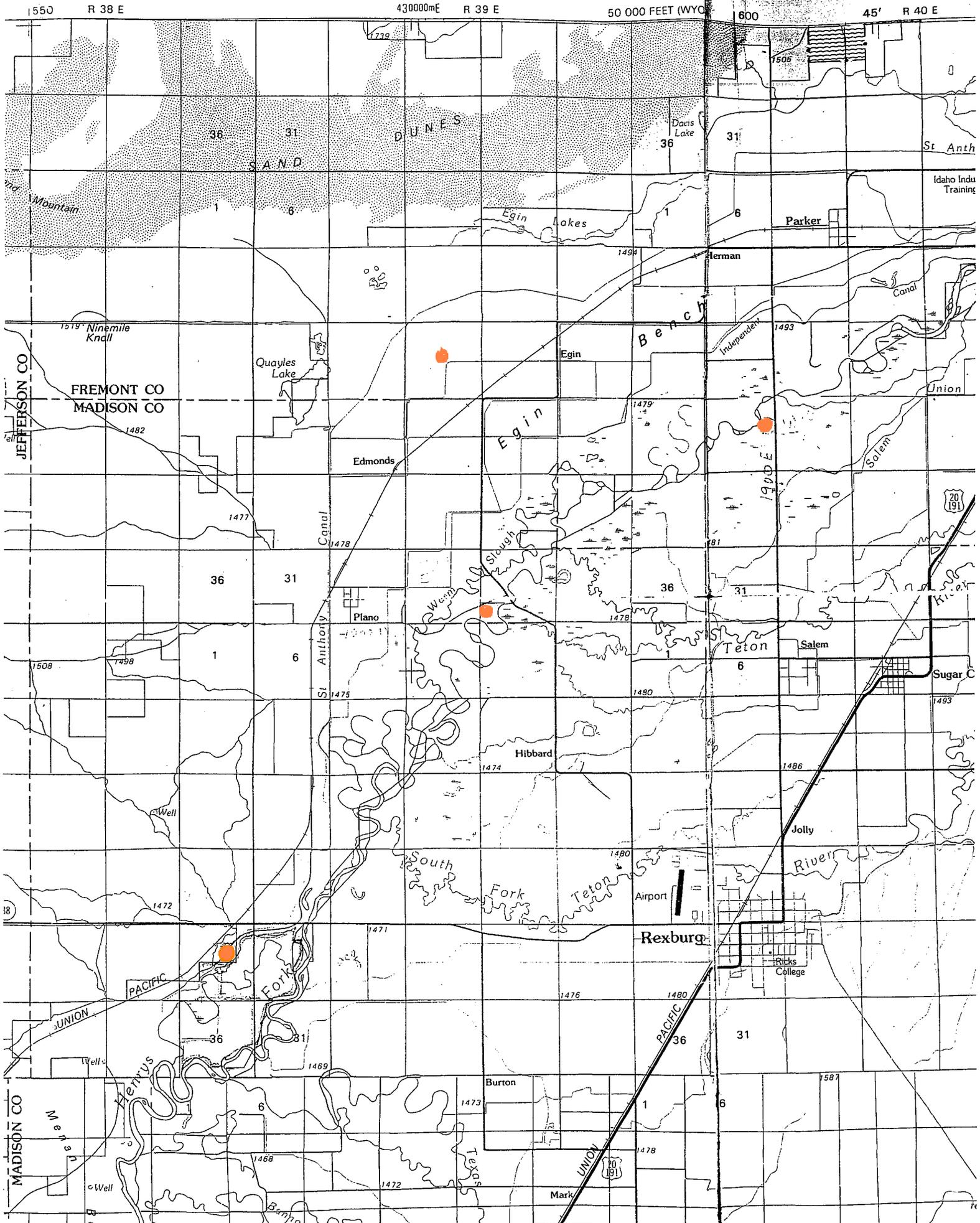
Township 6 North, Range 38 East, Boise Meridian, Idaho
Section 25: Portion of SW¼NE¼

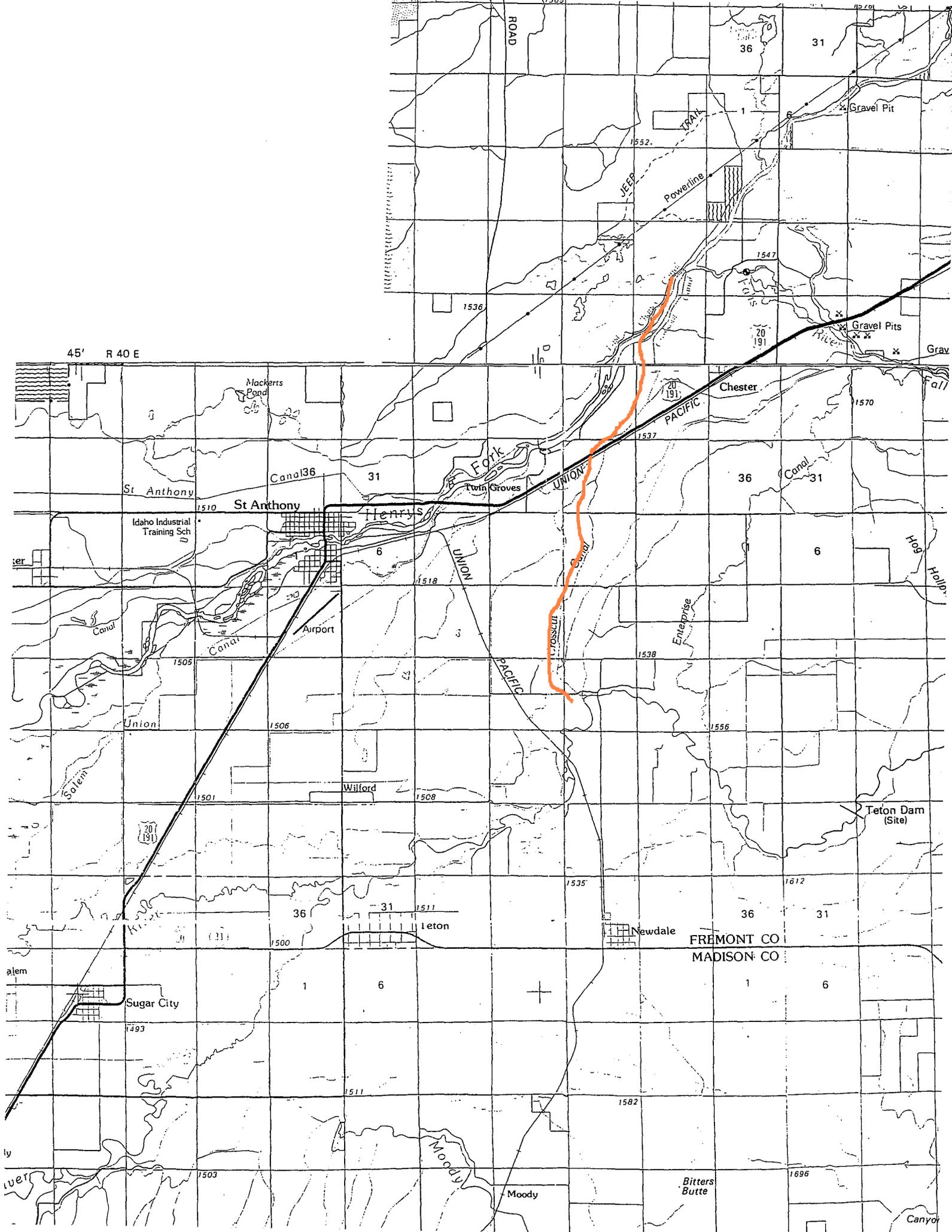
Township 6 North, Range 39 East, Boise Meridian, Idaho
Section 23: Portion of NE¼NE¼

Township 7 North, Range 39 East, Boise Meridian, Idaho
Portion of Section 16
Section 34: Portion of SW¼SW¼

Township 7 North, Range 40 East, Boise Meridian, Idaho
Section 19: Portion of SE¼NE¼

U OF LAND MANAGEMENT





45' R 40 E

FREMONT CO
MADISON CO



<p>Map Features</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Water dischargers</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Superfund</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Hazardous waste</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Toxic releases</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Air emissions</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> BRS</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Multi-activities</p> <p><input type="checkbox"/> <input type="checkbox"/> Schools</p> <p><input type="checkbox"/> <input type="checkbox"/> Hospitals</p> <p><input type="checkbox"/> <input type="checkbox"/> Churches</p> <p><input type="checkbox"/> <input type="checkbox"/> Populated Places</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Streets</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Streams</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Water Bodies</p> <p><input type="checkbox"/> <input type="checkbox"/> Zipcodes</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Counties</p>		<p>Zoom-In By: <input checked="" type="checkbox"/> Locator Map</p> <p>2X <input type="checkbox"/> Zoom Reset</p> <p>Radius <input type="checkbox"/></p> <p>Zoom-Out By: 2X <input type="checkbox"/></p> <p>Recenter Map <input type="checkbox"/> Click on compass to pan map</p> <p>Identify <input type="checkbox"/> Printable Map</p> <p>Show Location <input type="checkbox"/> For best output click here</p>
<p>Redraw Map</p>	<p>12.3 mi across. Tips: Click on the map or choose another option.</p>	<p>On-Line Help</p>

You can also zoom in by geography.

<p>Map Features</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Water dischargers</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Superfund</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Hazardous waste</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Toxic releases</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Air emissions</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> BRS</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Multi-activities</p> <p><input type="checkbox"/> <input type="checkbox"/> Schools</p> <p><input type="checkbox"/> <input type="checkbox"/> Hospitals</p> <p><input type="checkbox"/> <input type="checkbox"/> Churches</p> <p><input type="checkbox"/> <input type="checkbox"/> Populated Places</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Streets</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Streams</p> <p><input type="checkbox"/> <input type="checkbox"/> Water Bodies</p> <p><input type="checkbox"/> <input type="checkbox"/> Zipcodes</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Counties</p>	<p>St. Anthony Yellowwater Chester US AIRWAY EPA's EnviroMapper</p>	<p>Montana Wyoming Idaho</p> <p>Zoom-In By: <input checked="" type="checkbox"/> Locator Map 2X <input type="checkbox"/> Zoom Reset</p> <p>Radius <input type="checkbox"/></p> <p>Zoom-Out By: 2X <input type="checkbox"/></p> <p>Recenter Map <input type="checkbox"/> Click on compass to pan map</p> <p>Identify <input type="checkbox"/> Printable Map For best output click here</p> <p>Show Location <input type="checkbox"/></p>
<p>Redraw Map</p>	<p>12.3 mi across. Tips: Click on the map or choose another option.</p>	<p>On-Line Help</p>

You can also [zoom in by geography](#).

EPA United States Environmental Protection Agency

EnviroMapper

EM Home Envirofacts Feedback [Report Error](#)

Map Features

- Water dischargers
- Superfund
- Hazardous waste
- Toxic releases
- Air emissions
- BRS
- Multi-activities
- Schools
- Hospitals
- Churches
- Populated Places
- Streets
- Streams
- Water Bodies
- Zipcodes
- Counties

Zoom-In By: **Locator Map**

Zoom-Out By:

Recenter Map

Identify

Show Location

7.2 mi across. Tips: Click on the map or choose another option.

You can also zoom in by geography.

- canal

EPA United States Environmental Protection Agency

EnviroMapper EM Home Envirofacts Feedback Report Error

Map Features

- Water dischargers
- Superfund
- Hazardous waste
- Toxic releases
- Air emissions
- BRS
- Multi-activities
- Schools
- Hospitals
- Churches
- Populated Places
- Streets
- Streams
- Water Bodies
- Zipcodes
- Counties

Zoom-In By: Locator Map
 2X
 Radius

Zoom-Out By:
 2X

Recenter Map

Identify

Show Location

14.5 mi across. *Tips:* Click on the map or choose another option.

You can also zoom in by geography.

• wells

**Appendix E. Transfer of Title of United States Ownership
Interests in Cross Cut Diversion Dam and Canal, and the
Teton Wells, to the Fremont-Madison Irrigation District;
May 5, 2003, letter to Ms. Suzi Neitzel, Deputy State
Historical Preservation Officer.**



United States Department of the Interior

BUREAU OF RECLAMATION

Snake River Area Office
214 Broadway Avenue
Boise, Idaho 83702-7298

IN REPLY REFER TO:

SRA-6116
LND-1.10

MAY - 5 2003

Ms. Suzi Neitzel
Deputy State Historic Preservation Officer
Idaho Historical Society
210 Main Street
Boise, ID 83702

LND-500
MAY

BUREAU OF RECLAMATION		
OFFICIAL FILE COPY		
MAY 15 03		
TO	INIT	DATE
3248		
CONTROL #: 3-2676		
FOLDER #: 7715-2		

Subject: Transfer of Title of United States Ownership Interests in Cross Cut Diversion Dam and Canal, and the Teton Wells, to the Fremont-Madison Irrigation District

Dear Ms. Neitzel:

The Bureau of Reclamation has been completing analysis associated with transferring to the Fremont-Madison Irrigation District (FMID) our fee title and easement interests in Cross Cut Diversion Dam, Cross Cut Canal, and the Teton wells, along with any other associated facilities and real property. The area of the title transfer is situated between the towns of Rexburg and St. Anthony, in eastern Idaho. Ray Leicht of my staff met with you and Mr. Don Watts in July 2002, and again in March 2003, to discuss the proposed title transfer.

In the fall of 2002, Sagebrush Consultants, Ogden, Utah, performed a Class III cultural resources survey in the area of the proposed title transfer. A total of 53 historic cultural resource sites and seven isolated artifacts were identified and recorded during the survey, and would be affected by the title transfer. With a single exception (a trash scatter), all sites are directly or indirectly associated with the construction or operation of Cross Cut Dam or Canal. On the basis of their meeting National Register Criteria A, Criteria C, or both A and C, twenty three of the sites are recommended by Sagebrush as eligible for the National Register of Historic Places. Reclamation supports these National Register eligibility recommendations. The Teton wells were constructed in the 1970's and are not considered eligible for the National Register.

At our March meeting, you were provided with a draft copy of the Sagebrush Consultants survey report and associated site records for the FMID title transfer. Comments from your office as well as Reclamation's comments on these materials have been addressed in Sagebrush's final report and site forms. Two copies of the final survey report along with associated site forms (on CD) are included as enclosures to this letter.

Under the 36 CFR Part 800 regulations, transfer of title of ownership interests in Crosscut Dam and Crosscut Canal to the FMID is an adverse effect to the integrity of the identified historic

properties. Reclamation and the SHPO agree that mitigation of the adverse effect of the proposed title transfer can be accomplished by means of photo-documentation of the historic properties that are included in the transfer. It is the SHPO and Reclamation's position that because of the very high quality of the historical narrative and photos in Sagebrush Consultants Class III report, that report can serve as adequate mitigation for the proposed title transfer. Accordingly, the SHPO has requested 4 X 6 inch, black and white, 35mm prints of each photograph that accompanied the site records for this project, housed in an archival sleeve. One set of the bound photographs is enclosed with this letter.

In conjunction with the 35 mm prints being submitted with this letter, we are enclosing a copy of a memorandum of agreement (MOA), required under 36 CFR 800.6 for resolving adverse effects. The MOA states Reclamation's commitment to the mitigation as agreed to by our respective offices. If you find the document to be satisfactory, please sign it and return a copy to Reclamation. You may direct any questions about the agreement to Ray Leicht at 208-334-9438.

Sincerely,

JERROLD D. GREGG

Jerrold D. Gregg
Area Manager

Enclosures

bc: PN-3248 (Green)
SRA-6300 (Ketchum), SRA-6324 (Bauman), SRA-2000 (McClendon), SRA-6310 (Daniel)
SRA-6116 (Leicht)
(w/o encls to each above)

WBR:RLeicht:earellano:5/2/03:208-334-9438:SRA-6116
N:\common\SRA1001\workfiles\Ray\fmid.shpo.ltr.wpd

**Appendix F. Memorandum of Agreement with the Idaho
State Historic Preservation Officer**



Our mission: to educate through the identification, preservation, and interpretation of Idaho's cultural heritage.

Dirk Kempthorne
Governor of Idaho

Steve Guerber
Director

Administration
1109 Main Street, Suite 250
Boise, Idaho 83702-5642
Office: (208) 334-2682
Fax: (208) 334-2774

Archaeological Survey
210 Main Street
Boise, Idaho 83702-7264
Office: (208) 334-3847
Fax: (208) 334-2775

Capitol Education Center
Statehouse/P.O. Box 83720
Boise, ID 83720 0001
Office: (208) 334-5174

Historical Museum and
Education Programs
610 North Julia Davis Drive
Boise, Idaho 83702-7695
Office: (208) 334-2120
Fax: (208) 334-4059

Historic Preservation Office
210 Main Street
Boise, Idaho 83702-7264
Office: (208) 334-3861
Fax: (208) 334-2775

Historic Sites Office
2445 Old Penitentiary Road
Boise, Idaho 83712-8254
Office: (208) 334-2844
Fax: (208) 334-3225

Historical Collections and
Genealogical Collections
450 North Fourth Street
Boise, Idaho 83702-6027
Office: (208) 334-3356/7
Fax: (208) 334-3198

Oral History
450 North Fourth Street
Boise, Idaho 83702-6027
Office: (208) 334-3863
Fax: (208) 334-3198

Memberships and
Outreach and Development
1109 Main Street, Suite 250
Boise, Idaho 83702-5642
Office: (208) 334-3986
Fax: (208) 334-2774

Publications
450 North Fourth Street
Boise, Idaho 83702-6027
Office: (208) 334-3128
Fax: (208) 334-3198

State Archives/Manuscripts
2795 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 334-2620
Fax: (208) 334-2626

June 25, 2003

BUREAU OF RECLAMATION
SNAKE RIVER AREA OFFICE
BOISE, IDAHO
RECEIVED

JUN 27 03

TO:	MR. GREGG	DATE:	6/25/03
FROM:	MR. GREGG	DATE:	6/25/03
SUBJECT:		DATE:	6/25/03
FILED:		DATE:	6/25/03

Mr. Jerrold D. Gregg
Area Manager
Bureau of Reclamation
Snake River Area Office
214 Broadway Ave.
Boise, Idaho 83702-7298

RE: Section 106 Review of the Transfer of Title of United States Ownership Interests in Cross Cut Diversion Dam and Canal and the Teton Wells to the Fremont-Madison Irrigation District

Dear Mr. Gregg:

Thank you for consulting with us on the title transfer of the Cross Cut Diversion Dam and Canal and the Teton Wells from the United States (Bureau of Reclamation) to the Fremont-Madison Irrigation District. We also appreciate receiving the historical report by Sagebrush Consultants, LLC, Ogden, Utah. The report easily meets the Secretary of the Interior's Standards and provides an excellent historical overview of the general area and of the Cross Cut project.

After reviewing the report, we agree with the National Register evaluations presented in Table 3 on page 55. The table shows that 23 sites associated with the canal are *eligible* for the National Register of Historic Places under Criteria A and C. It also shows that 29 sites associated with the canal and a historic trash scatter (TS-1) are *not eligible* for the National Register.

Following 36CFR800.5, transferring the eligible properties to a non-federal entity is an *adverse effect*. Rather than imposing protective covenants, Bureau of Reclamation has opted to mitigate the effects by fully documenting the irrigation system.

As we discussed in consultation, the historical report, the site records, and 35mm black and white prints, all completed by Sagebrush and submitted to our office, meet the documentation requirements for mitigation as outlined in the Memorandum of Agreement between Bureau of Reclamation and our office (enclosed). Therefore, no further documentation or review of this undertaking is required.



The Idaho State Historical Society is an Equal Opportunity Employer.

Jerrold D. Gregg
June 25, 2003
page 2

We appreciate your cooperation. If you have any questions, please feel free to contact me at 208-334-3847.

Sincerely,

Susan Pengilly Neitzel
Deputy SHPO and
Compliance Coordinator

cc: Ray Leicht, Archaeologist, Bureau of Reclamation

MEMORANDUM OF AGREEMENT

TRANSFER OF TITLE OF RECLAMATION INTERESTS IN SELECTED IRRIGATION AND DRAINAGE FACILITIES TO FREMONT MADISON IRRIGATION DISTRICT

Whereas, the Bureau of Reclamation (Reclamation), Pacific Northwest Region, Snake River Area Office, proposes to transfer to Fremont Madison Irrigation District (FMID) Reclamation's interest in segments of the FMID irrigation system and associated easements and fee title lands;

Whereas, the FMID irrigation system has been determined eligible to the National Register of Historic Places as a linear resource or district, and the segments subject to transfer are contributing elements to that linear resource or district;

Whereas, the proposed transfer of title will have an adverse effect upon the historic resource due to loss of protection of Federal law;

Whereas, the Idaho State Historic Preservation Officer (SHPO) has been consulted pursuant to the regulations (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and has reviewed the proposed undertaking to consider feasible and prudent alternatives and means to minimize or satisfactorily mitigate the adverse effect;

Whereas, the Advisory Council on Historic Preservation (Council) has been notified of the adverse effect and has determined they do not need to participate in the consultation;

NOW, THEREFORE, Reclamation and the Idaho SHPO agree that the undertaking shall be implemented in accordance with the following stipulation in order to mitigate the adverse effect of the undertaking on the historic property, and to meet Reclamation's responsibilities under Section 106 of the National Historic Preservation Act.

STIPULATIONS

1. **Treatment.** Reclamation will complete the following action:

The report entitled "*A Cultural Resources Survey and Evaluation of the Cross Cut Diversion and Teton Wells*," prepared for Reclamation by Sagebrush Consultants, will serve as mitigation for the proposed title transfer. Accordingly, in addition to the final survey report, Reclamation will provide the SHPO with 4 X 6 inch black and white 35 mm prints of each photograph that accompanied the site records prepared by Sagebrush Consultants for the cultural resources survey.

2. **Amendment** If a signatory determines the terms of the MOA cannot be met or that a change is necessary to meet the requirements of the law, that signatory will immediately request that the consulting parties consider an amendment or addendum. Any necessary amendment or addendum will be executed as defined in the 36 CFR 800 regulations.

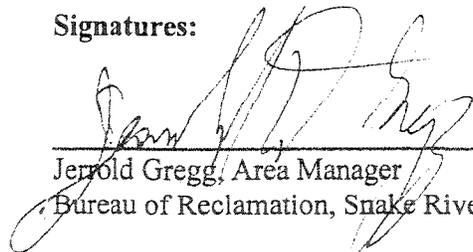
3. **Dispute Resolution** If a dispute arises regarding implementation of the MOA, Reclamation will consult with the objecting party to resolve the dispute. If the dispute cannot be resolved, comments will be requested from the Council, as defined in 36 CFR 800.

4. **Suspension and Termination** Either party to this MOA may suspend it by written notice to the other consulting party. Additional consultations will then occur in an effort to resolve any issues and to re-implement the MOA in amended form. This agreement may be terminated by mutual agreement of the signatories at any time upon written notification of those parties. Failure to carry out the terms of this MOA requires Reclamation to comply with Section 106 in accordance with 36 CFR 800.3-800.6 for this undertaking.

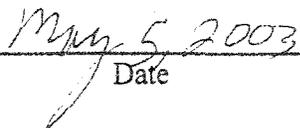
5. **Effective Period** This MOA shall be effective upon its execution by the last signatory and shall remain in effect, unless terminated, suspended, or amended, until June 1, 2003.

Execution of this MOA by Reclamation and the SHPO evidences that Reclamation has afforded the SHPO and Council a reasonable opportunity to comment pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, on the transfer of title to FMID of Reclamation's interests in selected irrigation and drainage facilities. Satisfaction of the stipulations of the MOA indicates that Reclamation has taken into account and mitigated the adverse effects of the project upon affected historic properties.

Signatures:



Jerrold Gregg, Area Manager
Bureau of Reclamation, Snake River Area Office



Date



Susan Neitzel, Deputy SHPO
Idaho State Historic Preservation Office



Date

**Appendix G. ESA-related Correspondence with the U.S.
Fish and Wildlife Service and the National Marine Fisheries
Service**

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DEC 6 2001

Mr. Robert Lohn
Regional Administrator
National Marine Fisheries Service
Northwest Region
7600 Sand Point Way N.E. Building 1
Seattle, Washington 98115-0070

Subject: Request for List of Threatened or Endangered Species Requiring Consideration
7 of the Endangered Species Act for the Potential Transfer of Title of Certain Facilities from
the United States to the Fremont-Madison Irrigation District

Dear Mr. Lohn:

Bureau of Reclamation (Reclamation) is writing to request National Marine Fisheries Service provide us with a current list of listed and proposed species for the proposed area and/or which may be affected by the potential transfer of title of certain facilities to Fremont-Madison Irrigation District. Fremont-Madison Irrigation District (FMID) has indicated that they will seek Congressional authority for Reclamation to transfer ownership interests in the Cross Cut Diversion Dam and Cross Cut Canal, and the Teton Exchange Wells, including all well and water right permits (IDWR permit number 22-7022) to them. These facilities are located either on or near the Henrys Fork of the Snake River and the Teton River in Fremont and Madison Counties, Idaho. The area of concern is bounded by Township 6 North, Range 39 East and Township 9 North, Range 44 East.

The facilities consist of:

Cross Cut Diversion Dam located on the Henrys Fork	
Constructed	1938
Type	Concrete, gravity weir, Ogee, overflow
Structural Ht.	17 ft.
Hydraulic Ht.	10 ft.
Weir Crest Length	355 ft.
Total Length	457 ft.
Crest Elev.	5040.5 ft.
Headworks	2 (left and right abutments)

Cross Cut Canal Headworks Cable operated radial gate,
gasoline engine operator

Last Chance Canal Headworks (Private) Cable Operated radial gate,
Manual operated

Cross Cut Canal	
Length	6.6 miles
Capacity	591 cfs at headworks 759 cfs below North Branch Canal
Reaches	North Branch check and turnout Middle Branch check and turnout South Branch check and turnout

Other

Numerous checks, crossings, bridges,
and flumes

FMID has fully discharged their repayment obligation for these facilities. Additionally, there are no water rights associated with the diversion and canal. The well permit consists of the following five wells plus the right to develop 40 additional wells together with all of Reclamation's water right interests associated with the permit.

Teton Exchange Wells

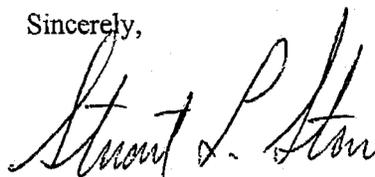
Well #1	Beaver Dick	9500 gpm	685 ft depth
Well #2	Salem Well	7500 gpm	394 ft depth
Well #3	Golf Course	4300 gpm	426 ft depth
Well #4	Egin Well	7500 gpm	503 ft depth
Well #5	Fisher Well	8500 gpm	410 ft depth

FMID has a 25 year contract for the lease of the five wells with Reclamation. The contract has renewal rights and a right to convert to a repayment contract under subsection 9(d) of the Reclamation Project Act of 1939. This allows that once any monetary obligation for the construction of the wells is fulfilled, the wells can be transferred to the district.

Reclamation has entered into a Memorandum of Agreement (MOA) with FMID for the purpose of cooperating in a joint effort to evaluate the environmental impacts, and other factors of concern associated with the proposed transfer. FMID will prepare analyses required for the transfer and Reclamation will be fully responsible for appropriate National Environmental Policy Act (NEPA) and Endangered Species Act (ESA) compliance. Therefore, to initiate the compliance process we request that you provide us with a current list of listed and proposed species for this area and/or which may be affected by this action.

If you have any questions, concerns, or wish to meet with us in regard to this matter please contact, Dick Bauman, Environmental Specialist, at (307) 739-8765, or Chris Ketchum, Resource Manager, at (208) 678-0461, extension 34.

Sincerely,



Stuart L. Stanger
Deputy Area Manager

Identical Letter Sent To:

Mr. Robert Ruesink
U.S. Fish & Wildlife Service
Snake River Basin Office
1387 South Vinnell Way, Room 368
Boise, Idaho 83709

cc: Fremont- Madison Irrigation District, P.O. Box 15, St. Anthony, Idaho 83445

bc: SRA-1000 (Gregg), SRA-6343 (Bauman), PN-1000 (McDonald), PN-1150 (Carr),
PN-3248 (Green), PN-3000 (Beckmann), PN-6500 (McClendon), PN-3030 (Rigby)

CKetchum:ng:12/03/01:fmidsec7_req-edited.wpd

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MIN

SRA-6300
ENV-7.00

DEC 14 2001

Mr. Brian Brown
Assistant Regional Administrator
for Hydropower Programs
National Marine Fisheries Service
525 NE Oregon Street, Suite 500
Portland OR 98232

BUREAU OF RECLAMATION OFFICIAL FILE COPY		
DEC 17 '01		
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Subject: Amending paragraph to letter dated December 6, 2001, Requesting List of Threatened or Endangered Species Requiring Consideration Under Sec. 7 of the Endangered Species Act for the Potential Transfer of Title of Certain Facilities from the United States to the Fremont-Madison Irrigation District

Dear Mr. Brown:

On December 6, 2001, Bureau of Reclamation sent a letter to your agency requesting a List of Threatened or Endangered Species Requiring Consideration Under Sec. 7 of the Endangered Species Act for the Potential Transfer of Title of Certain Facilities from the United States to the Fremont-Madison Irrigation District.

Please amend the aforementioned letter, by replacing paragraph 2 on page 2 with the following:

FMID and Reclamation executed a 25 year "Agreement between the United States and The Fremont-Madison Irrigation District for use of wells, pumps, motors and appurtenant facilities," dated September 17, 1977, for the use of the five wells. The contract has renewal rights and a right to convert to a repayment contract under subsection 9(d) of the Reclamation Project Act of 1939, and therefore has certain renewal and other rights under the Act of July 2, 1956. This allows that once any monetary obligation for the construction of the wells is fulfilled, the wells can be transferred to the district if appropriately authorized by Congress.

The Bureau of Reclamation cannot transfer title without Congressional authority. We apologize for any inconvenience this may have caused. If you have any questions, concerns, or wish to meet with me in regard to this matter, please contact me at (208) 334-1460 or Stuart L. Stanger, Deputy Area Manager at (208) 678-0461, extension 15.

Sincerely,

Jerrold Gregg
Snake River Area Manager

Identical Letter Sent To:

Mr. Robert Ruesink
U.S. Fish & Wildlife Service
Snake River Basin Office
1387 South Vinnell Way, Room 368
Boise, Idaho 83709

cc: Fremont- Madison Irrigation District, P.O. Box 15, St. Anthony, Idaho 83445
Robert Lohn, Regional Administrator, National Marine Fisheries Service, Northwest Region,
7600 Sand Point Way N.E. Building 1, Seattle Washington 98115-0070

bc: SRA-2000 (Stanger), SRA-6343 (Bauman), PN-1000 (McDonald), PN-1150 (Carr),
PN-3248 (Green), PN-6500 (McClendon), PN-3030 (Rigby)

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 NATIONAL MARINE FISHERIES SERVICE

OFFICIAL FILE COPY

SRAC-EAST
 DEC 27 2001

Idaho Habitat Branch
 10215 Emerald St., Suite 180
 Boise, ID 83704

December 20, 2001

A E S I O N	INFO CC TO:		
	To	Initial	Date
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	6400		

MEMORANDUM FOR: Stuart L. Stanger, Deputy Area Manager, US DO, Bureau of Reclamations, Snake River Area Office, Burley ID

FROM: Charley Rains, National Marine Fisheries Service

SUBJECT: Threatened and Endangered Species under National Marine Fisheries Service Jurisdiction in the Henrys Fork of the Snake River and Teton River within the Snake River Basin.

PROJECT: Potential title transfer of facilities to Fremont-Madison Irrigation District: Cross Cut Diversion Dam, Cross Cut Canal, and Teton Exchange Wells.

Charley Rains

This Memorandum responds to your December 6, 2001 letter requesting a list of Endangered Species Act (ESA) species under the jurisdiction of the National Marine Fisheries Service (NMFS) for the Potential title transfer of facilities to Fremont-Madison Irrigation District the facilities includes: Cross Cut Diversion Dam, Cross Cut Canal, and Teton Exchange Wells.

Henrys Fork of the Snake River and Teton River are above dams or longstanding, naturally impassable barriers. Because of this, there are no Endangered Species Act (ESA) species under the jurisdiction of the National Marine Fisheries Service within these drainages. Also, because of these barriers, the Henrys Fork of the Snake River and Teton River are not designated as Critical Habitat for any listed anadromous fish species. This memo responds only to anadromous fish listings under NMFS's jurisdiction. The U.S. Fish and Wildlife Service should be contacted regarding species under its jurisdiction.

Charley Rains
 (208) 378-5686
 National Fire Plan Biologist
 National Marine Fisheries Service
 10215 W. Emerald, Suite 180
 Boise, ID 83704



ESA Listed Species Under NMFS Jurisdiction

None

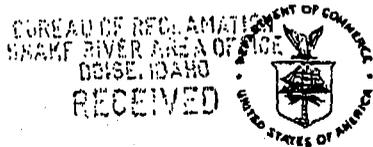
cc: B. Ruesink - USFWS
BFO - File Copy

Address for

Stuart L. Stanger, Deputy Area Manager,
US DOI, Bureau of Reclamations
Snake River Area Office
1339 Hansen Ave.
Burley ID 83318-1821

Address for cc:

Bob Ruesink
Supervisor, U.S. Fish and Wildlife Service
Snake River Basin Office
1387 S. Vinnell Way, Room 368
Boise, ID 83709



MAR 25 02

TO	FROM	DATE	INITIALS

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
 525 NE Oregon Street
 PORTLAND, OREGON 97232-2737

F/NWR5

March 19, 2002

1000
1001

Stuart L. Stanger
 US Bureau of Reclamation
 Snake River East Area Office
 1359 Hansen Avenue
 Burley, ID 83318

RE: Fremont-Madison wellfield title transfer, species list for consultation

Dear Mr. ^{Stanger} Stanger:

This letter responds to your December, 6, 2001 request for a list of species to be considered in consultation on the subject action. This letter also clarifies and supercedes a December 20, 2001 letter from National Marine Fisheries Service (NMFS) that incorrectly stated that because the proposed action area is outside of the critical habitat of species under our jurisdiction we have no interest in the action. Because streamflow conditions within listed species' critical habitat affects those species, any action which may affect streamflow conditions within critical habitat may also affect listed species. Critical habitat for listed Columbia basin anadromous fish extends from the upstream limits of accessible tributary streams and headwater lakes to the Columbia River estuary and nearshore ocean plume. To the extent that your proposed action may affect streamflow conditions in the Snake River, it may affect all of the listed species in the Snake and Columbia rivers listed below.

- Snake River (SR) spring/summer chinook salmon (*Oncorhynchus tshawytscha*; listed as threatened on April 22, 1992 [57 Federal Register (FR) 14653]); critical habitat designated on December 28, 1993 [58 FR 68543], and revised on October 25, 1999 [64 FR 57399]
- Snake River (SR) fall chinook salmon (*O. tshawytscha*; listed as threatened on April 22, 1992 [57 FR 14653]); critical habitat designated on December 28, 1993 [58 FR 68543]
- Upper Columbia River (UCR) spring chinook salmon (*O. tshawytscha*; listed as endangered on March 24, 1999 [64 FR 14308]); critical habitat designated on February 16, 2000 [65 FR 7764]
- Upper Willamette River (UWR) chinook salmon (*O. tshawytscha*; listed as threatened on March 24, 1999 [64 FR 14308]); critical habitat designated on February 16, 2000 [65 FR 7764]



- Lower Columbia River (LCR) chinook salmon (*O. tshawytscha*; listed as threatened on March 24, 1999 [64 FR 14308]); critical habitat designated on February 16, 2000 [65 FR 7764]
- Snake River (SR) steelhead (*O. mykiss*; listed as threatened on August 18, 1997 [62 FR 43937]); critical habitat designated on February 16, 2000 [65 FR 7764]
- Upper Columbia River (UCR) steelhead (*O. mykiss*; listed as endangered on August 18, 1997 [62 FR 43937]); critical habitat designated on February 16, 2000 [65 FR 7764]
- Middle Columbia River (MCR) steelhead (*O. mykiss*; listed as threatened on March 25, 1999 [64 FR 14517]); critical habitat designated on February 16, 2000 [65 FR 7764]
- Upper Willamette River (UWR) steelhead (*O. mykiss*; listed as threatened on March 25, 1999 [64 FR 14517]); critical habitat designated on February 16, 2000 [65 FR 7764]
- Lower Columbia River (LCR) steelhead (*O. mykiss*; listed as threatened on March 19, 1998 [63 FR 13347]); critical habitat designated on February 16, 2000 [65 FR 7764]
- Columbia River (CR) chum salmon (*O. keta*; listed as threatened on March 25, 1999 [64 FR 14508]); critical habitat designated on February 16, 2000 [65 FR 7764]
- Snake River (SR) sockeye salmon (*O. nerka*; listed as endangered on November 20, 1991 [56 FR 58619]); critical habitat designated on December 28, 1993 [58 FR 68543]

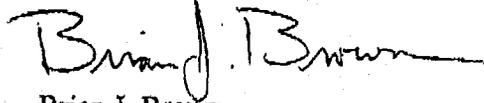
To complete consultation on this project the U.S. Bureau of Reclamation should provide a written determination of whether this proposed action is likely to adversely affect the above listed species and submit all information used to support that conclusion. In the event you determine that the proposed action is not likely to adversely affect the listed species, we would review all relevant information regarding the likely effects of your proposed action to determine if we could concur. If we concur, then we would provide you with a written concurrence letter, thereby completing consultation as per 50 CFR 402.13 Informal Consultation.

If we could not concur with your "not likely to adversely affect" conclusion, or if you conclude that adverse effects are likely, then formal consultation would be required (50 CFR 402.12).

NMFS' primary concern in this consultation is the extent to which title transfer would affect the availability of water during the juvenile salmon outmigration season (April - August). As title transfers are permanent, their effects would be permanent. Accordingly, we need to ensure that such title transfers not foreclose opportunities to secure sources of water for USBR's flow augmentation program.

Please send all further correspondence regarding this action to the attention of Rich Domingue, 503-231-6858, at this office.

Sincerely,

A handwritten signature in black ink that reads "Brian J. Brown". The signature is written in a cursive style with a long horizontal flourish at the end.

Brian J. Brown
Assistant Regional Administrator
Hydro Program

cc: Jerrold Gregg ✓



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Snake River Basin Office, Columbia River Basin Ecovregio
1387 South Vinnell Way, Room 368
Boise, Idaho 83709

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Return to me

Memorandum

To: Area Manager, Snake River Area Office - East, Bureau of Reclamation, Burley, Idaho (Attention: Chris Ketchum)

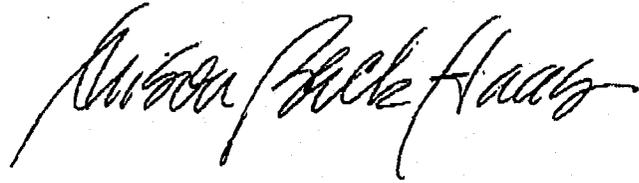
From: *ACT/BA* Supervisor, Snake River Basin Office, Fish and Wildlife Service, Boise, Idaho

Subject: Transfer of Title of Facilities to the Fremont-Madison Irrigation District -- Fremont and Madison Counties, Idaho -- Species List
File #1008.0220 1-4-02-SP-541

The U. S. Fish and Wildlife Service (Service) is providing you with a list of endangered, threatened, proposed, and/or candidate species which may be present in the area of the proposed transfer of title of certain facilities from the Bureau of Reclamation to the Fremont-Madison Irrigation District, Fremont and Madison Counties, Idaho. The list fulfills requirements for a species list under Section 7(c) of the Endangered Species Act of 1973 (Act), as amended. If the project decision is not made within 180 days of this letter, regulations require that you request an updated list. Please refer to the number shown on the list (Enclosure) in all correspondence and reports.

Section 7 of the Act requires Federal agencies to assure that their actions are not likely to jeopardize the continued existence of endangered or threatened species. Federal funding, permitting, or land use management decisions are considered to be Federal actions subject to Section 7. If the proposed action may affect a listed species, consultation with the Service is required. Formal consultation must be initiated for any project that is likely to adversely affect a threatened or endangered species. If a project involves a major construction activity and may affect listed species, Federal agencies are required to prepare a Biological Assessment. If a proposed species is likely to be jeopardized by a Federal action, regulations require a conference between the Federal agency and the Service.

If you need any further information, please contact Deb Mignogno of our Eastern Idaho sub-office at (208) 237-6975. Thank you for your continued interest in endangered species conservation.

A handwritten signature in black ink, appearing to read "Alison Beck Hayes". The signature is written in a cursive, flowing style.

Attachments

cc: FWS-ES, Chubbuck (Mignogno)

ATTACHMENT

LISTED AND PROPOSED ENDANGERED AND THREATENED
SPECIES, AND CANDIDATE SPECIES THAT MAY OCCUR
WITHIN THE AREA OF THE TRANSFER OF TITLE OF FACILITIES FROM THE BUREAU
OF RECLAMATION TO THE FREMONT-MADISON IRRIGATION DISTRICT
SP #1-4-02-SP-541

LISTED SPECIES

COMMENTS

Bald eagle (LT)
(Haliaeetus leucocephalus)

Wintering area/nesting area

Whooping crane (XN)
(Crus americana)

Experimental/Non-
essential population

Ute ladies'- tresses (LT)
(Spiranthes diluvialis)

PROPOSED SPECIES

None

CANDIDATE SPECIES

Yellow-billed cuckoo (C)
(Coccyzus americanus)

GENERAL COMMENTS

- LE - Listed endangered
- LT - Listed threatened
- XN - Experimental/non-essential population
- PT - Proposed threatened
- C - Candidate

UTE LADIES'-TRESSES (*Spiranthes diluvialis*) has the potential to occur in wetland and riparian areas including springs, wet meadows, and river meanders. The plant is known to occur at sites ranging from 1,500 to 7,000 feet in elevation. This species generally flowers from mid-July through September, and can be identified definitively only at that time. The orchid can remain dormant for several years; therefore, we suggest surveys for the orchid be scheduled for sequential years. The species may be adversely affected by modification of riparian and wetland habitats associated with livestock grazing, vegetation removal, excavation, construction for residential or commercial purposes, stream channelization, hydroelectric development and operation, and actions that alter hydrology.

WHOOPIING CRANE (*Grus americana*) – is listed as endangered in the coterminous United States, except where it is listed as a nonessential experimental population. The geographic areas where the nonessential experimental populations can be found include Idaho and the western half of Wyoming. Federal action agencies are required to confer with the Service if their actions are likely to jeopardize the continued existence of whooping cranes; or you have the option of conferring with the Service regardless of your determination.

CANDIDATE SPECIES that appear on the Enclosure have no protection under the Act, but are included for your early planning consideration. Candidate species could be proposed or listed during the project planning period, and would then be covered under Section 7 of the Act. The Service advises an evaluation of potential effects on candidate species that may occur in the project area.

YELLOW-BILLED CUCKOO (*Coccyzus americanus*) is a candidate species. On July 24, 2001 the U.S. Fish and Wildlife Service published its finding that the yellow-billed cuckoo warrants protection under the Endangered Species Act but is precluded from listing by other priorities. Yellow-billed cuckoos in the West are overwhelmingly associated with relatively expansive stands of mature cottonwood-willow forests. They appear to be dependent on the combination of a dense willow understory for nesting, a cottonwood overstory for foraging and large patches of habitat in excess of 20 ha. The species will occupy a variety of marginal habitats, particularly at the edges of their range, but is not known to use non-native vegetation in the majority of its range. The species should be considered when actions involve habitat that is now, or was historically, suitable for yellow-billed cuckoos.

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
RECEIVED

SEP -2 04



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

10008
2000

August 31, 2004

Jerrold D. Gregg
US Bureau of Reclamation
Snake River Area Office
230 Collins Road
Boise, ID 83702-4520

RE: Informal Consultation on the Fremont-Madison Title Transfer, Request for Concurrence and Request for Comments on the Draft Environmental Assessment of May 2004.
NOAA Fisheries Consultation No. 2004/00846.

Dear Mr. Gregg:

This letter responds to your May 27, 2004, letter requesting the National Marine Fisheries Service's (NOAA Fisheries) concurrence with your "not likely to adversely affect" determination regarding anadromous fish species listed under the Endangered Species Act (ESA) for the proposed action of transferring the title and other U.S. Government interests in specific lands, facilities, and water rights associated with the Cross Cut Diversion Dam, Cross Cut Canal, the Teton Exchange Wells, and Idaho water right permit # 22-7022 for additional undrilled wells. NOAA Fisheries concurs with your determination.

The species considered in this consultation are listed below:

- Snake River (SR) spring/summer chinook salmon (*Oncorhynchus tshawytscha*; listed as threatened on April 22, 1992 [57 Federal Register {FR} 14653]); critical habitat designated on December 28, 1993 [58 FR 68543], and revised on October 25, 1999 [64 FR 57399].
- Snake River (SR) fall chinook salmon (*O. tshawytscha*; listed as threatened on April 22, 1992 [57 FR 14653]); critical habitat designated on December 28, 1993 [58 FR 68543].
- Upper Columbia River (UCR) spring chinook salmon (*O. tshawytscha*; listed as endangered on March 24, 1999 [64 FR 14308]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.
- Upper Willamette River (UWR) chinook salmon (*O. tshawytscha*; listed as threatened on March 24, 1999 [64 FR 14308]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.



- Lower Columbia River (LCR) chinook salmon (*O. tshawytscha*; listed as threatened on March 24, 1999 [64 FR 14308]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.
- Snake River (SR) steelhead (*O. mykiss*; listed as threatened on August 18, 1997 ([62 FR 43937]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.
- Upper Columbia River (UCR) steelhead (*O. mykiss*; listed as endangered on August 18, 1997 [62 FR 43937]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.
- Middle Columbia River (MCR) steelhead (*O. mykiss*; listed as threatened on March 25, 1999 [64 FR 14517]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.
- Upper Willamette River (UWR) steelhead (*O. mykiss*; listed as threatened on March 25, 1999 [64 FR 14517]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.
- Lower Columbia River (LCR) steelhead (*O. mykiss*; listed as threatened on March 19, 1998 [63 FR 13347]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.
- Columbia River (CR) chum salmon (*O. keta*; listed as threatened on March 25, 1999 [64 FR 14508]); critical habitat designated on February 16, 2000 [65 FR 7764], but vacated by court order on April 30, 2002.
- Snake River (SR) sockeye salmon (*O. nerka*; listed as endangered on November 20, 1991 [56 FR 58619]); critical habitat designated on December 28, 1993 [58 FR 68543].

In reviewing water resource proposals in areas outside of occupied salmon and steelhead habitats, our principal concern is the potential effect of the action on hydrologic conditions (e.g., flows and water quality) in occupied habitat. For the action under consideration, occupied habitat in the Snake River downstream from Hells Canyon Dam and the Columbia River downstream from its confluence with the Snake River is the area of interest – termed action area in our regulations implementing the ESA.

As described in the Draft Environmental Assessment of May 2004 (DEA) for this proposed action, the facilities, water rights, and permits you propose to transfer to the Fremont-Madison Irrigation District (FMID) are part of the U.S. Bureau of Reclamation's (USBR) Minidoka and Teton Basin projects. NOAA Fisheries has previously consulted on the effects of USBR's operation and maintenance of these and 9 other projects in the Upper Snake River Basin (May 1999, March 2001, and March 2003). Through those consultations, the adverse effects of project

operations were mitigated within the limits of USBR discretion through a Snake River streamflow augmentation program. The program aims to provide up to 427,000 acre-feet of water from storage and natural flow water rights that have been acquired or reassigned by USBR for that purpose. The program is designed to benefit ESA-listed Snake River fall chinook salmon by increasing streamflows and thereby fish survival during their annual seaward migration. This mitigation effort would continue under the proposed action.

However, the proposed action includes the potential development of 5 to 8 additional wells under Idaho water right permit #22-7022, with a potential production of an additional 50,000 acre-feet of groundwater above current withdrawals. Your analysis shows that, during low water years, this additional ground water development would have the potential to reduce flows in the Snake River near Lewisville, Idaho, by up to about 8,000 acre-feet per annum (DEA Figure 21), and that flow reductions further downstream at Milner Dam would be considerably smaller and less frequent (about 5% of the modeled months showed a flow reduction, August 14, 2004, addendum, revised page 35) with very occasional episodes of higher depletions. Your analysis also shows that streamflow depletions at Milner Dam would occur primarily during the months of February through June. The largest depletions were associated with the aggregation of storage deficits from prior years reducing system discharge during subsequent flood control drafting operations. These effects would negligibly reduce streamflows in the Snake River during the spring juvenile outmigration (e.g. Snake River spring chinook salmon and Snake River steelhead) and would be unlikely to affect Snake River flows during the juvenile fall chinook salmon outmigration season (June 21 through August 31).

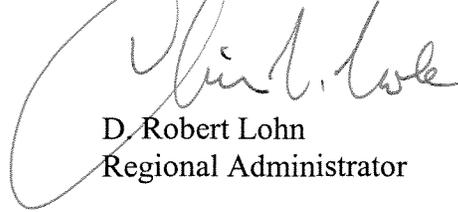
In accordance with a Memorandum of Agreement between FMID and the Twin Falls and North Side canal companies (DEA Appendix C), any new well development would need to demonstrate no impact on the interests of the downstream canal companies and other irrigation water users to the satisfaction of the Idaho Department of Water Resources. Thus the potential for adverse impacts to streamflows in currently occupied habitats downstream from Hells Canyon Dam as a result of the proposed action appears to be quite small, with the largest effects most likely to occur during periods of higher runoff.

We conclude that even if this small hydrologic effect propagates downstream from Milner Dam unattenuated by intervening water developments and uses, it would have a negligible adverse effect on anadromous fish survival downstream from Hells Canyon Dam, the upstream limit of currently occupied habitat. For this reason, NOAA Fisheries concurs with your “not likely to adversely affect” determination.

The USBR must reinitiate the ESA consultation if new information becomes available or circumstances occur that may affect listed species or their critical habitat in a manner or to an extent not previously considered, or a new species is listed or critical habitat is designated that may be affected by the proposed action.

This concludes informal consultation on the proposed action described in the Draft Biological Assessment. We respectfully decline to comment on the DEA. If you have any questions regarding this letter, please contact Rich Domingue, Hydropower Division, at 503-231-6858.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Robert Lohn". The signature is written in a cursive style with a large, sweeping initial "D".

D. Robert Lohn
Regional Administrator

Appendix H. Letters to and Meetings with Tribal Governments

1998

April 28, 1998 Letter to the Chairman of the Fort Hall Business Council, Shoshone-Bannock Tribes, regarding Reclamation's transfer of title initiative

1999

January 28, 1999 Letter to the Chairman of the Fort Hall Business Council, Shoshone-Bannock Tribes, regarding transfer of title activities associated with Reclamation facilities within the State of Idaho.

September 9, 1999 Letter to the Chairman, Shoshone-Paiute Tribal Council, Duck Valley Reservation, requesting a meeting to discuss Reclamation initiatives that included Fremont-Madison Title Transfer.

2001

August 10, 2001 Letter requesting meeting with the Fort Hall Business Council, Shoshone-Bannock Tribes, to discuss Reclamation programs and activities.

September 19, 2001 Letter to the Chairman of the Fort Hall Business Council, Shoshone-Bannock Tribes, confirming postponement of meeting scheduled for September 21, 2001, due to the tragic national incident and associated security and travel issues.

November 19, 2001 Meeting with the Fort Hall Business Council, Shoshone-Bannock Tribes, to discuss Reclamation programs and activities including title transfer.

December 18, 2001 Letter to the Chairman of the Fort Hall Business Council, Shoshone-Bannock Tribes, regarding the proposed title transfer of Cross Cut Diversion Dam, Cross Cut Canal, and Teton Exchange Wells to Fremont-Madison Irrigation District.

December 18, 2001 Letter to the Chairman of the Northwestern Band of the Shoshone Nation regarding the proposed title transfer of Cross Cut Diversion Dam, Cross Cut Canal, and Teton Exchange Wells to Fremont-Madison Irrigation District.

Appendix H

2002

- January 8, 2002 Letter to the Chairman of the Fort Hall Business Council, Shoshone-Bannock Tribes, summarizing the November 19, 2001, meeting.
- February 1, 2002 Meeting with the Shoshone-Paiute Tribal Council, Shoshone-Paiute Tribes of the Duck Valley Reservation.
- February 25, 2002 Meeting with staff of the Shoshone-Bannock Tribes at which proposed Fremont-Madison Irrigation District Title Transfer was discussed.
- April 10, 2002 Letter to the Chairman of the Shoshone-Paiute Tribal Council, Duck Valley Reservation, summarizing the February 1, 2002, meeting.

2003

- February 21, 2003 Letter to the Chairman of the Shoshone-Paiute Tribal Council, Duck Valley Reservation, requesting a meeting to discuss Reclamation programs and activities.
- March 11, 2003 Meeting with staff of the Shoshone-Bannock Tribes at which title transfer was discussed.
- April 2, 2003 Meeting with the Shoshone-Paiute Tribal Council, Shoshone-Paiute Tribes, Duck Valley Reservation, to discuss Reclamation programs and activities.
- April 22, 2003 Summary of April 2, 2003, meeting with the Tribal Council, Shoshone-Paiute Tribes, Duck Valley Reservation, with enclosure, the Summary of Programs and Activities, Spring 2003.
- April 22, 2003 Letter to the Chairman of the Fort Hall Business Council, Shoshone-Bannock Tribes, confirming an April 30, 2003, meeting.
- April 28, 2003 Letter to the Chairman of the Natural Resource Committee of the Nez Perce Tribe requesting a meeting to discuss Reclamation programs and activities.
- April 30, 2003 Meeting with the Fort Hall Business Council, Shoshone-Bannock Tribes.
- June 3, 2003 Meeting with the Nez Perce Tribe Natural Resource Committee to discuss various Reclamation programs and activities.

June 19, 2003 Letter summarizing April 30, 2003, meeting with the Fort Hall Business Council, Commission members and staff of the Shoshone-Bannock Tribes.

June 19, 2003 Letter to the Chairman of the Burns Paiute Tribe General Council requesting meeting to discuss Reclamation programs and activities, including title transfer.

2004

May 25, 2004 Letter to the Chairman of the Fort Hall Business Council of the Shoshone- Bannock Tribes, requesting comments on the Draft Environmental Assessment

May 25, 2004 Letter to the Chairwoman of the Northwestern Band of the Shoshone Nation Tribal Council, requesting comments on the Draft Environmental Assessment

May 25, 2004 Letter to the Chairman of the Nez Perce Tribal Executive Committee, requesting comments on the Draft Environmental Assessment

Appendix I. Public Comment Letters and Responses



Idaho Water Users Association, Inc.

205 N. 10th St., Suite 530 • BOISE, IDAHO 83702
OFFICE - 208-344-6690 • FAX - 208-344-2744
E-MAIL - iwua@iwua.org
WEBSITE - www.iwua.org

LND-S.00
GF

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KEITH ERIKSON
1st Vice President
REX BARRIE
2nd Vice President
NORMAN M. SEMANKO
Executive Director &
General Counsel
GAYLE L. BATT
Assistant Director

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Caldwell - District 13
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Boise - District 14
JIM HUDSON
Post Falls - District 15
HAROLD MOHLMAN
Rupert - District 16
LYNN CARLOQUIST
Hazelton - District 17
DEAN STEVENSON
Paul - District 18
SCOTT BREEDING
Hazelton - At-Large
BILLY R. THOMPSON
Rupert - At-Large
DAVE SHAW
Boise - Associate
TOM MICHALEK
Coeur d'Alene - Associate

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Federal Affairs Committee
DALE SWENSEN
NWRA Director
ROGER D. LING
Policy Committee

Attn: Mike Relf
Bureau of Reclamation
Pacific Northwest Regional Office
1150 North Curtis Road, Suite 100
Boise, ID 83706

Dear Mr. Relf:

This letter is provided on behalf of the Idaho Water Users Association (IWUA) in support of the proposed action (Alternative B) of title transfer, as described in the Fremont-Madison Conveyance Act (Public Law 108-85, enacted on September 30, 2003). IWUA represents more than 300 irrigation districts, canal companies, ground water districts, water districts, municipalities, public water suppliers, hydropower interests, aquaculture companies, agri-businesses, professional firms and individuals, all dedicated to the wise and efficient development and use of our water resources. IWUA members deliver water to approximately 2.5 million acres of irrigated land. IWUA is proud to count Fremont-Madison Irrigation District (FMID) among its members.

IWUA has strongly supported title transfers for its members, including Burley Irrigation District, Nampa & Meridian Irrigation District, and American Falls Reservoir District #2. We urge you to support the proposed action Alternative B for FMID.

IWUA adopted the attached resolution at its Annual Conference in January 2003 expressing support for the FMID title transfer. IWUA supports the efforts of FMID to acquire full title of the facilities where requested and feel that they can efficiently and effectively manage such facilities. Thank you for your time and consideration in this matter.

Sincerely,

Norman M. Semanko
Executive Director &
General Counsel

Enclosure

BUREAU OF RECLAMATION
OFFICIAL FILE COPY
June 7, 2004 JUN 09 04
TO: 6303 BY: Jme DATE: 6/10/04
CONTROL #: 4-2535
FOLDER #: 7772-2

RESOLUTION NO. 2002-14
FREMONT-MADISON IRRIGATION DISTRICT TITLE TRANSFER

WHEREAS, Fremont-Madison Irrigation District (Fremont-Madison) is involved in a process to obtain the transfer of the legal title of portions of certain physical facilities used by Fremont-Madison, namely: the Cross Cut Diversion Dam, the Cross Cut Canal, the five (5) developed wells drilled pursuant to Idaho Water Permit 22-07022 and the assignment of said permit, all of which property rights are presently held by the United States, Bureau of Reclamation (Bureau); and

WHEREAS, Fremont-Madison is also working with the Bureau to complete the administrative process for the title transfer and is drafting a bill to convey the said facilities to Fremont-Madison for introduction in the Congress of the United States; and

WHEREAS, Fremont-Madison has controlled, managed, operated, and maintained the said facilities with permission and direction from the Bureau at all times since they were constructed.

NOW, THEREFORE, BE IT RESOLVED, That the Idaho Water Users Association supports Fremont-Madison in their effort to acquire legal title from the United States to the Cross Cut Division Dam, the Cross Cut Canal, the five (5) wells developed under Permit 22-07022, together with the right to further develop wells under Permit 22-07022, but only pursuant to a plan which mitigates for injury of all irrigation water users and which is approved by the Idaho Department of Water Resources.

LND - 5.00
30 MIN

OFFICIAL FILE COPY
JUN 28 '04

TO	INIT	DATE
6303	mm	6/29/04
Dirk Kempthorne, Governor C. Stephen Allred, Director		
CONTROL #: 4-2777		
FOLDED 7715-2		



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B • Idaho Falls, Idaho 83402-1718 • (208) 528-2650

June 24, 2004

Bureau of Reclamation
Pacific Northwest Regional Office
Attn: Mike Relf
1150 North Curtis Rd., Suite 100
Boise, ID 83706

RE: Response to Review of Draft Environmental Assessment for the Proposed Fremont-Madison Irrigation District Title Transfer

The Department of Environmental Quality (DEQ) has taken the opportunity to review the Draft Environmental Assessment (EA) for the Proposed Fremont-Madison Irrigation District Title Transfer. From our review we have not identified any water quality issues of concern pertaining to the EA. We appreciate the opportunity to participate in the review process. Please retain your mailing information for future comment periods and scoping documents and continue to keep us informed of any potential decisions that may impact water quality.

Sincerely,

Melissa Thompson
Sr. Water Quality Analyst
Department of Environmental Quality
Idaho Falls Regional Office

cc: Troy Saffle, Regional Water Quality Manager, DEQ-IFRO

Responses to Greater Yellowstone Coalition Letter

- 1-1 The Council on Environmental Quality regulations for implementing NEPA require that alternatives be considered where they are unresolved conflicts concerning alternative uses of available resources. In this case, the proposed Federal action implements the provisions of the Conveyance Act. Alternatives (other than the required No Action alternative) that would not implement the Conveyance Act were eliminated during the scoping process as unreasonable.
- 1-2 Reclamation recognizes there are numerous conceivable alternatives that include title transfer for various combinations of facilities. However, the Conveyance Act requires that all identified facilities be transferred. Our analysis indicates that transferring ownership of the requested facilities will not create a physical impact to the environment, violate treaty rights, unduly affect economically disadvantaged populations, or adversely disrupt the local or regional economies. Therefore, considering alternative combinations of wells, canal, or diversion facilities is not needed for the purpose of understanding the impacts caused by the implementation of the project.
- 1-3 The Secretary has not yet transferred title for the requested facilities. Section 6 of the Conveyance Act says, “Prior to conveyance the Secretary shall complete all environmental reviews and analyses as set forth in the Memorandum of Agreement referenced in section 3(a).” Section 3(a) specifically refers to transfer analysis and documentation.

The Conveyance Act requires the Secretary to transfer the described facilities. Before Reclamation can take action to implement this law, it first must complete the NEPA process. This environmental assessment precedes the transfer of title; the transfer of title is contingent on either a finding of no significant impact or a full environmental impact statement and record of decision.

