

# CENTRAL UTAH PROJECT COMPLETION PROGRAM

## **Chapter 7**

October 2004

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This chapter presents the following concerning the repayment of Bonneville Unit project costs:

- summary of the allocation of project costs to reimbursable and non-reimbursable purposes;
- calculation of local cost share obligations under CUPCA Section 204;
- summary of Bonneville Unit repayment contracts;
- determination of the amount of the Section 211 deferral of M&I repayment; and
- calculation of the repayment obligations for costs allocated to irrigation, M&I, and power purposes.

All tables referenced in this chapter are found at the end of the text. Also note that several of the tables in Chapters 6 and 7 contain cells with the notation “#DIV/0!” The appearance of this notation is not an error. #DIV/0! signifies that, in that cell, the denominator is zero.

### REIMBURSABLE AND NON-REIMBURSABLE COSTS

A. Colorado River Storage Project Act Sections 5 and 8. The Bonneville Unit of the Central Utah Project was authorized under the Colorado River Storage Project Act (CRSPA) and the Central Utah Project Completion Act (CUPCA). Sections 5 and 8 of CRSPA define two types of funding for projects authorized under CRSPA. Expenditures authorized under Section 8 are for specific fish and wildlife (F&W) or recreation facilities. Section 8 costs are non-reimbursable. In other words, there is no repayment obligation associated with Section 8 expenditures.

Section 5 expenditures are for water supply and power facilities. Whether expenditures of Section 5 funds are reimbursable depends on the purpose for which the funds were expended. In general, Section 5 costs allocated to the following purposes are reimbursable:

- irrigation construction (reimbursed without interest);
- municipal and industrial (M&I) (reimbursed with interest); and
- commercial power (reimbursed with interest).

Section 5 purposes for which reimbursement is not required are:

- F&W (including in-stream flows);
- flood control;
- highway improvement; and
- irrigation interest.

B. Adjustment of IDC from Cost Allocation to Repayment. The IDC allocated to M&I water and commercial power is fully reimbursable with interest. The project repayment rate is 3.222 percent. The IDC costs allocated in Chapter 6 to reimbursable purposes were calculated using the project planning rate of 3.125 percent. In order to adjust these IDC costs from the 3.125 percent planning rate to the 3.222 percent repayment rate, they have been increased by a factor of 1.03104. Table 7-1: Adjustment of IDC Cost for Repayment (Section 5 and Section 8) adjusts the IDC costs to repayment levels.

- C. Operation, Maintenance and Replacement. Under Reclamation Law, the ultimate responsibility for OM&R of project facilities rests with the federal government (in most cases, the Bureau of Reclamation (Reclamation)). It is an accepted practice for the day-to-day OM&R responsibility to be delegated to the local water users district or association by contract. Under such an arrangement, the water users are required to operate and maintain the facilities to federal standards. In the case of the Bonneville Unit, Reclamation and the CUPCA Office of the Department of the Interior have contracted with the District to operate and maintain the project features.

For the reimbursable portions of facilities (those portions allocated to irrigation, M&I, or power), the annual OM&R costs associated with reimbursable facilities and purposes will be paid by the water and power users. Non-reimbursable costs will be appropriated from the budgets of federal and non-federal agencies administering the project functions determined to be non-reimbursable.

- D. Authority for Non-Reimbursable Costs. The following is a list of non-reimbursable project purposes along with the status which made them non-reimbursable.
1. Abandoned Irrigation Investigations. Certain Bonneville Unit abandoned irrigation investigations were made non-reimbursable by CUPCA Section 201 (b).
  2. Abandoned Power Investigations. Bonneville Unit abandoned power investigations were made non-reimbursable by CUPCA Section 201 (b).
  3. Fish and Wildlife. Fish and wildlife costs were made non-reimbursable by Sections 5 and 8 of CRSPA and the 1958 Fish and Wildlife Coordination Act.
  4. Flood Control. The Reclamation Act of 1939 made flood control cost non-reimbursable.
  5. Highway Improvement. The Water Resources Development Act of 1974 made highway improvement costs non-reimbursable.
  6. In-Stream Flows. Expenditures for in-stream flows are a subset of fish and wildlife expenditures and, as a result, are authorized under the same statutes that authorize fish and wildlife as a project purpose, i.e. the Fish and Wildlife Coordination Act and CRSPA. In addition, CUPCA specifically authorizes in-stream flows as a project purpose in Sections 202 (c), 302, and 303.
  7. Irrigation Interest. The Reclamation Act of 1939 Act relieved irrigators of interest charges—both IDC and repayment interest.
  8. Recreation. The CRSPA made recreation costs non-reimbursable.

#### **CALCULATION OF CUPCA SECTION 204 LOCAL COST SHARE**

- A. Authority for Local Cost Share. Section 204 of CUPCA states:

“The non-Federal share of the cost for the design, engineering, and construction of the Central Utah Project features authorized by Section 202 and 203 shall be 35 percent of the total reimbursable costs and shall be paid concurrently with the Federal share, except that for the facilities specified in 202(a) (6), the cost-share shall be 35 percent of the costs allocated to irrigation beyond the ability of irrigators to repay. The non-Federal share of the cost for studies required by Sections 202 and 203, other than the study required by Section 202 (a) (5), shall be 50 percent and shall be paid concurrently with the Federal share.”

- B. Calculation of Local Cost Share. Local cost share is calculated in accordance with the Section 204 local cost share requirement. Because Section 204 limits the local cost share requirement to reimbursable costs, only irrigation, power, and M&I allocation generate a local cost share obligation. The total cost share obligation for each facility is divided proportionately among the three reimbursable purposes according to the allocation of costs.

The Diamond Fork System is the only exception to the application of the Section 204 local costs share requirement. For Diamond Fork, Section 204 requires that the local cost share in Diamond Fork be equal to 35 of percent Diamond Fork’s allocation to irrigation. Regarding Diamond Fork, the District and the United States have agreed to a rate of 5.18 percent local cost share (which exceeds that required under Section 204).

Prior to the construction of the Diamond Fork System, the District and the United States entered into a contract under the guidelines of Drainage and Minor Construction (D&MC) Contracts (Contract No. 99-07-40R-6180). This contract (among other things) established the local cost share requirement. This requirement was based on a preliminary and incomplete estimate of cost allocation in Diamond Fork. Later, the D&MC Contract was amended and the local cost share requirement was reduced (based on a more-refined but still preliminary allocation of Diamond Fork costs).

The rate under the amended D&MC Contract is 5.18 percent. Throughout the construction of the Diamond Fork System, both the United States and the District relied upon this rate. As a result, further refinement of the local cost share rate for Diamond Fork presents difficulties to both the District and the United States. As a result, both parties have elected to continue using 5.18 percent as the local cost share rate for the Diamond Fork System.

Table 7-2: Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs (Section 5 Construction) performs the following functions:

1. For all Section 5 Construction costs (both USBR and CUPCA costs), Table 7-2 takes the allocation of a facility’s construction costs to the various project purposes and divides it among remaining joint costs, reimbursable costs, and non-reimbursable costs.
2. For CUPCA facilities, studies and programs, Table 7-2 then applies the local cost share percentage to the reimbursable costs, calculating the local costs share.

3. For CUPCA facilities, Table 7-2 deducts the local cost share obligation from the reimbursable costs for each feature. The remainder is the net amount eligible for repayment. For USBR facilities, reimbursable costs are equal to the amount to be repaid (because local cost share is zero).
4. At the end of the Table 7-2, the remaining joint costs are divided among project purposes and the local cost share associated with the remaining joint costs is calculated. For USBR remaining joint costs, there is no local cost share. Among the CUPCA remaining joint costs, some fall under the 35 percent local cost share requirement and some fall under the 50 percent requirement.

Table 7-3: Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs (Section 5 IDC) performs the same functions for Section 5 IDC costs. The local share associated with IDC represents the amount of interest that would have accrued to the local share of construction costs during the construction period and is deducted from reimbursable IDC in the repayment analysis.

#### **ADJUSTMENTS TO AMOUNTS SUBJECT TO REPAYMENT**

Table 7-4: Summary of Costs and Repayment (Section 5 Construction and IDC) summarizes the information developed in Tables 7-2 and 7-3, combining construction and IDC costs associated with: USBR features; CUPCA features, studies, and programs; the Indian Ford Exchange; and remaining joint costs. The results are the total costs allocated to each project purpose. From the reimbursable purposes, local costs share is deducted, which results in total construction and IDC costs net of local cost share.

Table 7-4 contains a final series of adjustment to reimbursable purposes. The application of these adjustments further reduces the net construction and IDC costs and results in the final costs which are subject to reimbursement or repayment. The following addresses each of these adjustments.

- A. Irrigation: Non-Reimbursable Abandoned Investigations. Irrigation Abandoned Investigations were funded through Reclamation appropriations. They include all costs associated with planning of irrigation features that did not result in construction. These costs have been allocated 100 percent to irrigation. CUPCA Section 201 (b) states "all amounts previously expended in planning and developing the projects and features described in this subsection including amounts previously expended for investigation of power features in the Bonneville Unit shall be considered non-reimbursable and non-returnable."

The water development projects and features that are "described in this subsection [Section 201 (b)]" are:

1. Mosida pumping plant, canals, and laterals;
2. Draining of Benjamin Slough;
3. Diking of Goshen or Provo Bays in Utah Lake;
4. Ute Indian Unit;

5. Leland Bench Development; and
6. All features of the Bonneville Unit, Central Utah Project not proposed and described in the 1988 Definite Plan Report.

Table 7-5: Determination of Non-Reimbursable Irrigation Abandoned Investigations reviews each line item that appears under Irrigation Abandoned Investigations and determines whether it is reimbursable under Section 201(b). The conclusion is that of the total Irrigation Abandoned Investigations costs, approximately \$9.0 million is non-reimbursable under Section 201(b).

- B. Power: Non-Reimbursable Discontinued Investigations. Discontinued Power Investigations were funded through Reclamation appropriations. They include costs associated with planning of power generation but not resulting in construction. These costs have been allocated 100 percent to power. These costs are also non-reimbursable under CUPCA Section 201(b). When the \$12.6 million in abandoned power investigations is deducted from the power net construction and IDC, the remaining amount subject to repayment is \$132.9 million.
- C. Irrigation: Pre-Authorization Investigations. These are non-reimbursable investigation costs funded from contributed funds, the Colorado River Development Fund, and the Reclamation Fund; they are non-reimbursable because they occurred before the project was authorized. They total \$733,000. When both the Pre-Authorization Investigations and the Non-Reimbursable Abandoned Investigations are deducted from the irrigation net construction and IDC, the remaining irrigation costs subject to repayment are \$299.0 million.
- D. M&I: Pre-Authorization Investigations. These are non-reimbursable investigation costs funded from contributed funds, the Colorado River Development Fund, and the Reclamation Fund; they are non-reimbursable because they occurred before the project was authorized. They total \$740,000.
- E. M&I: Section 206 of the Water and Energy Appropriations Act of 1986 (P.L. 100-563). Under Section 206 of the Water and Energy Appropriations Act of 1986, Congress provided the District with a credit toward its M&I repayment obligation of up to \$10.0 million, if certain construction progress had not been achieved by FY 1996. The credit was applied to the District's repayment obligation in FY 1997 – 2000. When the Pre-Authorization Investigations and the Section 206 credit amounts are deducted from the M&I net construction and IDC, the remaining M&I costs subject to repayment are \$1,094.4 million.

## **SUMMARY OF REPAYMENT CONTRACTS BETWEEN THE UNITED STATES AND THE DISTRICT**

- A. Existing Repayment Contracts. The District has entered into contracts for repayment of specified reimbursable federal costs including previously constructed facilities as well as those authorized by CUPCA for the Bonneville Unit. Table 7-6: Bonneville Unit Repayment Contracts lists these contracts.

- B. Development of Total Repayment Obligation. Contract No. 14-06-400-4286 (as amended), dated December 28, 1965, provided for repayment of \$130,673,000 of Bonneville Unit costs. Included were an irrigation obligation of \$16,400,000; and ad valorem tax revenue contribution of \$38,005,000; and a municipal and industrial water obligation of \$76,268,000. Under the contract, the sum of these costs could not exceed a 20 percent increase or a total of \$156,808,000. Subtracting the irrigation obligation leaves \$140,408,000 as the ceiling for municipal and industrial repayment. In 1981, the District agreed to contribute an additional \$10,000,000 to aid in construction of the Jordan Aqueduct System. This raised the M&I repayment ceiling to \$150,408,000.

In 1985, a special election was held by the District to determine if the voters would ratify a supplement to the 1965 repayment contract. The amount to be added to the repayment obligation for the M&I water users was \$335,000,000. This amount could be increased by 10 percent. The proposition passed by approximately a 3 to 1 margin, and the supplemental contract was signed on November 26, 1985.

In addition, on May 16, 1986, two contracts were signed to repay the costs of Jordan Aqueduct reaches 1 through 4 with the Jordan Valley Water Conservancy District, and the Metropolitan Water District of Salt Lake and Sandy. The combined repayment coverage of these two contracts is \$41,686,000.

Table 7-7: Repayment Obligation Associated with 1965 and 1985 Repayment Contracts provides a summary of the amount of the municipal and industrial water allocation covered by existing contracts.

The \$560,594,000 contract coverage applies only to the costs allocated to the 94,750 acre-feet of M&I water, as shown in Table 7-8: Water Supply Associated with 1965 and 1985 Repayment Contracts.

The remaining project M&I water is comprised of the 3,000 AF to be developed by UBRP and the 60,000 AF to be developed by the Utah Lake System (ULS). The delivery of the UBRP M&I water is covered by the 2001 water service contract (see above). The repayment obligation for the ULS M&I water is established under Contract No. 04-WC-40-120.

- C. Section 211 Deferral. Section 211 of CUPCA states: "Any amount allocated to municipal and industrial water in excess of the total maximum repayment obligation contained in repayment contracts dated December 28, 1965, and November 26, 1985, shall be deferred for as long as the District is not found to be in substantial non-compliance with the water management improvement program provided in section 207 and the stream flows provided in title III are maintained."

As shown in Table 7-8: Water Supply Associated with 1965 and 1985 Repayment Contracts, the water supply associated with the repayment contracts is 94,750 AF. And as shown in Table 7-7: Repayment Obligation Associated with 1965 and 1985 Repayment Contracts, the

repayment obligation associated with the 94,750 acre-feet of project M&I water is \$560,594,000. Under Section 211, any M&I repayment obligation associated with the 94,750 AF in excess of \$560,594,000 is deferred.

## IRRIGATION REPAYMENT

- A. **Irrigation Water Supply.** A summary of the irrigation water supply is presented in Table 7-9: Summary of Irrigation Water Supply. It is important to note the inclusion of 20,000 acre-feet of temporary irrigation water for south Utah County. For cost allocation purposes, the 30,000 acre-foot block to M&I water (from which this 20,000 acre-feet of temporary irrigation water is delivered) was divided between irrigation and M&I. This division was for cost allocation purposes only. For repayment purposes, the entire expected revenue from the delivery of 20,000 acre-feet of temporary irrigation water is included. (See Table 7-10: Repayment of Irrigation Cost).
- B. **Irrigation Repayment Obligation.** As noted above, the total amount allocated to irrigation (total construction and IDC costs) is adjusted in four ways to arrive at the irrigation repayment obligation. These adjustments include deductions for local cost share, non-reimbursable abandoned irrigation investigations, pre-project authorization funds, and IDC costs (which are non-reimbursable). The following describes the repayment of the remaining irrigation obligation.
1. **Irrigators' Obligation.** Under Federal Reclamation Law irrigation construction costs are reimbursable to the United States Treasury, but without interest. Costs associated with each block notice have a 50 year repayment period.

Of the irrigation repayment obligation, irrigators, according to CRSPA, are only obligated to repay that amount equal to their ability to pay, as determined by the Secretary of the Interior. In the 1964 DPR, this total repayment ability for the entire project was determined to be \$16,400,000. This amount was cited in the 1965 repayment contract and was the basis of amortization rates (irrigators' per-acre-foot ability to pay) presented in a letter from the USBR to CUWCD dated February 1, 1988.

A summary of irrigation repayment by each irrigation block is shown in Table 7-10: Repayment of Irrigation Costs. The amortization rates per acre-foot are from the 1988 USBR letter. The exception is the UBRP irrigation water. For UBRP, the amortization rates were taken from the UBRP Feasibility Study, dated October, 2001.

The per-acre-foot OM&R rates are calculated by dividing OM&R allocated to irrigation by the acre feet of irrigation water to be delivered. The OM&R for UBRP is different from the other areas because it is served from different facilities.

As noted above, the existing repayment contracts obligate the CUWCD to repay an irrigation repayment obligation of \$16,400,000. This amount was based on the 1964 DPR, which anticipated a larger irrigation water supply than will be developed. Under the current project plan, although irrigators will be assessed according to their full ability to

pay (per Reclamation Law), the total revenue generated will not reach \$16,400,000. The discrepancy between the District's irrigation repayment obligation and the Department of the Interior's ability to assess repayment is approximately \$6.5 million. This issue will be addressed in future repayment contracts actions.

2. Temporary Irrigation Water Supply. As noted above, the entire 20,000 acre-feet of irrigation water is included in Table 7-10. The availability of this water until approximately 2025 is expected to generate \$2.2 million.
3. Power Users' Obligation. Of the \$299.0 million irrigation repayment obligation (total construction costs less local costs share and adjustments), the District is obligated to repay \$16,400,000, based on the irrigators' ability to pay. Under CRSPA, the remaining amount (\$282.6 million) is to be paid from Utah's share of the apportioned revenues from Colorado River Storage Project power sales.

### MUNICIPAL AND INDUSTRIAL WATER REPAYMENT

- A. M&I Water Supply. A summary of the M&I water supply is presented in Table 7-11: Summary of M&I Water Supply.
- B. M&I Repayment Obligation. As noted above, the total amount allocated to M&I (total construction and IDC costs) is adjusted to arrive at the M&I repayment obligation. These adjustments are the deductions for local cost share, Section 206 of P.L. 100-563 construction progress credits, and pre-project authorization funds. The following describes the repayment of the remaining M&I obligation.

Under Section 5 (f) of the CRSPA, M&I construction costs and IDC are reimbursable at the project interest rate established at the outset of the project. The Bonneville Unit rate is 3.222 percent. The repayment period for M&I obligations is 40 years. Under the Water Supply Act of 1958, water users may elect to invoke a 10-year deferral and then begin payment on 40-year terms at the end of the deferral.

1. Repayment of M&I Costs under the 1965 and 1985 Repayment Contracts (94,750 AF). The portion of the M&I repayment obligation assigned to 94,750 AF is approximately \$657.3 million. The Section 211 deferral applies to this amount; hence, the District is not responsible for repayment of the entire amount but is obligated to repay \$560,594,000. The difference between the allocation to 94,750 AF and the obligation to repay is the amount of the deferral (approximately \$96.7 million).

On May 16, 1986, the United States and the District entered into two agreements (86-07-40-R0320 and 86-07-40-R0330) to prepay a portion of the repayment obligation associated with the Jordan Aqueduct. These payments totaled \$64,850,297. This credit to the District obligation reduces the amount subject to M&I repayment to \$495,743,703.

Based on a final net obligation of \$495,743,703, the average cost of the 94,750 AF on a per-acre-foot basis is \$5232.12. The annual cost per acre-foot is \$227.23 under a 40-year amortization and \$205.39 under a 50-year amortization.

If not for the Section 211 deferral and the credit for Jordan Aqueduct prepayment, the average cost for the 94,750 AF would be the same as the average cost for the 60,000 AF of ULS M&I water--\$6,937.58 per acre-foot or \$301.29 per acre-foot per year (when amortized over 40 years at 3.222 percent interest) and \$272.33 per acre-foot per year (when amortized over 50 years at the same rate).

2. Repayment of ULS M&I Costs (60,000 AF). The portion of the M&I repayment obligation assigned to 60,000 AF is approximately \$416.3 million. Because the ULS M&I water supply is not associated with the 1965 and 1985 repayment contracts, the Section 211 deferral does not apply; as a result, the future repayment contract for the ULS water supply will obligate the District to repay the full amount.

Based on a final net obligation of approximately \$416.3 million, the average cost of the 60,000 AF on a per-acre-foot basis is \$6,937.58. The annual cost per acre-foot is \$301.29 under a 40-year amortization and \$272.33 under a 50-year amortization.

3. Repayment of UBRP M&I Costs (3,000 AF). The M&I water developed by UBRP will be provided under the water service contract (Supplement No. 2 to 14-06-400-4286, dated November 15, 2001). The water service contract contains provisions under which the obligation can be converted to a repayment obligation. If the District elects to convert its water service contract obligation to a repayment obligation, that conversion would likely take place on the following terms.

The portion of the M&I repayment obligation assigned to 3,000 AF is approximately \$20.8 million. Because the UBRP M&I water supply is not associated with the 1965 and 1985 repayment contracts, the Section 211 deferral would not apply; as a result, the repayment obligation would be based on the full amount (with the potential for crediting of funds remitted under the water service agreement).

Based on a final net obligation of approximately \$20.8 million and assuming no water service contract payments, the average cost of the 3,000 AF on a per-acre-foot basis is \$6,937.58. The annual cost per acre-foot is \$301.29 under a 40-year amortization and \$272.33 under a 50-year amortization.

- C. OM&R Assessment. Table 7-12: Summary of M&I Repayment also shows average annual OM&R charges per acre foot. The estimated annual OM&R charge is estimated to be approximately \$7.21 per acre-foot. The annual OM&R charge is established by the District for each OM&R year and will vary depending on actual expenses incurred.

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**HYDROPOWER REPAYMENT**

- A. Authorization. Hydropower plants have been included in the project plan in accordance with Section 202 (c) of CUPCA.
- B. Power Cost Allocation Method. As described in Chapter 6, more than 94,000 AF will flow through the Sixth Water and Upper Diamond Fork power plants. If 94,000 AF were to be traced back through the system to the Strawberry Aqueduct and Collection System (as the use of facilities [UOF] approach requires), the costs allocated to power would exceed \$540.3 million, making power infeasible. For this reason, a modified UOF approach has been applied under which the costs allocated to power have been limited to the total expected offsets to the power allocation from all sources. The offsets to be applied to power costs are: sales of power generated, local cost share, the lease of power privilege (LOPP) at Jordanelle, and non-reimbursable power investigations.
- C. Power Repayment Obligation. Table 7-13: Summary of Power Repayment show the total allocation to power and the application of adjustments and offsets to power repayment. The total amount allocated to power (total construction and IDC costs) under the modified UOF method is approximately \$161.0 million. When deductions are made for local cost share and abandoned power investigations, the remaining power repayment obligation is approximately \$132.9 million.

The amortization of the net repayment obligation (over 50 years at 3.222 percent interest) results in an annual payment of approximately \$5.4 million. The Jordanelle LOPP is expected to provide average annual revenue of approximately \$115,000, leaving \$5.3 million to be provided from sales of the power generated at the Upper Diamond Fork and Sixth Water power plants. The power will be marketed at approximately 45 mils/kwh. Of the 45 mils/kwh, 13.1 mils/kwh is estimated to be required for operation, maintenance, and replacement of project facilities. This leaves approximately 31.9 mils/kwh to be applied to repayment. At 31.9 mils/kwh, the revenue generated is expected to equal \$5.3 million.

A contract among the Department of the Interior, the District, and the Western Area Power Administration will establish the following:

- the District will repay to the United States the net cost allocated to power in 50 annual installments;
- the District will operate and maintain the power plants;
- the Western Area Power Administration will market the power;
- from power proceeds, Western will reimburse the District for operation and maintenance; and
- from power proceeds, Western will annually remit to Reclamation an amount equal to the District's annual repayment obligation.

Western has committed to initiate a process whereby it would market the power by one or more of the following methods: integrating the power into its Salt Lake City – Integrated Projects (SLCA-IP) and delivering it to existing firm-power customers; marketing it to a

subset of the SLCA-IP firm-power customers who are interested in receiving additional hydropower from Western; allocating the power to existing and/or new firm-power preference customers separately from the SLCA-IP; marketing the power to Federal facilities and other preference customers who have requirements or interests in receiving renewable resources; or marketing the power to preference and non-preference entities using some combination of short- and/or long-term power sales contracts.

- D. OM&R Assessment. Table 7-13: Summary of Power Repayment shows total estimated annual OM&R charges associated with the Upper Diamond Fork and Sixth Water Powerplants. The estimated annual OM&R charge is based on a composite OM&R rate of 13.1 mils/kwh for the two plants. The annual OM&R charge will be established by the District for each OM&R year and will vary depending on actual expenses incurred.

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**TABLE 7-1:  
Adjustment of IDC Costs for Repayment  
(Section 5 and Section 8)**

Utah Lake Salinity Control	\$ -	\$ -
Diamond Fork System 202(a)(6)	\$ 17,524,413	\$ 18,068,370
UBRP 203	\$ 1,975,000	\$ 2,036,304
Local Development Options 206	\$ -	\$ -
Studies, Reports, Coordinated Operations	\$ -	\$ -
Water Conservation Credit Program 207	\$ -	\$ -
<b>Title II Sub-Total:</b>	<b>\$ 34,011,019</b>	<b>\$ 35,066,721</b>
<b>Title III</b>		
Lease of Daniels Creek Water Rights	\$ -	\$ -
<b>Title V</b>		
Ute Indian Water Rights Settlement	\$ -	\$ -
Indian Ford Exchange	\$ -	\$ -
<b>TOTAL CUPCA SECTION 5</b>	<b>\$ 34,011,019</b>	<b>\$ 35,066,721</b>
<b>Fish and Wildlife</b>		
<b>Section 201</b>		
<b>Title II</b>		
Spanish Fork Flow Control Structure		
Spanish Fork Pipeline		
Spanish Fork PRC Pipeline		
Provo River Studies		
Uinta Basin Replacement Project		
Diversion on Duchesne + Strawberry R.		
Title II Sub-Total:		
<b>Title III</b>		
Spanish Fork Flow Control Structure		
Spanish Fork Pipeline		
Spanish Fork PRC Pipeline		
Other Title III		
Title III Sub-Total:		\$ -
<b>Title IV Mitigation and Conservation</b>		\$ -
<b>Total Section 8 Fish and Wildlife</b>	\$ -	\$ -
<b>Title III Recreation</b>		\$ -
<b>TOTAL CUPCA SECTION 8</b>		\$ -
<b>TOTAL CUPCA SECTION 5 &amp; 8</b>	<b>\$ 34,011,019</b>	<b>\$ 35,066,721</b>
<b>TOTAL SECTION 5 (USBR &amp; CUPCA)</b>	<b>\$ 345,421,792</b>	<b>\$ 356,143,842</b>
<b>TOTAL SECTION 8 (USBR &amp; CUPCA)</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL BONNEVILLE UNIT</b>	<b>\$ 345,421,792</b>	<b>\$ 356,143,842</b>

**TABLE 7-1:  
Adjustment of IDC Costs for Repayment  
(Section 5 and Section 8)**

<b>STARVATION COLLECTION SYSTEM</b>		
Starvation Dam	\$ 19,457,314	\$ 20,061,279
Duchesne Canal Rehab.	\$ -	\$ -
Taylor Canal Drains	\$ -	\$ -
<b>Subtotal</b>	<b>\$ 19,457,314</b>	<b>\$ 20,061,279</b>
<b>STRAWBERRY AQUEDUCT &amp; COLLECT</b>		
Upper Stillwater Dam	\$ 46,848,947	\$ 48,303,162
Current Creek Dam	\$ 10,227,481	\$ 10,544,947
Soldier Creek Dam	\$ 7,223,826	\$ 7,448,057
Strawberry Aqueduct & Collection System	\$ 64,959,223	\$ 66,975,590
<b>Subtotal</b>	<b>\$ 129,259,477</b>	<b>\$ 133,271,756</b>
<b>M&amp;I SYSTEM</b>		
Jordanelle Dam	\$ 102,636,471	\$ 105,822,358
Upper Provo River Reservoirs	\$ -	\$ -
Jordan aqueduct System	\$ 23,540,420	\$ 24,271,127
Jacob Welby Water Rights	\$ -	\$ -
<b>Subtotal</b>	<b>\$ 126,176,891</b>	<b>\$ 130,093,485</b>
<b>DIAMOND FORK SYSTEM</b>		
Syar Tunnel	\$ 20,607,713	\$ 21,247,387
Sixth Water Aqueduct	\$ 10,117,691	\$ 10,431,749
Discontinued Power Investigations	\$ -	\$ -
Diamond Fork Pipeline	\$ 5,791,688	\$ 5,971,465
<b>Subtotal</b>	<b>\$ 36,517,092</b>	<b>\$ 37,650,601</b>
<b>OTHER COSTS</b>		
Irrigation Abandoned Investigations	\$ -	\$ -
Service Facilities	\$ -	\$ -
Utah Lake Water Rights	\$ -	\$ -
O&M Not Associated with Features	\$ -	\$ -
<b>Subtotal</b>	<b>\$ -</b>	<b>\$ -</b>
<b>T TOTAL USBR SECTION 5 COSTS</b>	<b>\$ 311,410,774</b>	<b>\$ 321,077,121</b>
Recreation Facilities	\$ -	\$ -
Fish and Wildlife Facilities	\$ -	\$ -
<b>TOTAL USBR SECTION 8</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL USBR SECTIONS 5&amp;8</b>	<b>\$ 311,410,774</b>	<b>\$ 321,077,121</b>
<b>Title II</b>		
Utah Lake System		
Planning and NEPA	\$ -	\$ -
Spanish Fork Flow Control Structure	\$ -	\$ -
Spanish Fork Canyon Pipeline	\$ 2,343,896	\$ 2,416,651
Spanish Fork Provo Reservoir Canal Pipeline	\$ 4,847,258	\$ 4,997,717
Spanish Fork - Santaquin Pipeline	\$ 4,192,615	\$ 4,322,754
Mapleton Springville Lateral Pipeline	\$ 440,309	\$ 453,977
Santaquin - Mona Pipeline	\$ 282,463	\$ 291,231
North Utah County 207 Projects	\$ -	\$ -
Sixth water Power Plant	\$ 1,316,815	\$ 1,357,689
Upper Diamond Fork Power Plant	\$ 105,673	\$ 108,953
<b>Subtotal ULS Features</b>	<b>\$ 13,529,030</b>	<b>\$ 13,948,971</b>
Conjunctive Use	\$ -	\$ -
Wasatch County Efficiency Study	\$ -	\$ -
Wasatch County Efficiency Project	\$ 982,577	\$ 1,013,076

**TABLE 7-2:  
Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs  
(Section 5 Construction)**

FEATURE	PROJECT PURPOSES														Totals					
	Flood Control		Highway Improvement		Power		Fish and Wildlife			Irrigation		M&I		Remaining Joint						
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W (%)	F&W (\$)	Instream Flow (%)	Instream Flow (\$)	F&W Sub-Total (%)	F&W Sub-Total (\$)	Irrigation (%)	Irrigation (\$)		M&I (%)	M&I (\$)	Remaining Joint (%)	Remaining Joint (\$)	
<b>Starvation Dam and Reservoir Total Cost</b>																			\$22,536,505	
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	15.80%	\$1,423,000			18.30%	\$1,647,836	65.91%	\$5,936,147	84.20%	\$7,583,983								\$9,006,983
Reimbursable Costs					7.27%	\$983,796							58.06%	\$7,855,224	34.67%	\$4,690,502				\$13,529,522
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>7.27%</b>	<b>\$983,796</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>58.06%</b>	<b>\$7,855,224</b>	<b>34.67%</b>	<b>\$4,690,502</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$13,529,522</b>
<b>Duchesne Canal Rehabilitation</b>																				\$37,883,920
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0
Reimbursable Costs					0.00%	\$0							100.00%	\$37,883,920	0.00%	\$0				\$37,883,920
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$37,883,920</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$37,883,920</b>
<b>Taylor Canal Drains</b>																				\$1,798,272
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0
Reimbursable Costs					0.00%	\$0							100.00%	\$1,798,272	0.00%	\$0				\$1,798,272
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$1,798,272</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$1,798,272</b>
<b>Upper Stillwater Dam and Reservoir</b>																				\$247,353,876
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			5.42%	\$6,457,234	94.58%	\$112,632,313	100.00%	\$119,089,547								\$119,089,547
Reimbursable Costs					14.11%	\$18,092,815							18.51%	\$23,741,726	67.38%	\$86,429,789				\$128,264,329
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>14.11%</b>	<b>\$18,092,815</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>18.51%</b>	<b>\$23,741,726</b>	<b>67.38%</b>	<b>\$86,429,789</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$128,264,329</b>
<b>Current Creek Dam and Reservoir</b>																				\$30,303,928
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	9.70%	\$1,481,000			3.77%	\$575,388	86.53%	\$13,213,987	90.30%	\$13,789,375								\$15,270,375
Reimbursable Costs					14.02%	\$2,108,267							18.53%	\$2,785,372	67.45%	\$10,139,915				\$15,033,553
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>14.02%</b>	<b>\$2,108,267</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>18.53%</b>	<b>\$2,785,372</b>	<b>67.45%</b>	<b>\$10,139,915</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$15,033,553</b>
<b>Soldier Creek Dam and Reservoir</b>																				\$51,708,000
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	3.80%	\$750,000			5.62%	\$1,109,615	90.57%	\$17,867,327	96.20%	\$18,976,943								\$19,726,943
Reimbursable Costs					13.22%	\$4,227,721							18.75%	\$5,997,893	68.03%	\$21,755,443				\$31,981,057
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>13.22%</b>	<b>\$4,227,721</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>18.75%</b>	<b>\$5,997,893</b>	<b>68.03%</b>	<b>\$21,755,443</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$31,981,057</b>
<b>Strawberry Aqueduct + Collection System</b>																				\$266,036,397
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			1.41%	\$1,771,193	98.59%	\$123,754,826	100.00%	\$125,526,019								\$125,526,019
Reimbursable Costs					13.85%	\$19,459,356							18.57%	\$26,086,236	67.59%	\$94,964,785				\$140,510,378
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>13.85%</b>	<b>\$19,459,356</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>18.57%</b>	<b>\$26,086,236</b>	<b>67.59%</b>	<b>\$94,964,785</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$140,510,378</b>
<b>Jordanelle Dam and Reservoir</b>																				\$356,705,956
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	18.65%	\$39,555,903	29.45%	\$62,461,000			6.54%	\$13,861,693	45.36%	\$96,200,878	51.90%	\$110,062,570								\$212,079,474
Reimbursable Costs					0.00%	\$0							16.98%	\$24,560,850	83.02%	\$120,065,632				\$144,626,482
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>16.98%</b>	<b>\$24,560,850</b>	<b>83.02%</b>	<b>\$120,065,632</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$144,626,482</b>
<b>Jordan Aqueduct System</b>																				\$97,923,050
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0
Reimbursable Costs					0.00%	\$0							0.00%	\$0	100.00%	\$97,923,050				\$97,923,050
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$97,923,050</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$97,923,050</b>
<b>Jacob Welby Water Rights</b>																				\$66,865
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0
Reimbursable Costs					0.00%	\$0							0.00%	\$0	100.00%	\$66,865				\$66,865
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$66,865</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$66,865</b>

**TABLE 7-2:  
Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs  
(Section 5 Construction)**

FEATURE	PROJECT PURPOSES														Totals			
	Flood Control		Highway Improvement		Power		Fish and Wildlife		Irrigation		M&I		Remaining Joint					
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W (%)	F&W (\$)	Instream Flow (%)	Instream Flow (\$)	F&W Sub-Total (%)	F&W Sub-Total (\$)	Irrigation (%)	Irrigation (\$)		(%)	(\$)	
<b>Upper Provo River Reservoirs</b>																	\$7,789,326	
Remaining Joint Costs															0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			98.87%	\$6,919,070	1.13%	\$79,114	100.00%	\$6,998,184					100.00%	\$6,998,184
Reimbursable Costs					0.00%	\$0					100.00%	\$791,142	0.00%	\$0			100.00%	\$791,142
Local Cost Share	0.00%	\$0			0	\$0					0	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$791,142</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$791,142</b>
<b>Syar Tunnel</b>																	\$76,405,796	
Remaining Joint Costs															0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			3.03%	\$688,479	96.97%	\$22,015,263	100.00%	\$22,703,743					100.00%	\$22,703,743
Reimbursable Costs					12.65%	\$6,791,803					18.88%	\$10,139,963	68.47%	\$36,770,288			100.00%	\$53,702,053
Local Cost Share	0.00%	\$0			0	\$0					0	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>12.65%</b>	<b>\$6,791,803</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>18.88%</b>	<b>\$10,139,963</b>	<b>68.47%</b>	<b>\$36,770,288</b>	<b>0.00%</b>	<b>\$53,702,053</b>
<b>Sixth Water Aqueduct</b>																	\$35,664,601	
Remaining Joint Costs															0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			3.03%	\$321,368	96.97%	\$10,276,257	100.00%	\$10,597,624					100.00%	\$10,597,624
Reimbursable Costs					12.65%	\$3,170,269					18.88%	\$4,733,119	68.47%	\$17,163,588			100.00%	\$25,066,977
Local Cost Share	0.00%	\$0			0	\$0					0	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>12.65%</b>	<b>\$3,170,269</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>18.88%</b>	<b>\$4,733,119</b>	<b>68.47%</b>	<b>\$17,163,588</b>	<b>0.00%</b>	<b>\$25,066,977</b>
<b>Discontinued Power Investigations</b>																	\$12,595,512	
Remaining Joint Costs															0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0					100.00%	\$12,595,512
Reimbursable Costs					100.00%	\$12,595,512					0.00%	\$0	0.00%	\$0			100.00%	\$12,595,512
Local Cost Share	0.00%	\$0			0	\$0					0	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$12,595,512</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$12,595,512</b>
<b>Diamond Fork Pipeline</b>																	\$2,117,315	
Remaining Joint Costs															0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			3.03%	\$20,940	96.97%	\$669,596	100.00%	\$690,536					100.00%	\$690,536
Reimbursable Costs					0.00%	\$0					21.62%	\$308,408	78.38%	\$1,118,371			100.00%	\$1,426,779
Local Cost Share	0.00%	\$0			0	\$0					0	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>21.62%</b>	<b>\$308,408</b>	<b>78.38%</b>	<b>\$1,118,371</b>	<b>0.00%</b>	<b>\$1,426,779</b>
<b>Irrigation Abandoned Investigations</b>																	\$31,432,520	
Remaining Joint Costs															0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0					100.00%	\$31,432,520
Reimbursable Costs					0.00%	\$0					100.00%	\$31,432,520	0.00%	\$0			100.00%	\$31,432,520
Local Cost Share	0.00%	\$0			0	\$0					0	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$31,432,520</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$31,432,520</b>
<b>Service Facilities</b>																	\$7,953,111	
Remaining Joint Costs															1	\$7,953,111	100.00%	\$7,953,111
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0					0.00%	\$0
Reimbursable Costs					0.00%	\$0					0.00%	\$0	0.00%	\$0			0.00%	\$0
Local Cost Share	0.00%	\$0			0	\$0					0	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$7,953,111</b>	<b>0.00%</b>	<b>\$0</b>
<b>Utah Lake Water Rights</b>																	\$71,036	
Remaining Joint Costs															1	\$71,036	100.00%	\$71,036
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0					0.00%	\$0
Reimbursable Costs					0.00%	\$0					0.00%	\$0	0.00%	\$0			0.00%	\$0
Local Cost Share	0.00%	\$0			0	\$0					0	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$71,036</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total USBR RJC:</b>																	\$8,024,147	
Total USBR Non-Reimbursable Costs	7.30%	\$39,555,903	12.21%	\$66,115,000	0.00%	\$0	6.16%	\$33,372,816	74.33%	\$402,645,708	80.49%	\$436,018,524	0.00%	\$0	0.00%	\$0	100.00%	\$541,689,427
Total USBR Reimbursable Costs	0.00%	\$0	0.00%	\$0	9.15%	\$67,429,538	0.00%	\$0	0.00%	\$0	0.00%	\$0	24.18%	\$178,114,645	66.67%	\$491,088,229	0.00%	\$0
Total USBR Local Cost Share	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Total Eligible for Repayment	0.00%	\$0	0.00%	\$0	9.15%	\$67,429,538	0.00%	\$0	0.00%	\$0	0.00%	\$0	24.18%	\$178,114,645	66.67%	\$491,088,229	1.09%	\$8,024,147
<b>Total USBR Sec 5 Costs:</b>	<b>3.08%</b>	<b>\$39,555,903</b>	<b>5.14%</b>	<b>\$66,115,000</b>	<b>5.24%</b>	<b>\$67,429,538</b>	<b>2.59%</b>	<b>\$33,372,816</b>	<b>31.30%</b>	<b>\$402,645,708</b>	<b>33.90%</b>	<b>\$436,018,524</b>	<b>13.85%</b>	<b>\$178,114,645</b>	<b>38.18%</b>	<b>\$491,088,229</b>	<b>0.62%</b>	<b>\$8,024,147</b>
<b>ULS Planning and NEPA</b>																	\$32,659,121	
Remaining Joint Costs															0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			32.52%	\$1,782,091	67.48%	\$3,698,562	100.00%	\$5,480,653					100.00%	\$5,480,653
Reimbursable Costs					0.00%	\$0					6.66%	\$1,810,791	93.34%	\$25,367,677			100.00%	\$27,178,468

**TABLE 7-2:  
Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs  
(Section 5 Construction)**

FEATURE	PROJECT PURPOSES																			
	Flood Control		Highway Improvement		Power		Fish and Wildlife			Irrigation		M&I		Remaining Joint		Totals				
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W (%)	F&W (\$)	Instream Flow (%)	Instream Flow (\$)	F&W Sub-Total (%)	F&W Sub-Total (\$)	Irrigation (%)	Irrigation (\$)	M&I (%)	M&I (\$)	Remaining Joint (%)	Remaining Joint (\$)	Totals (%)	Totals (\$)
Local Cost Share	35.00%				0.00%	\$0							6.66%	\$633,777	93.34%	\$8,878,687				\$9,512,464
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	6.66%	\$1,177,014	93.34%	\$16,488,990	0.00%	\$0	100.00%	\$17,666,004
<b>Spanish Fork Flow Control Structure</b>																				\$6,269,158
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			3.37%	\$47,778	96.63%	\$1,369,934	100.00%	\$1,417,712								\$1,417,712
Reimbursable Costs					0.00%	\$0							22.20%	\$1,076,838	77.80%	\$3,774,608			100.00%	\$4,851,446
Local Cost Share	35.00%				0.00%	\$0							22.20%	\$376,893	77.80%	\$1,321,113				\$1,698,006
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	22.20%	\$699,945	77.80%	\$2,453,495	0.00%	\$0	100.00%	\$3,153,440
<b>Spanish Fork Canyon Pipeline</b>																				\$60,003,743
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			3.37%	\$484,951	96.63%	\$13,904,876	100.00%	\$14,389,827								\$14,389,827
Reimbursable Costs					0.00%	\$0							16.01%	\$7,301,511	83.99%	\$38,312,405			100.00%	\$45,613,916
Local Cost Share	35.00%				0.00%	\$0							16.01%	\$2,555,529	83.99%	\$13,409,342				\$15,964,870
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	16.01%	\$4,745,982	83.99%	\$24,903,063	0.00%	\$0	100.00%	\$29,649,045
<b>Spanish Fork Provo Reservoir Canal Pipe</b>																				\$91,242,507
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			7.41%	\$982,731	92.59%	\$12,284,908	100.00%	\$13,267,639								\$13,267,639
Reimbursable Costs					0.00%	\$0							4.02%	\$3,136,435	95.98%	\$74,838,434			100.00%	\$77,974,869
Local Cost Share	35.00%				0.00%	\$0							4.02%	\$1,097,752	95.98%	\$26,193,452				\$27,291,204
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	4.02%	\$2,038,683	95.98%	\$48,644,982	0.00%	\$0	100.00%	\$50,683,665
<b>Spanish Fork Santaquin Pipeline</b>																				\$99,380,508
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0
Reimbursable Costs					0.00%	\$0							0.00%	\$0	100.00%	\$99,380,508			100.00%	\$99,380,508
Local Cost Share	35.00%				0.00%	\$0							0.00%	\$0	100.00%	\$34,783,178				\$34,783,178
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	100.00%	\$64,597,330	0.00%	\$0	100.00%	\$64,597,330
<b>Mapleton Springville Pipeline</b>																				\$28,179,804
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			1.62%	\$222,884	98.38%	\$13,566,470	100.00%	\$13,789,354								\$13,789,354
Reimbursable Costs					0.00%	\$0							59.90%	\$8,620,320	40.10%	\$5,770,130			100.00%	\$14,390,450
Local Cost Share	35.00%				0.00%	\$0							59.90%	\$3,017,112	40.10%	\$2,019,545				\$5,036,657
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	59.90%	\$5,603,208	40.10%	\$3,750,584	0.00%	\$0	100.00%	\$9,353,792
<b>Santaquin Mona Pipeline</b>																				\$18,077,632
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			100.00%	\$18,077,632	0.00%	\$0	100.00%	\$18,077,632								\$18,077,632
Reimbursable Costs					0.00%	\$0							0.00%	\$0	0.00%	\$0			0.00%	\$0
Local Cost Share	35.00%				0.00%	\$0							0.00%	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
<b>North Utah County 207 Project</b>																				\$60,000,000
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0
Reimbursable Costs					0.00%	\$0							0.00%	\$0	100.00%	\$60,000,000			100.00%	\$60,000,000
Local Cost Share	35.00%				0.00%	\$0							0.00%	\$0	100.00%	\$21,000,000				\$21,000,000
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	100.00%	\$39,000,000	0.00%	\$0	100.00%	\$39,000,000
<b>Sixth Water Power Plant</b>																				\$33,830,454
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0
Reimbursable Costs					100.00%	\$33,830,454							0.00%	\$0	0.00%	\$0			100.00%	\$33,830,454
Local Cost Share	35.00%				100.00%	\$11,840,659							0.00%	\$0	0.00%	\$0				\$11,840,659
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	100.00%	\$21,989,795	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	100.00%	\$21,989,795
<b>Upper Diamond Fork Power Plant</b>																				\$6,793,073
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0
Reimbursable Costs					100.00%	\$6,793,073							0.00%	\$0	0.00%	\$0			100.00%	\$6,793,073
Local Cost Share	35.00%				100.00%	\$2,377,576							0.00%	\$0	0.00%	\$0				\$2,377,576
<b>Amount Eligible for Repayment</b>	0.00%	\$0	0.00%	\$0	100.00%	\$4,415,497	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	100.00%	\$4,415,497
<b>Conjunctive Use</b>																				\$19,854,000
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0								\$0

**TABLE 7-2:  
Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs  
(Section 5 Construction)**

FEATURE	PROJECT PURPOSES														Totals						
	Flood Control		Highway Improvement		Power		Fish and Wildlife			Irrigation		M&I		Remaining Joint							
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W (%)	F&W (\$)	Instream Flow (%)	Instream Flow (\$)	F&W Sub-Total (%)	F&W Sub-Total (\$)	Irrigation (%)	Irrigation (\$)		M&I (%)	M&I (\$)	Remaining Joint (%)	Remaining Joint (\$)		
Reimbursable Costs					0.00%	\$0							0.00%	\$0	100.00%	\$19,854,000			100.00%	\$19,854,000	
Local Cost Share	35.00%				0.00%	\$0							0.00%	\$0	100.00%	\$6,948,900				\$6,948,900	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	100.00%	\$12,905,100	0.00%	\$0	100.00%	\$12,905,100		
<b>Wasatch County Efficiency Study</b>																				\$1,092,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			100.00%	\$207,480	0.00%	\$0	100.00%	\$207,480							\$207,480	
Reimbursable Costs					0.00%	\$0							81.48%	\$720,720	18.52%	\$163,800			100.00%	\$884,520	
Local Cost Share	50.00%				0.00%	\$0							81.48%	\$360,360	18.52%	\$81,900				\$442,260	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	81.48%	\$360,360	18.52%	\$81,900	0.00%	\$0	100.00%	\$442,260
<b>WCWEP</b>																				\$18,497,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			100.00%	\$3,514,430	0.00%	\$0	100.00%	\$3,514,430							\$3,514,430	
Reimbursable Costs					0.00%	\$0							81.48%	\$12,208,020	18.52%	\$2,774,550			100.00%	\$14,982,570	
Local Cost Share	35.00%				0.00%	\$0							81.48%	\$4,272,807	18.52%	\$971,093				\$5,243,900	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	81.48%	\$7,935,213	18.52%	\$1,803,458	0.00%	\$0	100.00%	\$9,738,671
<b>Utah Lake Salinity Control</b>																				\$2,130,000	
Remaining Joint Costs																	1	\$2,130,000	100.00%	\$2,130,000	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0							\$0	
Reimbursable Costs					0.00%	\$0							0.00%	\$0	0.00%	\$0			0.00%	\$0	
Local Cost Share	50.00%				0.00%	\$0							0.00%	\$0	0.00%	\$0				\$0	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	#####	\$2,130,000	#####	\$0
<b>Diamond Fork System</b>																				\$147,574,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			3.03%	\$1,329,764	96.97%	\$42,521,388	100.00%	\$43,851,152							\$43,851,152	
Reimbursable Costs					12.65%	\$13,118,029							18.88%	\$19,584,835	68.47%	\$71,019,984			100.00%	\$103,722,848	
Local Cost Share	5.1800%				12.65%	\$679,514							18.88%	\$1,014,494	68.47%	\$3,678,835				\$5,372,844	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	12.65%	\$12,438,515	0.00%	\$0	0.00%	\$0	0.00%	\$0	18.88%	\$18,570,340	68.47%	\$67,341,149	0.00%	\$0	100.00%	\$98,350,005
<b>Uinta Basin Replacement Project</b>																				\$63,825,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			0.00%	\$0	100.00%	\$32,135,888	100.00%	\$32,135,888							\$32,135,888	
Reimbursable Costs					0.00%	\$0							45.46%	\$14,405,303	54.54%	\$17,283,810			100.00%	\$31,689,113	
Local Cost Share	35.00%				0.00%	\$0							45.46%	\$5,041,856	54.54%	\$6,049,334				\$11,091,189	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	45.46%	\$9,363,447	54.54%	\$11,234,477	0.00%	\$0	100.00%	\$20,597,923
<b>Local Development</b>																				\$10,943,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0							\$0	
Reimbursable Costs					0.00%	\$0							40.00%	\$4,377,200	60.00%	\$6,565,800			100.00%	\$10,943,000	
Local Cost Share	35.00%				0.00%	\$0							40.00%	\$1,532,020	60.00%	\$2,298,030				\$3,830,050	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	40.00%	\$2,845,180	60.00%	\$4,267,770	0.00%	\$0	100.00%	\$7,112,950
<b>Studies, Reports, Coordinated Operations</b>																				\$6,632,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0							\$0	
Reimbursable Costs					0.00%	\$0							40.00%	\$2,652,800	60.00%	\$3,979,200			100.00%	\$6,632,000	
Local Cost Share	35.00%				0.00%	\$0							40.00%	\$928,480	60.00%	\$1,392,720				\$2,321,200	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	40.00%	\$1,724,320	60.00%	\$2,586,480	0.00%	\$0	100.00%	\$4,310,800
<b>Water Conservation Credit Program</b>																				\$180,198,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0							\$0	
Reimbursable Costs					0.00%	\$0							40.00%	\$72,079,200	60.00%	\$108,118,800			100.00%	\$180,198,000	
Local Cost Share	35.00%				0.00%	\$0							40.00%	\$25,227,720	60.00%	\$37,841,580				\$63,069,300	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	40.00%	\$46,851,480	60.00%	\$70,277,220	0.00%	\$0	100.00%	\$117,128,700
<b>Lease of Daniels Creek Water Rights</b>																				\$8,595,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	
Non-Reimbursable Costs		0.00%	\$0	0.00%	\$0			100.00%	\$1,633,050	0.00%	\$0	100.00%	\$1,633,050							\$1,633,050	
Reimbursable Costs					0.00%	\$0							81.48%	\$5,672,700	18.52%	\$1,289,250			100.00%	\$6,961,950	
Local Cost Share	35.00%				0.00%	\$0							81.48%	\$1,985,445	18.52%	\$451,238				\$2,436,683	
<b>Amount Eligible for Repayment</b>		0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	81.48%	\$3,687,255	18.52%	\$838,013	0.00%	\$0	100.00%	\$4,525,268
<b>Title V</b>																				\$240,034,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0	

**TABLE 7-2:  
Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs  
(Section 5 Construction)**

FEATURE	PROJECT PURPOSES																Totals			
	Flood Control		Highway Improvement		Power		Fish and Wildlife				Irrigation		M&I		Remaining Joint					
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W		Instream Flow		F&W Sub-Total		Irrigation		(%)	(\$)				
						(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)			
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0				1.41%	\$1,598,077	98.59%	\$111,659,029	100.00%	\$113,257,106					\$113,257,106		
Reimbursable Costs					13.85%	\$17,557,399							18.57%	\$23,536,568	67.59%	\$85,682,927		\$126,776,894		
Local Cost Share	0.00%				0.00%	\$0							0.00%	\$0	0.00%	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>13.85%</b>	<b>\$17,557,399</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>18.57%</b>	<b>\$23,536,568</b>	<b>67.59%</b>	<b>\$85,682,927</b>	<b>0.00%</b>	<b>\$126,776,894</b>		
<b>Total Remaining Joint Costs:</b>																100.00%	\$2,130,000	100.00%	\$2,130,000	
Total Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0	0.00%	\$0	11.45%	\$29,880,868	88.55%	\$231,141,054	100.00%	\$261,021,923	0.00%	\$0	0.00%	\$0	0.00%	\$0	\$261,021,923	
Total Reimbursable Costs	0.00%	\$0	0.00%	\$0	8.17%	\$71,298,955	0.00%	\$0	0.00%	\$0	0.00%	\$0	20.30%	\$177,183,240	71.53%	\$624,175,883	0.00%	\$0	\$872,658,078	
Total Local Cost Share	0.00%	\$0	0.00%	\$0	6.47%	\$14,897,748	0.00%	\$0	0.00%	\$0	0.00%	\$0	20.87%	\$48,044,245	72.66%	\$167,318,945	0.00%	\$0	\$230,260,939	
Total Eligible for Repayment	0.00%	\$0	0.00%	\$0	8.78%	\$56,401,207	0.00%	\$0	0.00%	\$0	0.00%	\$0	20.10%	\$129,138,994	71.12%	\$456,856,938	0.00%	\$0	\$642,397,139	
<b>Total CUPCA Sec 5 Costs:</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>6.28%</b>	<b>\$71,298,955</b>	<b>2.63%</b>	<b>\$29,880,868</b>	<b>20.35%</b>	<b>\$231,141,054</b>	<b>22.98%</b>	<b>\$261,021,923</b>	<b>15.60%</b>	<b>\$177,183,240</b>	<b>54.95%</b>	<b>\$624,175,883</b>	<b>0.19%</b>	<b>\$2,130,000</b>	<b>100.00%</b>	<b>\$1,135,810,000</b>
<b>Indian Ford Exchange</b>																			\$11,044,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0							\$0	
Reimbursable Costs					0.00%	\$0							0.00%	\$0	100.00%	\$11,044,000			100.00%	\$11,044,000
Local Cost Share	0.00%				0.00%	\$0							0.00%	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$11,044,000</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$11,044,000</b>
<b>USBR Remaining Joint Costs</b>																			\$8,024,147	
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	1.78%	\$143,090	0.00%	\$0			2.85%	\$228,814	28.57%	\$2,292,666	31.42%	\$2,521,481							\$2,664,571	
Reimbursable Costs					0.00%	\$0							16.02%	\$1,285,258	50.78%	\$4,074,318			66.79%	\$5,359,576
Local Cost Share	0.00%				0.00%	\$0							0.00%	\$0	0.00%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>23.98%</b>	<b>\$1,285,258</b>	<b>76.02%</b>	<b>\$4,074,318</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$5,359,576</b>
<b>CUPCA RJC @ 35% LCS</b>																			\$0	
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	1.78%	\$0	0.00%	\$0			2.85%	\$0	28.57%	\$0	31.42%	\$0							\$0	
Reimbursable Costs					0.00%	\$0							16.02%	\$0	50.78%	\$0			66.79%	\$0
Local Cost Share	35.00%				0.00%	\$0							4.54%	\$0	14.40%	\$0			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>7.26%</b>	<b>\$0</b>	<b>23.01%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>30.27%</b>	<b>\$0</b>
<b>CUPCA RJC @ 50% LCS</b>																			\$2,130,000	
Remaining Joint Costs																	0	\$0	0.00%	\$0
Non-Reimbursable Costs	1.78%	\$37,983	0.00%	\$0			2.85%	\$60,739	28.57%	\$608,586	31.42%	\$669,324							\$707,307	
Reimbursable Costs					0.00%	\$0							16.02%	\$341,170	50.78%	\$1,081,523			66.79%	\$1,422,693
Local Cost Share	50.00%				0.00%	\$0							23.98%	\$170,585	76.02%	\$540,761			0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>23.98%</b>	<b>\$170,585</b>	<b>76.02%</b>	<b>\$540,761</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$711,346</b>
Total Adjustments to Non-Reimbursable Costs	5.37%	\$181,073	0.00%	\$0	0.00%	\$0	8.59%	\$289,553	86.04%	\$2,901,252	94.63%	\$3,190,805	0.00%	\$0	0.00%	\$0	0.00%	\$0	100.00%	\$3,371,878
Total Adjustments to Reimbursable Costs	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	9.12%	\$1,626,428	90.88%	\$16,199,841	0.00%	\$0	100.00%	\$17,826,269
Total Adjustments to Local Cost Share	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	23.98%	\$170,585	76.02%	\$540,761	0.00%	\$0	100.00%	\$711,346
Total Adjustments to Eligible for Repayment	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	8.51%	\$1,455,843	91.49%	\$15,659,079	0.00%	\$0	100.00%	\$17,114,923
<b>Total Adjusted Sec 5 Costs:</b>	<b>0.85%</b>	<b>\$181,073</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>1.37%</b>	<b>\$289,553</b>	<b>13.69%</b>	<b>\$2,901,252</b>	<b>15.05%</b>	<b>\$3,190,805</b>	<b>7.67%</b>	<b>\$1,626,428</b>	<b>76.42%</b>	<b>\$16,199,841</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$21,198,147</b>
<b>Total Non-Reimbursable Costs</b>	<b>4.93%</b>	<b>\$39,736,976</b>	<b>8.20%</b>	<b>\$66,115,000</b>	<b>0.00%</b>	<b>\$0</b>	<b>7.88%</b>	<b>\$63,543,237</b>	<b>78.99%</b>	<b>\$636,688,014</b>	<b>86.87%</b>	<b>\$700,231,251</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$806,083,228</b>
Total Reimbursable Costs	0.00%	\$0	0.00%	\$0	8.53%	\$138,728,494	0.00%	\$0	0.00%	\$0	0.00%	\$0	21.94%	\$356,924,313	69.54%	\$1,131,463,952	0.00%	\$0	100.00%	\$1,627,116,759
Total Local Cost Share	0.00%	\$0	0.00%	\$0	6.45%	\$14,897,748	0.00%	\$0	0.00%	\$0	0.00%	\$0	20.87%	\$48,214,831	72.68%	\$167,859,706	0.00%	\$0	100.00%	\$230,972,285
Total Eligible for Repayment	0.00%	\$0	0.00%	\$0	8.87%	\$123,830,745	0.00%	\$0	0.00%	\$0	0.00%	\$0	22.11%	\$308,709,482	69.02%	\$963,604,246	0.57%	\$8,024,147	100.57%	\$1,396,144,473
<b>Total USBR + CUPCA Sec 5 Costs:</b>	<b>1.63%</b>	<b>\$39,736,976</b>	<b>2.72%</b>	<b>\$66,115,000</b>	<b>5.70%</b>	<b>\$138,728,494</b>	<b>2.61%</b>	<b>\$63,543,237</b>	<b>26.17%</b>	<b>\$636,688,014</b>	<b>28.78%</b>	<b>\$700,231,251</b>	<b>14.67%</b>	<b>\$356,924,313</b>	<b>46.50%</b>	<b>\$1,131,463,952</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$2,433,199,986</b>

**TABLE 7-3**  
**Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs**  
 (Section 5 IDC)

FEATURE	PROJECT PURPOSES														Totals					
	Flood Control		Highway Improvement		Power		Fish and Wildlife			Irrigation		M&I		Remaining Joint						
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W (%)	F&W (\$)	Instream Flow (%)	Instream Flow (\$)	F&W Sub-Total (%)	F&W Sub-Total (\$)	Irrigation (%)	Irrigation (\$)		M&I (%)	M&I (\$)	Joint (%)	Joint (\$)	
<b>Starvation Dam and Reservoir Total Cost</b>																		\$20,061,279		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	8.62%	\$1,266,709			9.75%	\$1,433,774	35.14%	\$5,165,012	44.89%	\$6,598,786	46.49%	\$6,834,792			100.00%	\$14,700,287		
Reimbursable Costs					23.87%	\$1,279,809									76.13%	\$4,081,183		\$5,360,992		
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>23.87%</b>	<b>\$1,279,809</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>76.13%</b>	<b>\$4,081,183</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$5,360,992</b>
<b>Duchesne Canal Rehabilitation</b>																		\$0		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				0.00%	\$0	
Reimbursable Costs					0.00%	\$0									0.00%	\$0		0.00%	\$0	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Taylor Canal Drains</b>																		\$0		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				0.00%	\$0	
Reimbursable Costs					0.00%	\$0									0.00%	\$0		0.00%	\$0	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Upper Stillwater Dam and Reservoir</b>																		\$48,303,162		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			4.62%	\$1,251,598	78.77%	\$21,340,244	83.40%	\$22,591,842	16.60%	\$4,498,303				100.00%	\$27,090,145	
Reimbursable Costs					22.80%	\$4,837,319									77.20%	\$16,375,699		100.00%	\$21,213,018	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>22.80%</b>	<b>\$4,837,319</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>77.20%</b>	<b>\$16,375,699</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$21,213,018</b>
<b>Current Creek Dam and Reservoir</b>																		\$10,544,947		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	8.47%	\$515,348			3.25%	\$197,904	72.91%	\$4,436,298	76.16%	\$4,634,202	15.37%	\$935,126				100.00%	\$6,084,675	
Reimbursable Costs					23.68%	\$1,056,023									76.32%	\$3,404,248		100.00%	\$4,460,271	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>23.68%</b>	<b>\$1,056,023</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>76.32%</b>	<b>\$3,404,248</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$4,460,271</b>
<b>Soldier Creek Dam and Reservoir</b>																		\$7,448,057		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	3.02%	\$108,031			4.41%	\$157,746	69.30%	\$2,481,074	73.71%	\$2,638,820	23.27%	\$833,250				100.00%	\$3,580,100	
Reimbursable Costs					21.87%	\$846,016									78.13%	\$3,021,941		100.00%	\$3,867,957	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>21.87%</b>	<b>\$846,016</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>78.13%</b>	<b>\$3,021,941</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$3,867,957</b>
<b>Strawberry Aqueduct + Collection System</b>																		\$66,975,590		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			1.17%	\$432,915	81.63%	\$30,248,135	82.79%	\$30,681,050	17.21%	\$6,375,994				100.00%	\$37,057,043	
Reimbursable Costs					22.42%	\$6,707,269									77.58%	\$23,211,278		100.00%	\$29,918,546	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>22.42%</b>	<b>\$6,707,269</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>77.58%</b>	<b>\$23,211,278</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$29,918,546</b>
<b>Jordanelle Dam and Reservoir</b>																		\$105,822,358		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	15.85%	\$11,326,321	25.94%	\$18,530,025			9.81%	\$7,008,211	38.56%	\$27,545,877	48.37%	\$34,554,089	9.84%	\$7,032,682				100.00%	\$71,443,117	
Reimbursable Costs					0.00%	\$0									100.00%	\$34,379,241		100.00%	\$34,379,241	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$34,379,241</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$34,379,241</b>
<b>Jordan Aqueduct System</b>																		\$24,271,127		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				0.00%	\$0	
Reimbursable Costs					0.00%	\$0									100.00%	\$24,271,127		100.00%	\$24,271,127	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$24,271,127</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$24,271,127</b>
<b>Jacob Welby Water Rights</b>																		\$0		
Remaining Joint Costs																0	\$0	0.00%	\$0	
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				0.00%	\$0	
Reimbursable Costs					0.00%	\$0									0.00%	\$0		0.00%	\$0	
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>

**TABLE 7-3**  
**Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs**  
 (Section 5 IDC)

FEATURE	PROJECT PURPOSES																Totals			
	Flood Control		Highway Improvement		Power		Fish and Wildlife			Irrigation		M&I		Remaining Joint						
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W (%)	F&W (\$)	Instream Flow (%)	Instream Flow (\$)	F&W Sub-Total (%)	F&W Sub-Total (\$)	Irrigation (%)	Irrigation (\$)	M&I (%)	M&I (\$)		Joint (%)	Joint (\$)	
<b>Upper Provo River Reservoirs</b>																			\$0	
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				\$0	0.00%	\$0
Reimbursable Costs					0.00%	\$0									0.00%	\$0		\$0	0.00%	\$0
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0	0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Svar Tunnel</b>																				\$21,247,387
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			2.10%	\$184,562	67.03%	\$5,901,663	69.13%	\$6,086,224	30.87%	\$2,718,234				\$0	100.00%	\$8,804,458
Reimbursable Costs					20.78%	\$2,585,866									79.22%	\$9,857,062		\$0	100.00%	\$12,442,929
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0	0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>20.78%</b>	<b>\$2,585,866</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>79.22%</b>	<b>\$9,857,062</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$12,442,929</b>
<b>Sixth Water Aqueduct</b>																				\$10,431,749
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			2.10%	\$90,614	67.03%	\$2,897,517	69.13%	\$2,988,130	30.87%	\$1,334,561				\$0	100.00%	\$4,322,691
Reimbursable Costs					20.78%	\$1,269,573									79.22%	\$4,839,485		\$0	100.00%	\$6,109,057
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0	0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>20.78%</b>	<b>\$1,269,573</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>79.22%</b>	<b>\$4,839,485</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$6,109,057</b>
<b>Discontinued Power Investigations</b>																				\$0
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				\$0	0.00%	\$0
Reimbursable Costs					0.00%	\$0									0.00%	\$0		\$0	0.00%	\$0
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0	0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Diamond Fork Pipeline</b>																				\$5,971,465
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			2.10%	\$59,058	67.03%	\$1,888,462	69.13%	\$1,947,520	30.87%	\$869,803				\$0	100.00%	\$2,817,322
Reimbursable Costs					0.00%	\$0									100.00%	\$3,154,143		\$0	100.00%	\$3,154,143
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0	0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$3,154,143</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$3,154,143</b>
<b>Irrigation Abandoned Investigations</b>																				\$0
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				\$0	0.00%	\$0
Reimbursable Costs					0.00%	\$0									0.00%	\$0		\$0	0.00%	\$0
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0	0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Service Facilities</b>																				\$0
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				\$0	0.00%	\$0
Reimbursable Costs					0.00%	\$0									0.00%	\$0		\$0	0.00%	\$0
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0	0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Utah Lake Water Rights</b>																				\$0
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				\$0	0.00%	\$0
Reimbursable Costs					0.00%	\$0									0.00%	\$0		\$0	0.00%	\$0
Local Cost Share	0.00%	\$0			0	\$0							0	\$0	0	\$0		\$0	0.00%	\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total USBR RJC:</b>																				\$0
Total USBR Non-Reimbursable Costs	6.44%	\$11,326,321	11.61%	\$20,420,113	0.00%	\$0	6.15%	\$10,816,380	57.93%	\$101,904,282	64.08%	\$112,720,662	17.87%	\$31,432,743	0.00%	\$0	0.00%	\$0	100.00%	\$175,899,840
Total USBR Reimbursable Costs	0.00%	\$0	0.00%	\$0	12.80%	\$18,581,875	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	87.20%	\$126,595,406	0.00%	\$0	100.00%	\$145,177,281
Total USBR Local Cost Share	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Total Eligible for Repayment	\$0	\$0	\$0	\$0	\$0	\$18,581,875	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1	\$126,595,406	\$0	\$0	100.00%	\$145,177,281
<b>Total USBR Sec 5 Costs:</b>	<b>3.53%</b>	<b>\$11,326,321</b>	<b>6.36%</b>	<b>\$20,420,113</b>	<b>5.79%</b>	<b>\$18,581,875</b>	<b>3.37%</b>	<b>\$10,816,380</b>	<b>31.74%</b>	<b>\$101,904,282</b>	<b>35.11%</b>	<b>\$112,720,662</b>	<b>9.79%</b>	<b>\$31,432,743</b>	<b>39.43%</b>	<b>\$126,595,406</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$321,077,121</b>
<b>ULS Planning and NEPA</b>																				\$0
Remaining Joint Costs																		\$0	0.00%	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0				\$0	0.00%	\$0
Reimbursable Costs					0.00%	\$0									0.00%	\$0		\$0	0.00%	\$0



**TABLE 7-3**  
**Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs**  
**(Section 5 IDC)**

FEATURE	PROJECT PURPOSES														Totals							
	Flood Control		Highway Improvement		Power		Fish and Wildlife			Irrigation		M&I		Remaining Joint								
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W (%)	F&W (\$)	Instream Flow (%)	Instream Flow (\$)	F&W Sub-Total (%)	F&W Sub-Total (\$)	Irrigation (%)	Irrigation (\$)			M&I (%)	M&I (\$)	Remaining Joint (%)	Remaining Joint (\$)		
Reimbursable Costs					0.00%	\$0									0.00%	\$0			0.00%	\$0		
Local Cost Share	35.00%				0	\$0							0	\$0	0	\$0				\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>		
<b>Wasatch County Efficiency Study</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0					0.00%	\$0	
Reimbursable Costs					0.00%	\$0									0.00%	\$0				0.00%	\$0	
Local Cost Share	50.00%				0	\$0							0	\$0	0	\$0				\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>		
<b>WCWEP</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		22.35%	\$192,484		0.00%	\$0		22.35%	\$192,484		77.65%	\$668,630			100.00%	\$151,961
Reimbursable Costs					0.00%	\$0														0.00%	\$0	
Local Cost Share	35.00%				0	\$0							0	\$0	1	\$53,186				100.00%	\$53,186	
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$98,775</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$98,775</b>		
<b>Utah Lake Salinity Control</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0					0.00%	\$0	
Reimbursable Costs					0.00%	\$0									0.00%	\$0				0.00%	\$0	
Local Cost Share	50.00%				0	\$0							0	\$0	0	\$0				\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>		
<b>Diamond Fork System</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		2.10%	\$156,948		67.03%	\$5,018,661		69.13%	\$5,175,608		30.87%	\$2,311,534			100.00%	\$7,487,142
Reimbursable Costs					20.78%	\$2,198,971									79.22%	\$8,382,257				100.00%	\$10,581,228	
Local Cost Share	5.18%				20.78%	\$113,907							0	\$0	79.22%	\$434,201				\$548,108		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>20.78%</b>	<b>\$2,085,064</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>79.22%</b>	<b>\$7,948,056</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$10,033,120</b>		
<b>Uinta Basin Replacement Project</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		0.00%	\$0		69.05%	\$1,025,279		69.05%	\$1,025,279		30.95%	\$459,594			100.00%	\$1,484,873
Reimbursable Costs					0.00%	\$0														0.00%	\$0	
Local Cost Share	35.00%				0	\$0							0	\$0	100.00%	\$193,001				100.00%	\$551,431	
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$358,430</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$358,430</b>		
<b>Local Development</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0					0.00%	\$0	
Reimbursable Costs					0.00%	\$0									0.00%	\$0				0.00%	\$0	
Local Cost Share	35.00%				0	\$0							0	\$0	0	\$0				\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>		
<b>Studies, Reports, Coordinated Operations</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0					0.00%	\$0	
Reimbursable Costs					0.00%	\$0														0.00%	\$0	
Local Cost Share	35.00%				0	\$0							0	\$0	0	\$0				\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>		
<b>Water Conservation Credit Program</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0					0.00%	\$0	
Reimbursable Costs					0.00%	\$0														0.00%	\$0	
Local Cost Share	35.00%				0	\$0							0	\$0	0	\$0				\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>		
<b>Lease of Daniels Creek Water Rights</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		
Non-Reimbursable Costs		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0		0.00%	\$0					0.00%	\$0	
Reimbursable Costs					0.00%	\$0														0.00%	\$0	
Local Cost Share	35.00%				0	\$0							0	\$0	0	\$0				\$0		
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>		
<b>Title V</b>																						
Remaining Joint Costs																	0	\$0	0.00%	\$0		

**TABLE 7-3**  
**Determination of Local Cost Share and Reimbursable/Non-Reimbursable Costs**  
**(Section 5 IDC)**

FEATURE	PROJECT PURPOSES																Totals			
	Flood Control		Highway Improvement		Power		Fish and Wildlife			Irrigation		M&I		Remaining Joint						
	(%)	(\$)	(%)	(\$)	(%)	(\$)	F&W (%)	F&W (\$)	Instream Flow (%)	Instream Flow (\$)	F&W Sub-Total (%)	F&W Sub-Total (\$)	Irrigation (%)	Irrigation (\$)	M&I (%)	M&I (\$)		Remaining Joint (%)	Remaining Joint (\$)	
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0					0.00%	\$0
Reimbursable Costs					0.00%	\$0									0.00%	\$0			0.00%	\$0
Local Cost Share	0.00%				0	\$0							0	\$0	0	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total Remaining Joint Costs:</b>																			0.00%	\$0
Total Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0	0.00%	\$0	5.85%	\$717,613	61.15%	\$7,495,408	67.00%	\$8,213,021	33.00%	\$4,044,495	0.00%	\$0	0.00%	\$0	100.00%	\$12,257,516
Total Reimbursable Costs	0.00%	\$0	0.00%	\$0	16.07%	\$3,665,613	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	83.93%	\$19,143,593	0.00%	\$0	100.00%	\$22,809,205
Total Local Cost Share	0.00%	\$0	0.00%	\$0	12.99%	\$627,231	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	87.01%	\$4,200,668	0.00%	\$0	100.00%	\$4,827,900
Total Eligible for Repayment	0	\$0	0	\$0	0.168974	\$3,038,381	0	\$0	0	\$0	0	\$0	0	\$0	0.831026	\$14,942,924	0.00%	\$0	100.00%	\$17,981,306
<b>Total CUPCA Sec 5 Costs:</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>10.45%</b>	<b>\$3,665,613</b>	<b>2.05%</b>	<b>\$717,613</b>	<b>21.37%</b>	<b>\$7,495,408</b>	<b>23.42%</b>	<b>\$8,213,021</b>	<b>11.53%</b>	<b>\$4,044,495</b>	<b>54.59%</b>	<b>\$19,143,593</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$35,066,721</b>
<b>Indian Ford Exchange</b>																				\$0
Remaining Joint Costs																			0	\$0
Non-Reimbursable Costs	0.00%	\$0	0.00%	\$0			0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0					0.00%	\$0
Reimbursable Costs					0.00%	\$0									0.00%	\$0			0.00%	\$0
Local Cost Share	0.00%				0	\$0							0	\$0	0	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>USBR Remaining Joint Costs</b>																				\$0
Remaining Joint Costs																			0	\$0
Non-Reimbursable Costs	3.61%	\$0	0.00%	\$0			3.68%	\$0	34.90%	\$0	38.58%	\$0	11.32%	\$0					53.51%	\$0
Reimbursable Costs					0.00%	\$0									46.49%	\$0			46.49%	\$0
Local Cost Share	0.00%				0.00%	\$0							0.00%	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>89.33%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>89.33%</b>	<b>\$0</b>
<b>CUPCA RJC @ 35% LCS</b>																				\$0
Remaining Joint Costs																			0	\$0
Non-Reimbursable Costs	3.61%	\$0	0.00%	\$0			3.68%	\$0	34.90%	\$0	38.58%	\$0	11.32%	\$0					53.51%	\$0
Reimbursable Costs					0.00%	\$0									46.49%	\$0			46.49%	\$0
Local Cost Share	35.00%				0.00%	\$0							0.00%	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>CUPCA RJC @ 50% LCS</b>																				\$0
Remaining Joint Costs																			0	\$0
Non-Reimbursable Costs	3.61%	\$0	0.00%	\$0			3.68%	\$0	34.90%	\$0	38.58%	\$0	11.32%	\$0					53.51%	\$0
Reimbursable Costs					0.00%	\$0									46.49%	\$0			46.49%	\$0
Local Cost Share	50.00%				0.00%	\$0							0.00%	\$0	0.00%	\$0				\$0
<b>Amount Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total Adjustments to Non-Reimbursable Costs</b>	<b>4.77%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>4.86%</b>	<b>\$0</b>	<b>46.08%</b>	<b>\$0</b>	<b>50.94%</b>	<b>\$0</b>	<b>14.94%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total Adjustments to Reimbursable Costs</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>67.66%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total Adjustments to Local Cost Share</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total Adjustments to Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>67.66%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total Adjusted Sec 5 Costs:</b>	<b>2.50%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>2.55%</b>	<b>\$0</b>	<b>24.16%</b>	<b>\$0</b>	<b>26.71%</b>	<b>\$0</b>	<b>7.84%</b>	<b>\$0</b>	<b>32.19%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>
<b>Total Non-Reimbursable Costs</b>	<b>6.02%</b>	<b>\$11,326,321</b>	<b>10.85%</b>	<b>\$20,420,113</b>	<b>0.00%</b>	<b>\$0</b>	<b>6.13%</b>	<b>\$11,533,993</b>	<b>58.14%</b>	<b>\$109,399,690</b>	<b>64.27%</b>	<b>\$120,933,683</b>	<b>18.86%</b>	<b>\$35,477,238</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$188,157,356</b>
<b>Total Reimbursable Costs</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>13.24%</b>	<b>\$22,247,488</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>86.76%</b>	<b>\$145,738,999</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$167,986,486</b>
<b>Total Local Cost Share</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>12.99%</b>	<b>\$627,231</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>87.01%</b>	<b>\$4,200,668</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$4,827,900</b>
<b>Total Eligible for Repayment</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>13.25%</b>	<b>\$21,620,257</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>0.00%</b>	<b>\$0</b>	<b>86.75%</b>	<b>\$141,538,330</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$163,158,587</b>
<b>Total USBR + CUPCA Sec 5 Costs:</b>	<b>3.18%</b>	<b>\$11,326,321</b>	<b>5.73%</b>	<b>\$20,420,113</b>	<b>6.25%</b>	<b>\$22,247,488</b>	<b>3.24%</b>	<b>\$11,533,993</b>	<b>30.72%</b>	<b>\$109,399,690</b>	<b>33.96%</b>	<b>\$120,933,683</b>	<b>9.96%</b>	<b>\$35,477,238</b>	<b>40.92%</b>	<b>\$145,738,999</b>	<b>0.00%</b>	<b>\$0</b>	<b>100.00%</b>	<b>\$356,143,842</b>

**TABLE 7-4:  
Summary of Costs and Repayment  
(Section 5 Construction and IDC)**

COSTS	PROJECT PURPOSES														Totals			
	Non-Reimbursable				Reimbursable													
	Flood Control		F&W		Highway Improvement		Irrigation IDC		Adjustments		Irrigation		M&I		Power		(%)	(\$)
(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	
<b>Construction</b>																		
USBR	3.09%	\$39,555,903	34.11%	\$436,018,524	5.17%	\$66,115,000	0.00%		0.00%		13.93%	\$178,114,645	38.42%	\$491,088,229	5.27%	\$67,429,538	100.00%	\$1,278,321,839
CUPCA	0.00%	\$0	23.02%	\$261,021,923	0.00%	\$0	0.00%		0.00%		15.63%	\$177,183,240	55.06%	\$624,175,883	6.29%	\$71,298,955	100.00%	\$1,133,680,000
Adjustments (Indian Ford, RJC)	0.85%	\$181,073	15.05%	\$3,190,805	0.00%	\$0	0.00%		0.00%		7.67%	\$1,626,428	76.42%	\$16,199,841	0.00%	\$0	100.00%	\$21,198,147
Construction Sub-Total:	1.63%	\$39,736,976	28.78%	\$700,231,251	2.72%	\$66,115,000	0.00%	\$0	0.00%	\$0	14.67%	\$356,924,313	46.50%	\$1,131,463,952	5.70%	\$138,728,494	100.00%	\$2,433,199,986
Local Cost Share	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%		0.00%		20.87%	\$48,214,831	72.68%	\$167,859,706	6.45%	\$14,897,748	100.00%	\$230,972,285
Construction Costs (Net of Local Cost Share):	1.80%	\$39,736,976	31.80%	\$700,231,251	3.00%	\$66,115,000	0.00%	\$0	0.00%	\$0	14.02%	\$308,709,482	43.76%	\$963,604,246	5.62%	\$123,830,745	100.00%	\$2,202,227,701
<b>IDC (3.222 Percent)</b>																		
USBR	3.53%	\$11,326,321	35.11%	\$112,720,662	6.36%	\$20,420,113	9.79%	\$31,432,743	0.00%		0.00%		39.43%	\$126,595,406	5.79%	\$18,581,875	100.00%	\$321,077,121
CUPCA	0.00%	\$0	23.42%	\$8,213,021	0.00%	\$0	11.53%	\$4,044,495	0.00%		0.00%		54.59%	\$19,143,593	10.45%	\$3,665,613	100.00%	\$35,066,721
Adjustments (Indian Ford, RJC)	3.61%	\$0	38.58%	\$0	0.00%	\$0	11.32%	\$0	0.00%		0.00%		46.49%	\$0	0.00%	\$0	100.00%	\$0
IDC Sub-Total:	3.18%	\$11,326,321	33.96%	\$120,933,683	5.73%	\$20,420,113	9.96%	\$35,477,238	0.00%		0.00%		40.92%	\$145,738,999	6.25%	\$22,247,488	100.00%	\$356,143,842
Local Cost Share	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%		0.00%		0.00%		87.01%	\$4,200,668	12.99%	\$627,231	100.00%	\$4,827,900
IDC Costs (Net of Local Cost Share):	3.22%	\$11,326,321	34.42%	\$120,933,683	5.81%	\$20,420,113	10.10%	\$35,477,238	0.00%		0.00%		40.29%	\$141,538,330	6.15%	\$21,620,257	100.00%	\$351,315,942
<b>Construction + IDC</b>																		
USBR	3.18%	\$50,882,225	34.31%	\$548,739,186	5.41%	\$86,535,113	1.97%	\$31,432,743	0.00%	\$0	11.14%	\$178,114,645	38.62%	\$617,683,635	5.38%	\$86,011,414	100.00%	\$1,599,398,960
CUPCA	0.00%	\$0	23.04%	\$269,234,944	0.00%	\$0	0.35%	\$4,044,495	0.00%	\$0	15.16%	\$177,183,240	55.04%	\$643,319,475	6.41%	\$74,964,568	100.00%	\$1,168,746,721
Adjustments (Indian Ford, RJC)	0.85%	\$181,073	15.05%	\$3,190,805	0.00%	\$0	0.00%	\$0	0.00%	\$0	7.67%	\$1,626,428	76.42%	\$16,199,841	0.00%	\$0	100.00%	\$21,198,147
Construction + IDC Total:	1.83%	\$51,063,298	29.44%	\$821,164,934	3.10%	\$86,535,113	1.27%	\$35,477,238	0.00%	\$0	12.80%	\$356,924,313	45.79%	\$1,277,202,951	5.77%	\$160,975,981	100.00%	\$2,789,343,828
Local Cost Share	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	20.45%	\$48,214,831	72.97%	\$172,060,375	6.58%	\$15,524,980	100.00%	\$235,800,185
Net Construction + IDC Costs:	2.00%	\$51,063,298	32.16%	\$821,164,934	3.39%	\$86,535,113	1.39%	\$35,477,238	0.00%	\$0	12.09%	\$308,709,482	43.28%	\$1,105,142,576	5.70%	\$145,451,002	100.00%	\$2,553,543,643
<b>Adjustments</b>																		
Irrigation: Non-Reimbursable Investigations									\$8,963,772		(\$8,963,772)						\$0	
Power: Non-Reimbursable Investigations									\$12,596,000						(\$12,596,000)		\$0	
Irrigation: Pre-Authorization Investigations									\$733,000		(\$733,000)						\$0	
M&I: Pre-Authorization Investigations									\$740,000				(\$740,000)				\$0	
M&I: Sec 206 Construction Progress Credit									\$10,000,000				(\$10,000,000)				\$0	
Adjusted Net Costs:		\$51,063,298		\$821,164,934		\$86,535,113		\$35,477,238		\$33,032,772		\$299,012,710		\$1,094,402,576		\$132,855,002		\$2,553,543,643
<b>Totals (Non-Reimb, LCS, Repayment)</b>																		
Non-Reimbursable Costs:	4.97%	\$51,063,298	79.94%	\$821,164,934	8.42%	\$86,535,113	3.45%	\$35,477,238	3.22%	\$33,032,772	0.00%	\$0	0.00%	\$0	0.00%	\$0	100.00%	\$1,027,273,355
Reimbursable Costs:																		
Local Cost Share:	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	20.45%	\$48,214,831	72.97%	\$172,060,375	6.58%	\$15,524,980	100.00%	\$235,800,185
Cost Subject to Repayment	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	19.59%	\$299,012,710	71.70%	\$1,094,402,576	8.70%	\$132,855,002	100.00%	\$1,526,270,288

**TABLE 7-5:  
Determination of Non-Reimbursable Irrigation Abandoned Investigations**

Mona Dam & Reservoir	\$837,980		Not Included in 201(b)(2)(A-F)
Mona Pumping Plant	\$377,427		Not Included in 201(b)(2)(A-F)
Nephi Pumping Plant	\$111,250		Not Included in 201(b)(2)(A-F)
Mona Nephi Canal	\$1,895,218		Not Included in 201(b)(2)(A-F)
Mona Nephi Lateral	\$115,794		Not Included in 201(b)(2)(A-F)
West Mona Pumping Plant	\$10,695		Not Included in 201(b)(2)(A-F)
<b>Mona - Nephi Sub-Total:</b>	<b>\$3,348,364</b>	<b>\$0</b>	Not Included in 201(b)(2)(A-F)
Mosida Lower Pumping Plant		\$368,129	Included in 201(b)(2)(A)
Mosida North Pumping Plant		\$21,874	Included in 201(b)(2)(A)
Mosida Upper Pumping Plant		\$22,673	Included in 201(b)(2)(A)
Mosida Upper Canal		\$312,851	Included in 201(b)(2)(A)
Mosida North Canal		\$19,293	Included in 201(b)(2)(A)
Mosida Lower Canal		\$24,356	Included in 201(b)(2)(A)
Mosida Laterals		\$118,666	Included in 201(b)(2)(A)
<b>Mosida Sub-Total:</b>	<b>\$0</b>	<b>\$887,842</b>	
Wasatch Aqueduct	\$9,264,515		Not Included in 201(b)(2)(A-F)
Santaquin Laterals	\$69,818		Not Included in 201(b)(2)(A-F). The laterals are proposed and described in the 1988 Supplemental DPR. On page 42, the report states, "Lateral systems will be considered in the Mosida, Elberta, Mona, West Mona, Nephi, Salem Bench, and Santaquin areas." On
Beer Creek Channel		\$15,315	Included in 201(b)(2)(B). The lower three mile portion of Beer Creek is considered Benjamin Slough. The Beer Creek channel improvement is directly related to the draining of Benjamin
Elberta Canal	\$205,613		Not Included in 201(b)(2)(A-F)
Elberta Laterals	\$80,448		Not Included in 201(b)(2)(A-F)
Nephi Sevier Canal	\$915,191		Not Included in 201(b)(2)(A-F)
Beer Creek Spanish Fork Peteetneet	\$237,993		Not Included in 201(b)(2)(A-F). The Beer Creek/Spanish Fork/Peteetneet area includes drains and laterals that are geographically separate from Benjamin Slough. This irrigation feature is proposed and described in the 1988 Supplemental DPR F&E Appendix on
Beer Creek Pumping Plant		\$792,668	Included in 201(b)(2)(B). The lower three mile portion of Beer Creek is considered Benjamin Slough. The Beer Creek Pumping Plant would have pumped drainage water from Benjamin Slough.
Provo Bay Pumping Plant		\$503	Included in 201(b)(2)(A-F)
Hobble Creek Diversion Dam		\$1,490	Included in 201(b)(2)(C)
Springville Bypass		\$665	Included in 201(b)(2)(C)
West Mountain Canal	\$76,763		Not Included in 201(b)(2)(A-F). West Mountain Canals proposed and described in the 1988 Supplemental DPR Plans and Analysis Appendix on page 163. Under the Lincoln Point Pumping Plant and West Mountain section, the report states, "Reclamation investigated the feasibility of constructing a pumping plant at Lincoln Point on Utah Lake and a south-flowing canal along the east side of West Mountain."
West Mona Canal	\$10,271		Not Included in 201(b)(2)(A-F)
Lincoln Point Pumping Plant	\$11,577		Not Included in 201(b)(2)(A-F). See discussion of West Mountain
<b>Other Facilities Sub-Total:</b>	<b>\$10,872,189</b>	<b>\$810,641</b>	
Monks Hollow	\$8,248,195		Not Included in 201(b)(2)(A-F)
Leland Bench		\$1,133,125	Included in 201(b)(2)(E)
I&D Abandoned Investigations		\$6,132,164	Included in 201(b)(2)(C) and (F). These abandoned investigations include the diking of Goshen and Provo Bays in Utah Lake. Also, these investigations were already abandoned before publication of the 1988 DPR.
<b>Monks, Leland, I&amp;D Sub-Total:</b>	<b>\$8,248,195</b>	<b>\$7,265,289</b>	
<b>Total:</b>	<b>\$22,468,748</b>	<b>\$8,963,772</b>	<b>\$31,432,520</b>

**TABLE 7-6:  
Bonneville Unit Repayment Contracts**

14-06-4286	28-Dec-65	Contract between the District and the United States for repayment of Bonneville Unit costs. The repayment amount is \$156,808,000.
Supplement to 14-06-400-4286	26-Nov-85	Added \$335,000,000 to the repayment amount for M&I water. This amount could be increased by 10 percent.
86-07-40-R0330	16-May-86	Contract between Jordan Valley Water Conservancy District, the District, and the United States to repay costs of Jordan Aqueduct reaches one through four.
86-07-40-R0330	16-May-86	Contract between the Metropolitan Water District of Salt Lake and Sandy, the District, and the United States to repay costs of Jordan Aqueduct reaches one through four. The combined repayment coverage of contract numbers 86-07-40-R0320 and 86-07-40-R0330
Amendatory Contract No. 1 to 14-06-400-4286	9-Jan-97	The purpose of Amendatory Contract No. 1 between the United States and the District was to make the Repayment Contract, as supplemented, consistent with the provisions of CUPCA.
Supplement No. 2 to 14-06-400-4286	15-Nov-01	This water service contract between the United States and the District was executed under Section 9 (c) (2) of the 1939 Act. Under the contract, CUWCD is assessed for 3,000 AF of M&I water developed by the Uinta Basin Replacement Project.
Contract No. 04-WC-40-120	February, 2005	This repayment contract between the United States and the District provides for repayment of the obligation associated with 60,000 acre-feet of M&I water to be provided by the Utah Lake System.
Contract No. 04-WC-40-240	February, 2005	This water service contract between the United States and the District is under the authority of Section 9 (e) of the 1939 Act. It provides for the delivery of up to 20,000 acre feet of temporary irrigation water to south Utah County until such water is no longer available (because of M&I delivery of the water).

**TABLE 7-7:**  
**Repayment Obligation Associated with 1965 and 1985 Repayment Contracts**

1965 Repayment Contract	\$140,408,000
District Contribution	\$10,000,000
1985 Supplemental Repayment Contract	\$335,000,000
Allowable Increase - 1985 Supplemental Repayment Contract	\$33,500,000
1986 Jordan Aqueduct Contract	\$41,686,000
<b>Total:</b>	<b>\$560,594,000</b>

**TABLE 7-8:  
Water Supply Associated with 1965 and 1985 Repayment Contracts**

2,3	500	Duchesne County	M&I
Special 1	260	Strawberry Basin (Wasatch County)	M&I
5B	2,400	Wasatch County	M&I
5D	1,590	South Utah County	M&I
4A, 4B	20,000	North Utah County	M&I
5A, 5C, 6, Special 2	70,000	Salt Lake County	M&I
<b>Total:</b>	<b>94,750</b>		

**TABLE 7-9:  
Summary of Irrigation Water Supply**

<b>Block Notice</b>	<b>Area</b>	<b>Date Issued</b>	<b>AF</b>
<b>Bonneville Unit (Initial)</b>			
Block Notice 1	Starvation Reservoir	June 19, 1970	21,400
Block Notice 1A	Summit County	February 1, 2001	3,000
Block Notice 1A	Wasatch County	February 1, 2001	12,100
Block Notice 1B	Starvation Reservoir	November 2004	3,000
BU Initial Sub-Total:			39,500
<b>Bonneville Unit (ULS)</b>			
Temporary Irrigation Water	South Utah County (ULS)	December 2004	20,000
BU ULS Sub-Total:			20,000
<b>Uinta Basin Replacement Project</b>			
Block Notice UBRP1	Big Sand Wash Reservoir	Future	2,500
UBRP Sub-Total:			2,500
<b>Total Irrigation Water Supply</b>			<b>62,000</b>

**TABLE 7-10:  
Repayment of Irrigation Costs**

Irrigation Repayment									
Cost									Total
<b>Irrigation Investment</b>									
Construction Cost									356,924,313
Reimbursable IDC			--	--	--				\$0
<b>Total Irrigation Investment</b>			--	--	--				<b>\$356,924,313</b>
<b>Less:</b>									
Local Cost Share (Construction)			--	--	--				(\$48,214,831)
Local Cost Share (IDC)			--	--	--				\$0
Irrigation Abandoned Investigations									(\$8,963,772)
Pre-Authorization Investigation Funds			--	--	--				(\$733,000)
<b>Net Irrigation Investment</b>			--	--	--				<b>\$299,012,710</b>
<b>Irrigation Revenues</b>									
Block Notice	AF	Area Served	Annual Ammortized Per AF	OM&R Charge Per AF	Total Charge Per AF	Annual Revenue Applied to Repayment	Revenue from Other Sources	Years of Repayment	Repayment Revenue
Block Notice 1	9,800	Duchesne	\$1.90	\$6.31	\$8.21	18,620		50	931,000
Block Notice 1	11,600	Duchesne	\$0.00	\$0.00	\$0.00	0	3,767,100	50	3,767,100
Block Notice 1A	3,000	Heber Francis	\$3.10	\$6.31	\$9.41	9,300		50	465,000
Block Notice 1A	12,100	Heber Francis	\$3.10	\$6.31	\$9.41	37,510		50	1,875,500
Block Notice 1B	3,000	Duchesne	\$1.90	\$6.31	\$8.21	5,700		50	285,000
Temporary Irrigation Water	20,000	South Utah County	\$5.60	\$6.31	\$11.91	112,000		20	2,240,000
Block Notice UBRPI	2,500	Big Sand Wash	\$2.52	\$4.43	\$6.95	6,300		50	315,000
<b>Total:</b>	<b>62,000</b>								<b>9,878,600</b>
<b>Irrigation Repayment</b>									
Net Irrigation Investment									299,012,710
Obligation of Power Users (Net Irr Investment - CUWCD Obligation)									282,612,710
Obligation of CUWCD (per 1965 Repayment Contract, as Amended)									16,400,000
Total Irrigation Revenues									9,878,600
Remaining Obligation									6,521,400

**TABLE 7-11:**  
**Summary of Municipal and Industrial Water Supply**

Block Notice	Area	Date Issued	AF
<b>Bonneville Unit (Repayment Contracts)</b>			
Block Notice 2A	Duchesne and Wasatch Counties	May 29, 1975	96
Block Notice 2B	Duchesne County	May 29, 1975	104
Block Notice 3	Duchesne County	December 3, 1979	300
Block Notice 4A	Salt Lake County and North Utah County	May 18, 1986	11,000
Block Notice 4B	Salt Lake County and North Utah County	May 18, 1986	9,000
Block Notice 5A	Salt Lake, North Utah, and Wasatch Counties	May 30, 1997	13,800
Block Notice 5B	Wasatch County	April 1, 2000	2,400
Block Notice 5C	Salt Lake County	September 25, 2002	7,900
Block Notice 5D	South Utah County	May 27, 2003	1,590
Block Notice 6	Salt Lake County	June 20, 2004	43,300
Special Block Notice 1	Wasatch County	September 17, 1987	260
Special Block Notice 2	Salt Lake County	March 31, 1995	5,000
<b>BU Initial Sub-Total:</b>			<b>94,750</b>
<b>Bonneville Unit (ULS)</b>			
Block Notice 7A	Salt Lake County (ULS)	Future	30,000
Block Notice 7B	South Utah County (ULS)	Future	30,000
<b>BU ULS Sub-Total:</b>			<b>60,000</b>
<b>Uinta Basin Replacement Project</b>			
UBRP Water Service	Duchesne County	Future	3,000
<b>UBRP Sub-Total:</b>			<b>3,000</b>
<b>Total M&amp;I Water Supply</b>			<b>157,750</b>

**TABLE 7-12:  
Summary of Municipal and Industrial Repayment**

<b>M&amp;I Repayment</b>				
<b>Cost</b>	<b>Bonnville Unit (Initial)</b>	<b>Bonnville Unit (ULS)</b>	<b>Uinta Basin Replacement Project</b>	<b>Total</b>
<b>M&amp;I Investment</b>				
<b>Construction Cost</b>				1,131,463,952
Reimbursable IDC	--	--	--	\$145,738,999
<b>Total M&amp;I Investment</b>	--	--	--	<b>\$1,277,202,951</b>
<b>Less:</b>	--	--	--	
Local Cost Share (Construction)	--	--	--	(\$167,859,706)
Local Cost Share (IDC)	--	--	--	(\$4,200,668)
Pre-Authorization Investigation Funds	--	--	--	(\$740,000)
Sec 206 Construction Progress Credit	--	--	--	(\$10,000,000)
<b>Net M&amp;I Investment</b>	--	--	--	<b>\$1,094,402,576</b>
<b>M&amp;I Investment by BU Phases</b>				
M&I Water Supply (AF)	94,750	60,000	3,000	157,750
M&I Water Supply (%)	60.06%	38.03%	1.90%	100.00%
Proportion of Net M&I Investment	\$657,335,303	\$416,254,546	\$20,812,727	\$1,094,402,576
Less Section 211 Deferment	\$96,741,303	\$0	\$0	\$96,741,303
Net M&I Investment	\$560,594,000	\$416,254,546	\$20,812,727	\$997,661,273
Less Credit for Jordan Aqueduct Buyout	\$64,850,297	\$0	\$0	\$64,850,297
Net M&I Investment Subject to Repayment	\$495,743,703	\$416,254,546	\$20,812,727	\$932,810,976
<b>Average Cost Per Acre-Foot</b>	<b>\$5,232.12 *</b>	<b>\$6,937.58</b>	<b>\$6,937.58</b>	
<b>40-Year Amortization:M&amp;I Annual Costs by BU Phases</b>				
Average Annual Cost Per Acre-Foot (Amortized over 40 Years @ 3.222 Percent)	\$227.23	\$301.29	\$301.29	
OM&R Per Acre-Foot	\$7.21	\$7.21	\$7.21	
<b>Total Repayment Cost Per AF</b>	<b>\$234.44 *</b>	<b>\$308.50</b>	<b>\$308.50</b>	
<b>50-Year Amortization:M&amp;I Annual Costs by BU Phases</b>				
Average Annual Cost Per Acre-Foot (Amortized over 50 Years @ 3.222 Percent)	\$205.39	\$272.33	\$272.33	
OM&R Per Acre-Foot	\$7.21	\$7.21	\$7.21	
<b>Total Repayment Cost Per AF</b>	<b>\$212.60 *</b>	<b>\$279.54</b>	<b>\$279.54</b>	
* If not for the Section 211 deferment and the credit for Jordan Aqueduct prepayment, the average cost for the 94,750 AF would be the same as the average cost for the 60,000 AF of ULS M&I water.				

**TABLE 7-13:  
Summary of Power Repayment**

Cost	Total
<b>Power Investment</b>	
Construction Cost	\$138,728,494
Reimbursable IDC	\$22,247,488
<b>Total Power Investment</b>	<b>\$160,975,981</b>
<b>Less:</b>	
Local Cost Share (Construction)	(\$14,897,748)
Local Cost Share (IDC)	(\$627,231)
Abandoned Power Investigations Costs	(\$12,596,000)
<b>Net Power Investment</b>	<b>\$132,855,002</b>
<b>Power Revenues</b>	
Amortization of Power Investment (50 Yrs @ 3.222%)	\$5,383,200
Annual Revenue from Jordanelle LOPP	\$114,700
Annual Revenue from Sales of Power (Paid by Power Users)	\$5,268,500
Annual OM&R for Upper Diamond Fork and Sixth Water Power Plants (Paid by Power Users)	\$2,166,000

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U.S. Bureau of Reclamation, *1988 Bonneville Unit Definite Plan Report*, Provo, Utah. May 1988.

U.S. Congress. *Reclamation Projects Authorization and Adjustment Act of 1992, Public Law 102-575* (Specifically Titles I through VI which are known as the Central Utah Project Completion Act), October 30, 1992.

Central Utah Water Conservancy District. 1998 *Supplement to the 1988 Bonneville Unit Definite Plan Report, Financial and Economic Appendix*, March 1998.

Central Utah Water Conservancy District. 2004 *Supplement to the 1988 Bonneville Unit Definite Plan Report, Main Report*, March 1998.

Central Utah Water Conservancy District. 2004 *Supplement to the 1988 Bonneville Unit Definite Plan Report, Designs and Estimates Appendix*, March 1998.

# **Attachment A**

Attachment A

**CORRESPONDENCE REGARDING  
COST ALLOCATION METHOD**



# ATTACHMENT A

# GAO LETTER

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This attachment contains a copy of a January 26, 1994 letter from the U.S. General Accounting Office to Senator Max. S. Baucus and Congressman George Miller regarding the method of allocating Bonneville Unit Costs under CUPCA. The copy in this attachment was transcribed from the original by the CUWCD. In addition, this attachment contains a copy of a March 22, 1994 letter from the Program Director of the Central Utah Project Completion Act Office to the Comptroller General of the General Accounting Office regarding the method of cost allocation.

GAO  
United States  
General Accounting Office  
Washington, D.C.

Resources, Community, and  
Economic Development Division

B-246507

January 26, 1994

The Honorable Max S. Baucus  
Chairman, Committee on Environment and Public Works  
United States Senate

The Honorable George Miller  
Chairman, Committee on Natural Resources  
House of Representatives

The Reclamation Projects Authorization and Adjustment Act of 1992, dated October 30, 1992, authorized, among other things, the completion of the Central Utah Project (CUP). Section 211 of the act requires that not later than 1 year after the date that the Secretary of the Interior declares the project substantially complete, 1/ the Comptroller General of the United States shall audit the allocation of the costs of CUP to irrigation, municipal and industrial, and other project purposes and submit a report to the Secretary and to the Congress. The act also requires that the audit be conducted in accordance with regulations that the Comptroller General shall prescribe. In discussing this matter with staff from the House Committee on Natural Resources--the proponent of the act's provisions regarding GAO's audit--GAO was advised that it was not expected to prescribe regulations. Instead, GAO was expected to develop standards for Interior to follow in developing a cost allocation for CUP. This correspondence relates to the development of the standards.

Cost accounting standards dealing with the allocation of costs to project objectives have been published by the Cost Accounting Standards Board, an entity currently existing in the Office of Management and Budget. 2/ The cost accounting standards published by

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1/ The project is not expected to be substantially complete for several years.

2/ The cost allocation standards are published in title 48 C.F.R., part 9904.

the Board receive substantial scrutiny before being published as rules and regulations. We believe that the Board's standards provide a sound basis for the allocation of costs and that the CUP's cost allocation procedures should follow these standards. Accordingly, we do not believe that additional standards are needed.

Our role in auditing the CUP cost allocation when the project is completed will be to determine whether the methodology Interior used was based on the Cost Accounting Standards Board's standards and whether the allocation was properly applied by Interior.

Our March 1992 report on how the Bureau of Reclamation applied the cost allocation in another project should be helpful to the agency as it undertakes the cost allocation for CUP. <sup>3/</sup> The report discussed the Bureau's difficulties in finalizing a cost allocation for the Central Valley Project (CVP) in California. The Bureau's 1988 draft cost allocation for CVP used the Alternative Justifiable Expenditure method -- a variation of the Separable Costs Remaining Benefits method -- which are both acceptable cost allocation approaches. However, we found that the Bureau included inappropriate costs and used questionable assumptions in applying the Alternative Justifiable Expenditure method. These errors, as well as other problems, generated numerous public comments and contributed to the delay in completing the cost allocation.

In our 1992 report, we described other cost allocation approaches that avoid these problems, for example, allocating joint costs in direct proportion to the specific costs assigned to each purpose and allocating joint costs among purposes on the basis of use. We recommended that the Bureau use cost allocation approaches for CVP that are more timely and less costly and would avoid the problems identified in the draft cost allocation.

We are sending copies of this correspondence to the Secretary of the Interior; the Commissioner, Bureau of Reclamation; and other interested parties. We will make copies available to others upon request. If you or your staff have any questions, please contact me on (202) 512-7756.

/s/ James Duffus III  
Director, Natural Resources Management Issues

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<sup>3/</sup> Bureau of Reclamation: Central Valley Project Cost Allocation Overdue and New Method Needed (GAO/RCED-92-74, March 31, 1992)



# United States Department of the Interior

OFFICE OF THE SECRETARY

Program Director  
CUP Completion Act  
P.O. Box 51338  
Provo, UT 84605

IN REPLY  
REFER TO:

CA-1000

MAR 22 1994

Mr. Charles A. Bowsher  
Comptroller General of the United States  
General Accounting Office  
441 G Street, N.W.  
Washington DC 20548

Subject: Cost Allocation Regulations Prescribed by the  
Comptroller General As Required in Section 211 of the  
Reclamation Projects Authorization and Adjustment Act  
of 1992 (Public Law 102-575)

Dear Mr. Bowsher:

The Reclamation Projects Authorization and Adjustment Act of 1992 (Act) transferred authority for completion of the Central Utah Project from the Bureau of Reclamation to the Central Utah Water Conservancy District (District), and requires the Secretary of the Interior to work directly with the District in implementing the provisions of the Act. Section 201(e) states:

"SECTION 201(e). SECRETARIAL RESPONSIBILITY. - The Secretary is responsible for carrying out the responsibilities as specifically identified in this Act and may not delegate his responsibilities under this Act to the Bureau of Reclamation. The District at its sole option may use the services of the Bureau of Reclamation on any project features."

Section 211 of the Act places specific responsibilities and obligations on the Comptroller General of the United States. Section 211 states:

"SECTION 211. AUDIT OF CENTRAL UTAH PROJECT COST ALLOCATIONS. Not later than one year after the date on which the Secretary declares the Central Utah Project to be substantially complete, the Comptroller General of the United States shall conduct an audit of the allocation of costs of the Central Utah Project to irrigation, municipal and industrial, and other project purposes and submit a report of such audit to the Secretary and to the Congress. The audit shall be conducted in accordance with regulations which the Comptroller General shall prescribe not later than one

year after the date of enactment of this Act. Upon a review of such report, the Secretary shall reallocate such costs....." (emphasis added).

In June 1993, I met with several members of your staff to discuss what regulations were being developed and whether we could anticipate receiving them by October 1993 as required in the Act. I was informed that General Accounting Office (GAO) was not required to develop such regulations, but that GAO would conduct the audit when the Secretary declared the project to be substantially complete. Your staff did provide us with copies of your March 1992 Report entitled "Bureau of Reclamation, Central Valley Project, Cost Allocation Overdue and New Method Needed". They suggested that the concepts contained in this report should be utilized by us and the District as we proceeded.

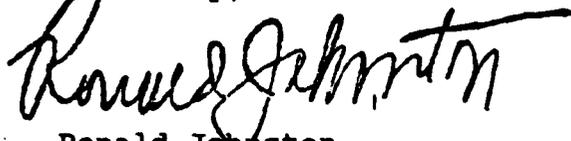
While this may be GAO's position, it is inconsistent with the Federal statute, and GAO's cost allocation regulations are critical during the planning processes so that we can evaluate the District's proposals regarding water sales, project repayment, feasibility studies, etc. As the Secretary of the Interior's local representative, I hereby request that you provide the cost allocation regulations required in Section 211 of the Act.

In the absence of your providing these regulations, we are proposing to have the District use the enclosed procedures for allocating costs for the Central Utah Project. These cost allocation procedures are consistent with those discussed on pages 9 and 10 of your March 1992 Report No. B-246507 on the Central Valley Project.

Please provide the cost allocation regulations required in Section 211 of the Act and/or provide comments on the enclosed procedures. Since the statute only provides a short time-frame for the District to complete its planning process, we must insist on your response on or before April 8, 1994. Absent your response, we must proceed with the District's planning proposals utilizing the enclosed procedures.

If you have questions regarding this matter, please contact me at (801) 379-1103.

Sincerely,



Ronald Johnston  
Program Director

Enclosure

cc: Mr. Robert Wolf  
Water Resources Branch  
Office of Management and Budget  
Washington DC 20503  
(w/c of encl)

Mr. Don A. Christiansen  
General Manager, Central Utah Water  
Conservancy District  
355 West 1300 South  
Orem UT 84058-7303  
(w/c of encl)

bc: Assistant Secretary - Water and Science, Washington Dc  
Commissioner, Bureau of Reclamation, Washington DC  
Budget Officer, Office of the Secretary, Mail Stop 4116,  
1849 C street NW, Washington DC  
(each w/c of encl)

bcc: CA-1000, PRO-442  
(each w/c of encl)

**PROPOSED COST ALLOCATION PROCEDURES  
FOR CUPCA PROJECTS**

In the audit report, GAO/RCED-92-74 Central Valley Project, the General Accounting Office (GAO) proposed two alternative allocation methods to the traditional separable cost remaining benefits allocation method used by the Bureau of Reclamation. In their report, the GAO states:

"We discussed with the Bureau two alternative approaches to its cost allocation method. One approach allocates joint costs in direct proportion to the specific costs assigned to each purpose . . . . The other approach allocates joint costs among purposes on the basis of use . . . . These two approaches have the advantages of (1) eliminating the need to gather data and estimate benefits and alternative costs to allocate joint costs among project purposes, (2) applying a cost allocation formula across all purposes, thus reducing subjective assumptions, and (3) generating a cost allocation more quickly with existing data."

The concepts in the allocation methods suggested by GAO in the Central Valley Project (CVP) audit report can easily be applied to the projects authorized by the Central Utah Project Completion Act (CUPCA). The GAO allocation concepts will simplify and reduce the time required to make an allocation and they will also make future conversion of water use from one purpose to another easy to compute and to assign appropriate repayment values to the exchanged water when required. After studying the recommendations in the GAO's CVP audit report and considering the potential application of alternative allocation methods to the CUPCA projects, the following cost allocation method has been formulated and recommended for use.

**COST ALLOCATION METHOD**

**A. DEFINITIONS OF TERMS**

1. "Project Cost" means the construction costs including Bureau of Reclamation costs, costs authorized by CUPCA, and cost share requirements of CUPCA. Interest during construction for the construction expenditures will be computed for each project feature. Associated operation, maintenance, and replacement costs will be identified for each project feature.

2. "Specific Cost" means the cost of facilities or features that exclusively serve only one project purpose.

3. "Separable Cost" means the difference between the cost of a multiple-purpose structure and the cost of the structure with each project purpose omitted. In certain circumstances, the use of a Separable Cost will be necessary to establish the cost to be used as a Specific Cost.

4. "Joint Cost" means the difference between the cost of the multiple-purpose structure and the sum of the specific costs for the project purposes.

5. "Allocated Cost" means the sum of the specific costs and the joint cost for that purpose. This will be done for each joint use project feature and for each purpose identified for that feature.

6. "Project Purpose" means the function or project features designated capacity to obtain a specific benefit.

**B. METHOD OF ANALYSIS**

1. Determine which purposes will be served by the project-feature.  
2. Estimate the Specific Cost of each purpose.  
3. Deduct the sum of all Specific Costs from the cost of the Project to determine Joint Costs.

4. Distribute the Joint Cost to the Project Purposes in proportion to the designated use of the facility or the specific costs of each purpose which ever is most applicable.

5. Add the Specific Cost to the Joint Cost to determine the Total Cost to each Project Purpose.

Application of this allocation method to the CUPCA projects will simplify, but still maintain the efficiency and equity needed for the cost allocation process.



# United States Department of the Interior

## OFFICE OF THE SECRETARY

Program Director  
CUP Completion Act Office  
302 East 1860 South  
Provo, Utah 84606-7317

IN REPLY REFER TO:

CA-1500  
FIN-3.00

FEB 07 1997

U.S. Department of the Interior  
Office of the Inspector General  
2800 Cottage Way, Suite W-2411  
Sacramento CA 95825

**Subject: Cost Allocation and Final Audit for the Central Utah Project as Provided for in the Central Utah Project Completion Act As Amended - Public Law 102-575**

**Dear Assigned Parties:**

On December 17, 1996, Michael Hansen and I from the Central Utah Project Completion Act Office in Provo, Utah, an office under the Secretary of the Interior, met with Mr. Roger LaRouche and Mr. Jerry Fiely from your Washington, D.C., office. The purpose of the meeting was to provide a briefing and to discuss the requirements of the Amendment to Section 211 of Public Law 102-575 of the Central Utah Project Completion Act as it relates to cost allocation procedures and the final audit for the Bonneville Unit of the Central Utah Project. The language in the original Act specified that "...the Comptroller General of the United States shall conduct an audit of the allocation of costs of the Central Utah Project ..." and that "The audit shall be conducted in accordance with regulations which the Comptroller General shall prescribe no later than one year after the date of enactment of this Act." On October 22, 1996, Congress passed Public Law 104-316 that amended Section 211 of Public Law 102-575. The amendment transferred the responsibility of Section 211 from the Comptroller General to the Office of the Inspector General of the Department of the Interior.

The determination at the meeting with Mr. LaRouche and Mr. Fiely was that we would send to you, all of the relevant material we have relating to the cost allocation processes that had been developed while the responsibility for these activities were assigned to the General Accounting Office. As a result of that discussion, we are enclosing the following documents:

- Public Law 102-575, Central Utah Project Completion Act.
- Public Law 104-316, Amendment to Section 211 of Public Law 102-575 (see highlighted Section on page 9).

- January 25, 1994, letter from General Accounting Office to Senate and House concerning cost allocation methods under requirements of Section 211 of Public Law 102-575.
- March 22, 1994, letter from Ronald Johnston to General Accounting Office concerning proposed cost allocation method for Public Law 102-575.
- March 16, 1994, letter from Central Utah Water Conservancy District with a proposed cost allocation method to be used for the Bonneville Unit under Public Law 102-575.
- March 23, 1994, letter from Central Utah Water Conservancy District to the Program Director containing discussion concerning the local cost share that result from cost allocations of the Diamond Fork Pipeline, Bonneville Unit, Central Utah Project.
- June 22, 1994, letter from Ronald Johnston, Program Director to Central Utah Water Conservancy District containing a recommended cost allocation method for the Diamond Fork Pipeline feature of the Bonneville Unit, Central Utah Project.
- Copy of the March 1992 General Accounting Office Report on the Central Valley Project cost allocation that contains the recommended cost allocations for Central Valley Project and recommended by the General Accounting Office to be used for the Central Utah Project.
- Cost allocation study prepared for Central Utah Project Completion Act Office by private consultant dated April 19, 1995.
- Cost allocation study prepared for Central Utah Project Completion Act Office by private consultant dated November 27, 1995. Expansion of April 19, 1995 study.
- Cost allocation study prepared for Central Utah Project Completion Act Office by private consultant dated February 15, 1996. Special study on allocation of costs of project water designated for fish flows.
- Cost allocation study prepared for Central Utah Project Completion Act Office by private consultant dated May 3, 1996. Special study on allocation of cost already expended for power investigation.

We hope that this information will provide you with the necessary background regarding the status of the determination of a cost allocation procedure that will be agreeable for use on the Central Utah Project. Even though the ultimate application will

come with the final audit of the Bonneville Unit within 1 year after completion of construction, the determination of the cost allocation procedure is critical now to: 1) update the planning documents including the financial and economic analyses, 2) determine the local cost share amounts to be provided by the State of Utah that are unique to this legislation, 3) determine the cost allocated to municipal and industrial water to allow for the provision of Section 210 of the Act that provides for a discounted prepayment of municipal and industrial cost obligations, and 4) facilitate negotiations of a lease of power rate to be charged for private power developers who utilize project facilities to develop and distribute project water through their proposed power generation facilities.

After you have had an opportunity to review the enclosed material, we would be very happy to spend what ever time you desire to clarify and discuss the cost allocation process and the application and implication it has to the Central Utah Project.

For further discussion, I have designated Michael Hansen as the contact person. He may be reached at (801) 379-1194.

Sincerely,

RONALD JOHNSTON

Ronald Johnston  
Program Director

Enclosures

cc: Department of the Interior  
Office of the Inspector General  
Attention: Mr. Roger LaRouche, Director  
12th & C Street NW  
Washington DC 20240  
(w/o encls)

bc: Assistant Secretary - Water and Science, Washington DC  
Attention: Ms. Dana Cooper, MS6640-MIB  
Solicitors Office, Washington DC  
Attention: Ms. Christina Kalavritinos  
Area Manager, Provo UT  
Attention: PRO-103  
(each w/o encls)

Xcc: CA-1000, CA-1200, and CA-1500  
(each w/o encls)

# **Attachment B**

**Attachment B**

**MEMORANDUM ON IRRIGATION  
BENEFITS FOR UBRP**



## TECHNICAL MEMORANDUM

**To:** Project file  
**From:** George Oamek/DEN  
**Date:** August 13, 1996  
**Project:** RMW 37371.07  
**Subject:** Irrigation benefits of the UBRP projects

### Summary

The irrigation benefits provided by the UBRP projects are significant. The projects provide much needed late season water supply for primary and secondary irrigators in the Uintah Basin. In addition, the projects provide a measure of regulation and storage to irrigators in the Uinta River and Whiterocks River drainages. Related to irrigation benefits is the payment capacity of the local irrigators to repay reimbursable project costs.

A farm budget analysis of a representative ranch operation has been developed to assess these irrigation benefits and payment capacity. This is a cow-calf operation with irrigated hay and pasture. The characteristics of the operation, including farm size, yields, output prices, and other parameters were determined through two workshops with local irrigators during 1994.

Table 1 summarizes: (1) the incremental benefit of additional water supply for Uintah Basin irrigators; (2) the benefits of regulation and storage for Uintah Unit irrigators; and (3) the payment capacity of local irrigators for project water.

<b>Table 1</b>	
<b>Summary of the Farm Budget Analysis</b>	
<b>Source of benefit</b>	<b>Estimate of benefit</b>
Water supply	The net return per acre under a full water supply is estimated to be \$185.60. With a maximum diversion of 3.0 acre-feet per acre, a benefit of \$62 per acre-foot is expected.
Water storage to Uintah Unit secondary rightholders currently without storage.	Under a without project condition, the net return per acre is estimated to be \$92.70. With the project, but without a full water supply in all years, the net return increases to \$151.55. The difference is the benefit of the project, \$58.85 per acre.
Irrigation payment capacity	Using yield assumptions in the text, the payment capacity is calculated to be \$28.34 per acre, or \$9.45 per acre-foot.

## Introduction

The Uintah Basin's irrigated croplands have historically been unable to reach their production potential due to a lack of late season water supply. This can be attributed to the seasonal run-off pattern of the nearby High Uintah mountain range and limited water storage capacity. As a result of their substantial southern exposure, the spring run-off from High Uintah snow melt comes in a torrent. Although varying from year to year, this usually occurs between mid-May and mid-June. A lack of water storage has encouraged irrigators to divert as much water as they can during this run-off, usually in excess of crop consumptive use requirements, because these are the only expected deliveries during the growing season. This practice has resulted in a tendency to over-irrigate during this period which contributes to reduced yields and significant environmental damage to the water system.

Project storage will allow irrigators to use water more efficiently, contributing to increasing yields and reducing environmental damages resulting from poor irrigation practices. Storage accumulated during winter months will give irrigators an early season supply (before the run-off), and extend the irrigation season to match the consumptive use requirements of the crops. All irrigators will potentially be on a "call" system which would allow them to access their water upon demand. Tendencies to over-irrigate should be reduced with the assurance of late season water supply, with a resulting restoration of some instream flows during the irrigation season and a reduction in mass loading of salt to the Colorado River system.

## **Classification of Irrigators**

Three classifications are used to categorize irrigators in the project areas. The first is whether they are within the Uintah or Upalco units of the project. The second classification is whether the irrigator is a primary or secondary water rightholder. The third classification applies to secondary rightholders and segregates these irrigators based on their access to current water storage.

### **Primary v. Secondary Water Rightholders**

Primary irrigation rightholders, those who possess what are commonly called Indian water rights, are those irrigators who are Tribal members or who lease Tribal farmland. They are served by Bureau of Indian Affairs facilities, primarily Uintah, Bench, US Deep Creek, US Whiterocks, and US Farm Creek canals in the Uintah unit, and the US Lake Fork and Red Cap canals in the Upalco Unit. Primary rightholders have the highest priority on available water supplies and can generally withdraw their water from the rivers as they need it. Project storage is not as important to primary rightholders because there has historically been sufficient water in the river to meet the bulk of their demands over the growing season. The main benefit of the project to primary rightholders is additional water supply during critically dry years. However, this benefit is relatively modest compared to the benefit to secondary rightholders.

Secondary rightholders are limited to the water remaining in the rivers after primary rightholders are satisfied. These irrigators are mostly non-Indians and experience high variability in water supplies, and timing of the supplies, during the growing season.

### **Secondary Rightholders: Access to Storage**

A major issue for secondary rightholders is access to water storage. When questioned, nearly all irrigators interviewed during the course of this analysis, especially those in the Uintah Unit, stated that water storage for managing current supplies was more critical than developing additional supply. These secondary rightholders consistently stated that they could get a third cutting of alfalfa, rather than the more common two, if storage was available to stretch the high spring run-off later into the irrigation system.

Due to the existence of the Moon Lake and Big Sand Wash reservoirs, the Moon Lake Water Users Association, and the Upalco Equalization Agreement, it is estimated that nearly all of the secondary rightholders in the Upalco unit have access to some storage capacity. Therefore, for benefit of the project to secondary rightholders in the Upalco Unit will be exclusively to water supply.

Secondary rightholders in the Uintah Unit generally do not have access to storage, other than that provided by the High Mountain Lake, and will gain benefit from regulation and storage, as well as additional water supply. A summary of acreage within each of the above categories is contained in Table 2.

## **Irrigation Benefits**

As discussed above, irrigation benefits stem from two sources: additional supply and additional storage capacity. This analysis estimates the magnitude of each source for the Uintah and Upalco project alternatives. Similar methods are used to estimate the per unit benefits from each benefit source:

1. The benefit of additional supply is estimated as the average return to water, measured in \$/acre-foot, as estimated by a farm budget analysis of a representative irrigated operation. The farm budget estimates the net return per acre (\$/acre) of a well-managed representative farm in the Uintah Basin with an adequate water supply and divides this by water deliveries to arrive at an average return per acre-foot of water supply. This is the method used by the Bureau of Reclamation in the previous Upalco and Uintah Definite Plan Reports to measure all irrigation benefits.
2. The benefit of additional storage focuses upon those secondary irrigators who currently do not have access to water storage. For these irrigators, "with project" and "without project" farm budgets were developed and the difference in net farm income between the two are the basis for the storage benefit.

Assumptions used to develop the benefit estimates are discussed in the following sections. These assumptions were developed and reviewed with the assistance of the local irrigators and SCS representatives. This culminated in two workshops with local irrigators conducted March 24 (Upalco irrigators) and March 25 (Uintah irrigators), 1994, in Roosevelt, Utah. Cropping patterns, yields, field operations, input usage, prices, and livestock operations were reviewed at this time.

**Table 2**  
**Irrigated Acreage in the Project Area**

	<u>Uintah Unit</u>	<u>Upalco Unit</u>
Primary rightholder acreage /1	31,379	12,594
Secondary rightholder acreage	43,014	44,410
Total irrigated acreage	74,393	57,004
1/ Primary rightholders are either Tribal members or irrigators leasing Tribal farmland.		

## **Description of the Representative Farm**

A single representative farm is used to estimate irrigation benefits for both the Uinta and Upalco units. This representative farm is a cow-calf operation with sufficient irrigated cropland to support the livestock operation plus sell a portion of the hay crop.

### **Farm Size**

The farm is assumed to consist of 220 acres of irrigated cropland, 10 acres of farmstead, and leased rangeland for 4 months of summer grazing.

### **Cropping Pattern**

The 220 acres of irrigated cropland consist of 80 acres of alfalfa, 20 acres of alfalfa establishment (oat nursery crop cut for hay), 60 acres of native grass hay, and 60 acres of irrigated pasture. This is a different cropping pattern than that used to develop consumptive use requirements for the water supply analysis (Chapter 3 of the Feasibility Report). Cropping patterns used in the Feasibility Report reflect regional average cropping patterns and are appropriate for estimating irrigation water demand for the overall project. However, the Report's cropping pattern does not necessarily reflect the cropping pattern on the representative farm. The primary difference between the two is the inclusion of small grain (barley) in the Feasibility Report's cropping pattern.

Cropping patterns are assumed to remain the same under both the without and with project condition.

### **Livestock Operation**

The representative farm is assumed to support a livestock operation of 160 cows and 7 bulls. These cows are assumed to produce 142 calves annually, net of death losses. Of these calves, 70 steers and 56 heifers are sold in the fall at 500 and 475 lb., respectively. Sixteen heifers are retained as replacements. Sixteen of the cows and 1 bull are culled annually. One replacement bull is purchased annually.

# Irrigation Benefit and Repayment Crop Yields

## Irrigation Benefits Yields

Yield data used to develop the “without project and “with project” crop yields is summarized in Table 3. As shown, the data comes from several sources, including the USBR Definite Plan Reports for the Upalco and Uintah Units, Utah Agricultural Statistics, Utah State University Enterprise Crop Budgets, the former Soil Conservation Service (SCS), and a 1992 survey conducted by CH2M HILL and Horrocks Engineers. This latter survey used a SCS questionnaire to survey irrigators regarding cropping patterns and yields under “poor”, “normal”, and “good” water supply conditions.

Three types of crop yields were developed for use in estimating irrigation benefits:

1. Yields for secondary rightholders without access to storage. These are assumed equivalent to a “without project” yield, and generally reflect historical average yields, such as those shown from the Utah Agricultural Statistics for Duchesne County and Uintah County, and those from the Utah State University Extension Service.
2. A “with project” yield for irrigators receiving a full water supply. This estimate was based upon yields for “good” water years (as defined in the Horrocks survey), and the Uintah and Upalco Unit Definite Plan Reports.
3. “With project” yields for secondary. Availability of storage will increase crop yields for those secondary rightholders without prior access to storage. There was strong anecdotal evidence in the irrigator workshops to suggest that alfalfa yields may increase by a ton per acre with storage, even with little increase in water supply. It should be noted that even with the ability to optimally manage water afforded by project storage, secondary rightholders will not quite receive a full water supply in an average year. However, the frequency of years in which they receive a full supply increases significantly. Therefore, the anecdotal evidence offered by the irrigators was incorporated into the analysis.

In order to account for yield-increasing technology advances, Reclamation Instructions require that future crop yields be projected on an annual basis for 25 years into the project. These yields are subsequently discounted back to a present day basis and amortized over the same 25 years. Reclamation Instructions require that these projections be based upon historical yield trends, with the yield in Year 25 not to exceed the yields the best irrigators are currently experiencing. This analysis does not consider historical yield trends but alternatively incorporates estimates of yield increases developed by the former Soil Conservation Service<sup>1</sup>. These annualized yields are then

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<sup>1</sup> English, B.C., James A. Maetzold, B.R. Holding, and E.O. Heady, eds, “*Future Agriculture Technology and Resource Conservation*”. Iowa State University Press, Ames. 1984. This publication summarizes Delphi estimates developed by experts regarding adoption of new crop technology. The Natural Resource Conservation Service (former SCS) incorporated these estimates into the Resource Conservation Act (RCA) analyses of 1985 and 1990.

used in the farm budget analysis to estimate benefits. Calculations used to estimate these annual yields are contained in Appendix A and summarized in Table 4.

### **Irrigation Payment Capacity Yields**

Calculation of the ability of irrigators to repay reimbursable project costs are based upon yields currently achieved by local irrigators of average management ability. These estimates were also based upon current yields reported in the Utah Agricultural Statistics.

**Table 3**  
**Survey of Current Crop Yields in the Uintah Basin**

	<u>Alfalfa</u> <i>tons/acre</i>	<u>Grass hay</u> <i>tons/acre</i>	<u>Irrigated pasture</u> <i>AUM</i>
<b>"Without Project" Yields – Secondary Water Rightholders, Without Access to Storage</b>			
CH2M HILL/Horrocks survey /2	5.10	2.10	<i>not reported</i>
Utah State University Enterprise Crop Budgets			
Duchesne County	3.80	<i>not reported</i>	<i>not reported</i>
Uintah County	4.15	<i>not reported</i>	<i>not reported</i>
Utah Agricultural Statistics, 1992	3.30	1.90	<i>not reported</i>
Utah Agricultural Statistics, 1993	3.74	2.20	<i>not reported</i>
Average	4.02	2.07	
<b>"With Project" Yields – Primary Water Rightholders With Full Water Supply</b>			
CH2M HILL/Horrocks survey /1	5.53	3.32	<i>25% increase over current level</i>
Bureau of Reclamation, Upalco Definite Plan Report			
Class 2 lands, repayment yield	4.70	2.80	9.00
Class 3 lands, repayment yield	4.40	2.60	4.00
Bureau of Reclamation, Uintah Definite Plan Report	4.50	2.70	4.00
Soil Conservation Service	5.00	3.00	6.00
Average	4.83	2.88	5.75
<b>"With Project" Yields – Secondary Water Rightholders Without a Full Water Supply</b>			
Developed in the Irrigation Workshops	5.50	3.25	9.50

1/ Respondents were asked to estimate their yields for a "good" water year.

2/ Survey respondents were asked to estimate their yields for a "normal" water year.

**Table 4**  
**Crop Yields Used in the Irrigation Benefit and Payment Capacity Analysis**

	<b>Alfalfa</b> tons/acre	<b>Grass hay</b> tons/acre	<b>Irrigated pasture</b> AUM's/acre
Primary irrigators			
"With project" yields	6.00	3.75	10.60
Secondary irrigators			
"Without project" yields	4.50	2.75	7.00
"With project" yields	5.50	3.25	9.50
Irrigation payment capacity	3.70	2.00	6.00

## Prices Received

Any hay in excess of livestock feed requirements is sold. This includes grass hay, oat hay from the alfalfa nurse crop, and some alfalfa. It is assumed that the irrigator can sell alfalfa and grass hay for \$91 per ton. This is the normalized crop price for Utah for these crops, as developed from the publication *Utah Farmer*, over the last 5 years<sup>2</sup>. Oat hay is assumed to sell for \$60 per ton. All pasture is utilized by the livestock enterprise.

Livestock prices were developed in irrigator workshops held during 1994. These prices were developed to represent local conditions as closely as possible. They are summarized as follows:

Calves: \$90 per cwt;

Cows: \$42.50 per cwt;

Bulls: \$60 per cwt.

## Farm Expenses

Prices paid by farmers were derived primarily from enterprise cost studies, machinery cost studies, and local suppliers. All prices are expressed at the 1994 price level, but should also apply to 1995 as well. Soil Conservation Service enterprise cost studies, developed for the Colorado River Water Quality Improvement Projects, and the USBR Definite Plan Reports served as the primary sources of data on cultural practices. Utah State University enterprise cost studies and interviews with local suppliers and irrigators were the primary source of data regarding input prices.

It is assumed that crop cultural practices and most input levels remain the same for both the with and without project condition. However, increased hay yields with the project will require additional irrigation labor and higher harvest costs. Fertilizer and chemical usage is assumed to remain the same because local irrigators apply these inputs with the anticipation of receiving a full water supply.

## Labor

Three sources of labor are identified in the farm budget analysis: machine labor, manual labor, and contract labor. Machine labor is that time the farmer spends on the tractor and harvest equipment. The labor requirement is generally 10 percent more than the actual machine time to account for time spent hitching and unhitching equipment, greasing equipment, and other down time. Manual labor refers to labor required to perform such tasks as irrigation. Contract labor, or

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<sup>2</sup>The Central Utah Conservancy District provided the estimate of normalized hay prices.

custom labor, is used to perform specialized tasks in the farming operations. Labor requirements and expenses were obtained from the previous USBR Definite Plan Reports and Utah State University enterprise crop budgets.

It is assumed that the farm operator can work a maximum of 240 hours per month year round. Maximum labor available from other family members is assumed to be 80 per month year round. Any labor required in excess of family labor availability is hired.

Operator labor is charged at the rate of \$10.10 per hour, a supervisory rate as defined by USDA farm labor statistics. Farm family and hired labor are charged at the common labor rate of \$5.50 per hour.

Management fees are calculated as 6 percent of farm operating expenses less land costs, taxes, depreciation, and repair costs.

All wages paid to operator, family, and hired labor are subject to social security tax. For the analysis, an assumed rate of 10 percent is multiplied by wages paid to approximate this expense.

Wages paid to individuals in excess of \$55,000 annually are not subject to social security tax.

### **Farm Machinery and Equipment**

Equipment included in the farm budget analysis consists of items typically found in the project area. Costs for machinery and equipment include fuel and oil, repairs, interest on investment, depreciation, and insurance. Cost assumptions for the machinery included in the farm budgets were taken from Utah State and Colorado State University enterprise crop budgets, various Bureau of Reclamation farm budget studies, and farm machinery "blue books". Cost assumptions and calculations for owning and operating this machinery are presented in the attached farm budget appendices.

### **Custom Work**

Custom fertilizer application is common in the Uintah Basin and is incorporated into the farm budget analysis.

### **Fertilizer**

Data regarding fertilizer requirements were obtained from SCS crop enterprise studies, Pro-Ag Farm Service in Roosevelt, and interviews with local irrigators. Table 5 summarizes the fertilizer usage assumed in the farm budgets.

<b>Table 5</b>					
<b>Summary of Fertilizer Usage</b>					
<b>Crop</b>	<b>Fertilizer</b>	<b>Units</b>	<b>Application rate (lb./acre)</b>	<b>Price per lb.</b>	<b>Fertilizer cost/acre</b>
Alfalfa	11-52-0	lb.	100	\$0.12	\$21.00
	K2O	lb.	100	\$0.08	\$12.00
Grass hay	11-52-0	lb.	100	\$0.12	\$12.00
	K2O	lb.	100	\$0.08	\$8.00
	46-0-0	lb.	50	\$0.08	\$4.00
Irrigated pasture	P2O5	lb.	50	\$0.10	\$5.00
	K2O	lb.	50	\$0.08	\$4.00
	46-0-0	lb.	50	\$0.08	\$4.00
Alfalfa establishment	P2O5	lb.	100	\$0.10	\$10.00
	K2O	lb.	50	\$0.08	\$4.00
	46-0-0	lb.	75	\$0.08	\$6.00

### **Herbicide, Pesticide, Seed, and Miscellaneous Expenses**

Quantity and price paid for chemicals, seed, and miscellaneous expenses were taken from various Utah State University, Colorado State University, and SCS enterprise crop budgets. In addition, interviews with local irrigators regarding input usage were also conducted. Table 6 summarizes these expenses.

Table 6 Summary of Other Input Usage					
Crop	Input	Units	Application rate	Price per unit	Total cost per acre
Alfalfa	Baling twine	acre	na	\$2.20 per ton of hay yield	Varies with yield
	Chemicals	acre			Average annual cost of herbicides and pesticides are assumed to be \$15.50
Grass hay	Baling twine	acre	na	\$2.20 per ton of hay yield	Varies with yield
	Chemicals	acre			Average annual cost of herbicides and pesticides are assumed to be \$15.50
Alfalfa establishment	Oat seed	lb.	60 lb./acre	\$0.07/lb	\$4.20
	Alfalfa seed	lb.	18 lb./acre	\$2.30/lb	\$41.40

### Land Values and Taxes

Taxable land values used in this analysis are based on "Green Belt" values for irrigated farmland obtained from the Duchesne County Assessors Office. The "Green Belt" program protects irrigators from tax impacts resulting from rapidly increasing land prices. Similar to the Williamson Act in California, irrigators have a reduced tax obligation as long as the land stays in production. Lands suitable for alfalfa production have taxable value ranging from \$250 to \$450 per acre. This analysis assumes that \$350 is representative. Land used for grass hay and irrigated pasture has a taxable value of about \$250.

A tax rate of 0.013067 is applied to the taxable value of the land to calculate real estate assessments.

## **Interest Rates and Farm Investment**

Interest rates on land, improvements, and financed equipment are intended to be representative of actual long-term interest rates for these items. A rate of 10 percent is used on land and improvements, and a rate of 9 percent is applied to equipment. As reported in USDA's Economic Indicators of the Farm Sector, average indebtedness on land and improvements is about 8.35 percent of its market value. On equipment, the proportion of indebtedness is 24.23 percent. These proportions are assumed to hold on this representative farm.

## **Other Farm Expenses**

The farm share of the annual telephone and electricity charges is assumed to be \$600 or about \$50 per month. The farm share of insurance, including vehicle and property insurance, is assumed to be \$900 annually.

## Farm Budget Results

Farm budget analysis has been completed for the 3 sources of benefits previously described are summarized in Table 7. These results can then be applied to each project alternative to estimate total irrigation benefits of the alternatives.

<b>Table 7</b>	
<b>Summary of the Farm Budget Analysis</b>	
Source of benefit	Estimate of benefit
Water supply to primary rightholders.	The net return per acre under a full water supply is estimated to be \$185.60. With a maximum diversion of 3.0 acre-feet per acre, a benefit of \$62 per acre-foot is expected.
Water supply to secondary rightholders with storage.	This is assumed to be the same as for primary rightholders, \$62 per acre-foot.
Water storage to Uintah Unit secondary rightholders currently without storage.	Under a without project condition, the net return per acre is estimated to be \$92.70. With the project, but without a full water supply in all years, the net return increases to \$151.55. The difference is the benefit of the project, \$58.85 per acre.
Irrigation payment capacity	Using yield assumptions in the text, the payment capacity is calculated to be \$28.34 per acre, or \$9.45 per acre-foot.

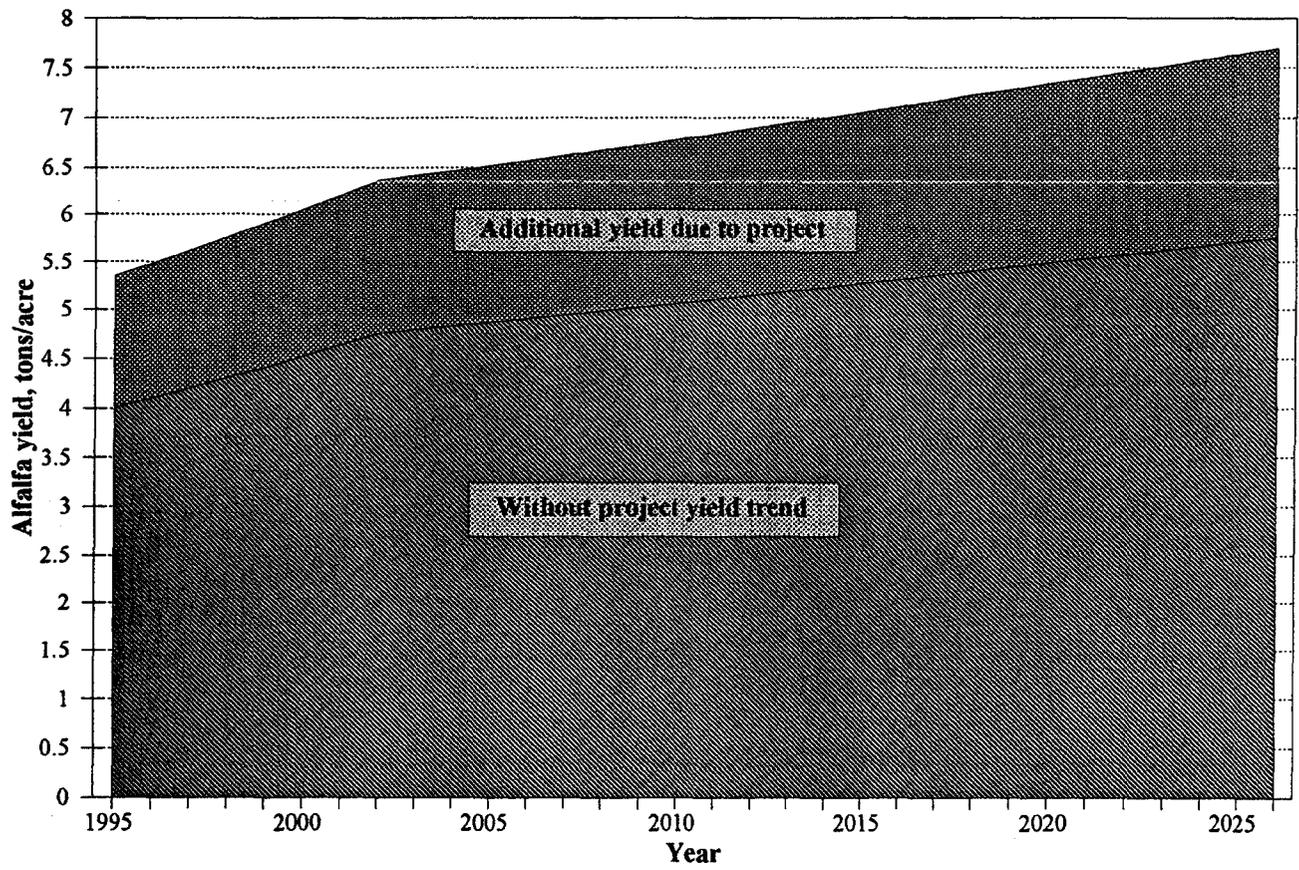
The summary of the farm budget analysis for each condition is included the appendices.

**Appendix A**  
**Development of Project Benefit Yields Over the Project Life**

### Yield estimates and trends over time: Alfalfa

<u>Current without project yields</u>		<u>Current with project yields</u>		<u>Discount rate</u>	3.25%
Yield increases as per CARD estimates				<b>With project</b>	
			Increase	Discounted yields	
1995	4.00	5.35	1.35	Annualized	129.16
1996	4.10	5.48	1.38		5.97
1997	4.20	5.62	1.42	<b>Without project</b>	
1998	4.31	5.76	1.45	Discounted yields	96.56
1999	4.42	5.91	1.49	Annualized	4.46
2000	4.53	6.05	1.53		
2001	4.64	6.20	1.57	Yield increase w/ project	
2002	4.75	6.36	1.60		1.51
2003	4.79	6.41	1.62		
2004	4.83	6.46	1.63		
2005	4.87	6.51	1.64		
2006	4.91	6.57	1.66		
2007	4.95	6.62	1.67		
2008	4.99	6.67	1.68		
2009	5.03	6.72	1.70		
2010	5.07	6.78	1.71		
2011	5.11	6.83	1.72		
2012	5.15	6.89	1.74		
2013	5.19	6.94	1.75		
2014	5.23	7.00	1.77		
2015	5.27	7.05	1.78		
2016	5.32	7.11	1.79		
2017	5.36	7.17	1.81		
2018	5.40	7.22	1.82		
2019	5.44	7.28	1.84		
2020	5.49	7.34	1.85		
2021	5.53	7.40	1.87		
2022	5.58	7.46	1.88		
2023	5.62	7.52	1.90		
2024	5.67	7.58	1.91		
2025	5.71	7.64	1.93		
2026	5.76	7.70	1.94		

**Figure A-1**  
**Trends in Uintah Basin Alfalfa Yields**



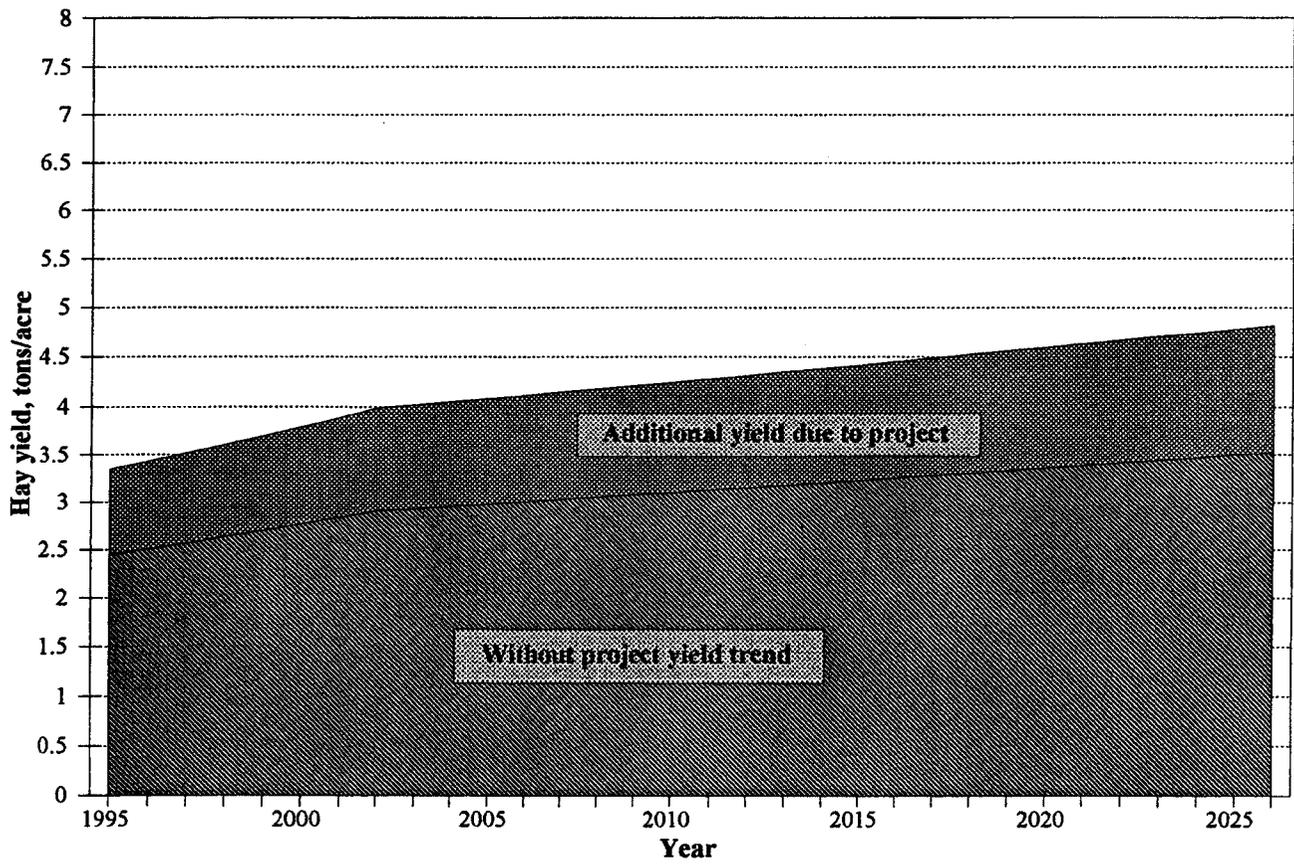
### Yield estimates and trends over time: Grass hay

	Current without project yields	Current with project yields	Increase	
	Yield increases as per CARD estimates			<u>Discount rate</u> 3.25%
1995	2.45	3.35	0.90	
1996	2.51	3.43	0.92	
1997	2.57	3.52	0.95	
1998	2.64	3.61	0.97	
1999	2.70	3.70	0.99	
2000	2.77	3.79	1.02	
2001	2.84	3.88	1.04	
2002	2.91	3.98	1.07	
2003	2.94	4.01	1.08	
2004	2.96	4.05	1.09	
2005	2.98	4.08	1.10	
2006	3.01	4.11	1.10	
2007	3.03	4.14	1.11	
2008	3.05	4.18	1.12	
2009	3.08	4.21	1.13	
2010	3.10	4.24	1.14	
2011	3.13	4.28	1.15	
2012	3.15	4.31	1.16	
2013	3.18	4.35	1.17	
2014	3.20	4.38	1.18	
2015	3.23	4.42	1.19	
2016	3.26	4.45	1.20	
2017	3.28	4.49	1.21	
2018	3.31	4.52	1.22	
2019	3.33	4.56	1.23	
2020	3.36	4.60	1.23	
2021	3.39	4.63	1.24	
2022	3.42	4.67	1.25	
2023	3.44	4.71	1.26	
2024	3.47	4.75	1.27	
2025	3.50	4.78	1.28	
2026	3.53	4.82	1.30	

	<b>With project</b>
	Discounted yields                      80.87
	Annualized                                      3.74
	<b>Without project</b>
	Discounted yields                      59.15
	Annualized                                      2.73
	<b>Yield increase w/ project</b>
	1.00

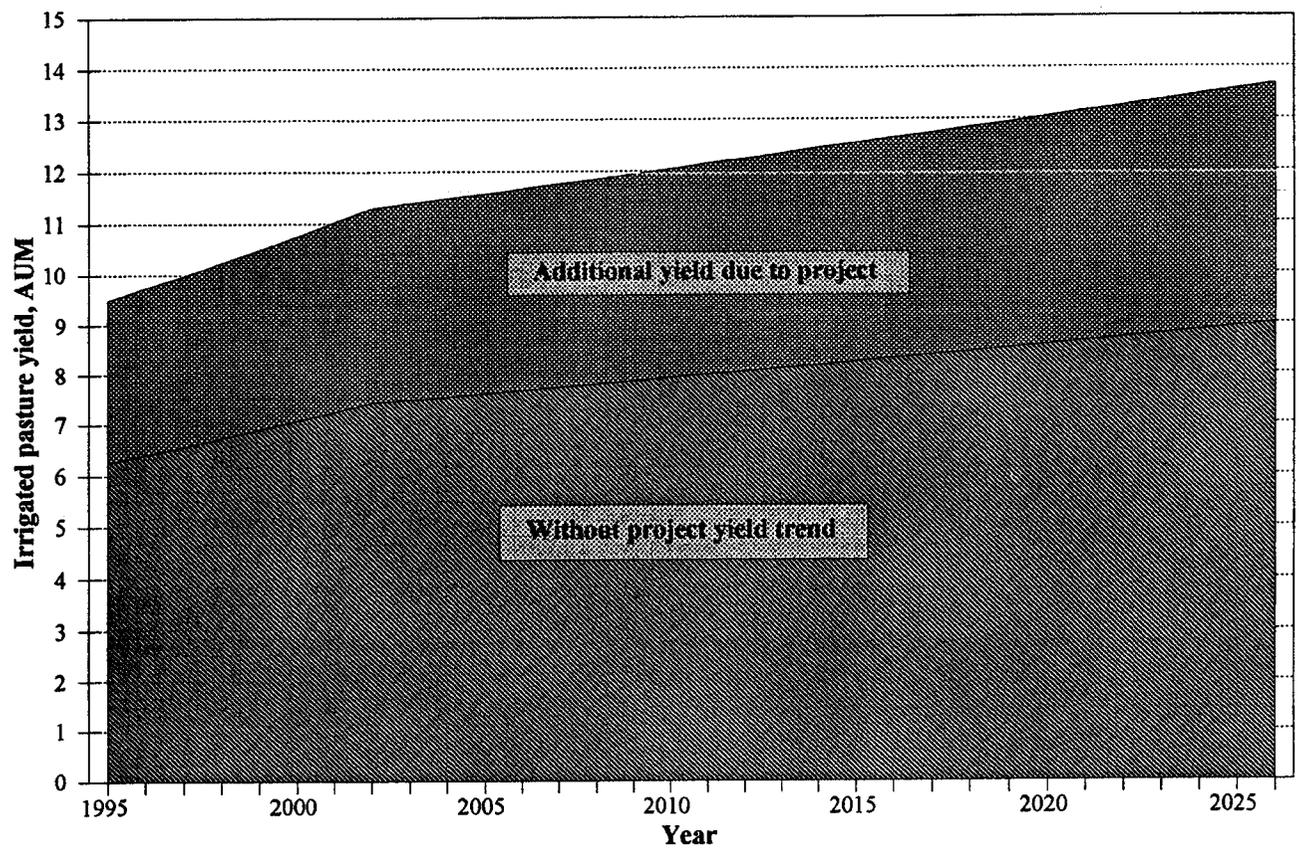
**Figure A-2**  
**Trends in Uinta Basin Grass Hay Yields**



### Yield estimates and trends over time: Irrigated pasture

	Current without project yields	Current with project yields	Increase	Discount rate	3.25%
	Yield increases as per CARD estimates			<b>With project</b>	
1995	6.25	9.50	3.25	Discounted yields	229.34
1996	6.41	9.74	3.33	Annualized	10.60
1997	6.57	9.98	3.41	<b>Without project</b>	
1998	6.73	10.23	3.50	Discounted yields	150.88
1999	6.90	10.49	3.59	Annualized	6.97
2000	7.07	10.75	3.68		
2001	7.25	11.02	3.77	Yield increase w/ project	
2002	7.43	11.29	3.86		3.63
2003	7.49	11.38	3.89		
2004	7.55	11.47	3.93		
2005	7.61	11.57	3.96		
2006	7.67	11.66	3.99		
2007	7.73	11.75	4.02		
2008	7.79	11.85	4.05		
2009	7.86	11.94	4.08		
2010	7.92	12.04	4.12		
2011	7.98	12.13	4.15		
2012	8.05	12.23	4.18		
2013	8.11	12.33	4.22		
2014	8.17	12.43	4.25		
2015	8.24	12.52	4.28		
2016	8.31	12.63	4.32		
2017	8.37	12.73	4.35		
2018	8.44	12.83	4.39		
2019	8.51	12.93	4.42		
2020	8.58	13.03	4.46		
2021	8.64	13.14	4.49		
2022	8.71	13.24	4.53		
2023	8.78	13.35	4.57		
2024	8.85	13.46	4.60		
2025	8.92	13.56	4.64		
2026	8.99	13.67	4.68		

**Figure A-3**  
**Trends in Uinta Basin Pasture Yields**



**Appendix B**  
**Summary of Farm Budget Model Output:**  
**“With Project”, Assuming a Full Water Supply**

## P&amp;G Benefit Budget:

## BENEFITS APPENDIX

## CROP EXPENSES

HIRED LABOR (INCL LIVESTOCK)	\$	0
REPAIRS, FUEL, OIL, GREASE	\$	6008
DEPRECIATION, EQUIPMENT	\$	2099
DEPRECIATION, IRRG SYSTEM	\$	0
REPAIR, IRRG SYSTEM	\$	0
CUSTOM WORK	\$	300
FERTILIZER	\$	4500
HERBICIDES	\$	2170
INSECT CONTROL	\$	0
SEED COST	\$	912
CROP INSURANCE	\$	0
MISC CROP EXPENSES	\$	1329
LAND TAXES	\$	825
TAXES ON IMPROVEMENTS	\$	171
TAXES ON MACHINERY	\$	922
INSURANCE	\$	900
WORKER'S COMPENSATION	\$	0
SOCIAL SECURITY	\$	2057
INTEREST ON OPERATING CAPITAL	\$	241
INTEREST ON DEBT	\$	5928
TELEPHONE AND ELECTRICITY	\$	600
COST OF PUMPING WATER		
SERVICE CHARGE	\$	0
ENERGY CHARGE	\$	0
COST OF PURCHASED WATER	\$	0
MISCELLANEOUS (2% VARIABLE)	\$	321

## LIVESTOCK COSTS

COST OF PURCHASED FEED	\$	0
TAXES, LIVESTOCK	\$	0
MARKETING COSTS	\$	720
GRAZING FEES	\$	3663
PURCHASED LIVESTOCK	\$	1600
OTHER LIVESTOCK COSTS	\$	1775
MISCELLANEOUS (2% OF VARIABLE)	\$	46
 TOTAL EXPENSES	\$	 37086

## FARM INCOME

CROP SALES	\$	47289
LIVESTOCK SOLD	\$	64279
OTHER INCOME	\$	0
-----		
GROSS INCOME	\$	111568
TOTAL EXPENSES	\$	37086
-----		
NET INCOME	\$	74482

## LESS RETURN TO

MANAGEMENT	\$	2087
OPERATOR AND		
FAMILY LABOR	\$	20568
-----		
RETURN TO FARM FAMILY	\$	31793

## IRRIGATION BENEFITS

PER FARM	\$	42689
PER ACRE	\$	185.60

CROP REVENUES

PRIMARY CROP	YIELD PER ACRE	UNITS	ACRE	PRO- DUCTION	TOTAL SOLD	PRICE	PRIMARY CROP VALUE	SECONDARY CROP VALUE	TOTAL VALUE
Alfalfa	6.00 tons		80	480.0	251.80	91.00	22914	0	22914
Grasshay	3.75 tons		60	225.0	225.00	91.00	20475	0	20475
Irr pas	10.50 AUM		60	630.0	630.00	0.00	0	0	0
Alf estab	3.00 tons		20	60.0	60.00	65.00	3900	0	3900
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
FARMSTEAD/WASTE			10						
			TOTAL =	230					

LIVESTOCK REVENUES

TYPE OF LIVESTOCK	NUMBER	SELLING PRICE PER CWT	SELLING WEIGHT	NUMBER SOLD	REVENUE FROM LIVESTOCK
Cows	160	42.50	1150	16	7820
Bulls	7	60.00	1600	1	960
Steers	72	90.00	500	70	31500
Heifers	72	90.00	475	56	23940
R heifers	16	65.00	900	0	59
TOTAL REVENUE FROM ALL LIVESTOCK SOLD =					64279

MACHINERY LIST

TYPE OF EQUIPMENT	TOTAL UNITS OF USE	EQUIPMENT PRICE	UNITS OF LIFE	MAXIMUM USE PER YEAR	COST PER REPAIR	UNIT FUEL	TOTAL	YEARS- LIFE	SINKING FUND FACTOR	EQUIPMENT COST		EQUIPMENT COST PER ACRE
							NUMBER OF IMPLEMENTS REQUIRED			FUEL & REPAIRS	DEPREC.	
Sprayer	16.00	3000	2000	2000	1.000	0.000	1	25	0.0118	16	35	0.2217
PTO baler	71.20	10000	1500	1500	5.600	0.000	1	21	0.0176	399	176	2.5000
Bale wagon	140.00	2500	2000	2000	1.000	0.000	1	14	0.0384	140	96	1.0261
Machinery shed and shop	22.00	5000	25000	2000	0.010	0.000	1	25	0.0118	0	59	0.2565
Plow	8.00	4000	2000	2000	1.000	0.000	1	25	0.0118	8	47	0.2391
Tandem disk	5.00	8000	2000	2000	1.000	0.000	1	25	0.0118	5	94	0.4304
Grain drill	5.00	10000	1500	1500	2.500	0.000	1	25	0.0118	13	118	0.5696
70 hp	117.60	25000	12000	500	1.750	3.500	1	25	0.0118	617	295	3.9652
130 hp	252.12	35000	12000	500	3.000	6.000	1	25	0.0118	2269	413	11.6609
SWATHER	164.34	35000	2500	100	5.000	6.000	2	30	0.0073	1808	511	10.0826
Pickup	49.28	15000	5000	200	0.060	0.090	1	25	0.0118	7	177	0.8000
Loader	100.00	5000	2500	200	0.000	2.330	1	25	0.0118	233	59	1.2696
Stock trai	50.00	6000	1500	100	0.000	0.750	1	25	0.0118	38	71	0.4739
Mineral fe	0.50	500	10	1	0.000	5.000	1	20	0.0195	3	10	0.0565
Branding i	6.00	200	120	12	0.000	0.330	1	20	0.0195	2	4	0.0261
Corrals	1.00	10000	30	1	0.000	200.000	1	25	0.0118	200	118	1.3826
Fencing	1.00	5000	30	1	0.000	200.000	1	25	0.0118	200	59	1.1261
Hay sheds	1.00	1000	30	1	0.000	50.000	1	25	0.0118	50	12	0.2696
Manure spr	0.00	2000	0	0	0.000	0.000	0	0	0.0000	0	0	0.0000
TOTALS		182200								6008	2354	



INSURANCE COSTS

ITEM	INSURANCE COST
LAND, IMPROVEMENTS, MACHINERY	\$ 500.00
VEHICLES	\$ 400
TOTAL	\$ 900

INTEREST ON INVESTMENT

	TOTAL FARM INVESTMENT	INTEREST ON DEBT		RETURN TO EQUITY	
		PER FARM	PER ACRE	PER FARM	PER ACRE
LAND	144000	1202	5.23	3959	17.21
LAND IMPROVEMENTS	0	0	0.00	0	0.00
IRRIGATION SYSTEM	0	0	0.00	0	0.00
DRAINAGE SYSTEM	0	0	0.00	0	0.00
PERMENANT PLANTINGS	0	0	0.00	0	0.00
MACHINERY SHED & SHOP	5000	109	0.47	114	0.50
ALL NON-POWER IMPLEMENTS	37500	818	3.56	852	3.70
SMALL TOOLS	1500	33	0.14	34	0.15
ALL TRACTORS	60000	1308	5.69	1364	5.93
ALL POWER IMPLEMENTS (INCLUDES VEHICLES)	112700	2458	10.69	2562	11.14
BREEDING HERD	0	0	0.00	0	0.00
TOTAL	360700	5928	25.78	8885	38.63

COSTS FOR COMPUTING INTEREST ON OPERATING CAPITAL

ITEM	Alfalfa	Grass hay	Irr pas	Alf estab					TOTAL
HIRED LABOR	0	0	0	0	0	0	0	0	0
CUSTOM WORK	120	90	90	0	0	0	0	0	300
FERTILIZER	1600	1560	900	440	0	0	0	0	4500
HERBICIDE	1240	930	0	0	0	0	0	0	2170
INSECT CONTROL	0	0	0	0	0	0	0	0	0
SEED COST	0	0	0	912	0	0	0	0	912
CROP INSURANCE	0	0	0	0	0	0	0	0	0
MISCELLANEOUS	915	414	0	0	0	0	0	0	1329
IRRIGATION									
PUMPING ENERGY	0	0	0	0	0	0	0	0	0
REPAIRS, FUEL, OIL, AND GREASE	3404	1311	424	868	0	0	0	0	6007
COST OF									
PURCHASED WATER	0	0	0	0	0	0	0	0	0
TELEPHONE AND ELECTRICITY	218	164	164	55	0	0	0	0	601
OTHER INSURANCE	900	IRRIGATION REPAIR	0	LIVESTOCK FEED	0	PURCHASED LIVESTOCK	1600		
HIRED LABOR/LIVESTOCK	0	GRAZING FEES	3663	OTHER LIVESTOCK COSTS	1775				

INTEREST ON OPERATING CAPITAL

ITEM	Alfalfa	Grass hay	Irr pas	Alf estab					TOTAL
HIRED LABOR	0	0	0	0	0	0	0	0	0
CUSTOM WORK	2	1	1	0	0	0	0	0	4
FERTILIZER	23	23	13	6	0	0	0	0	65
HERBICIDE	18	14	0	0	0	0	0	0	32
INSECT CONTROL	0	0	0	0	0	0	0	0	0
SEED COST	0	0	0	13	0	0	0	0	13
CROP INSURANCE	0	0	0	0	0	0	0	0	0
MISCELLANEOUS	13	6	0	0	0	0	0	0	19
IRRIGATION									
PUMPING ENERGY	0	0	0	0	0	0	0	0	0
REPAIRS, FUEL, OIL, AND GREASE	49	19	6	13	0	0	0	0	87
COST OF									
PURCHASED WATER	0	0	0	0	0	0	0	0	0
TELEPHONE AND ELECTRICITY	3	2	2	1	0	0	0	0	8
<b>TOTAL</b>	<b>108</b>	<b>65</b>	<b>22</b>	<b>33</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
OTHER INSURANCE	13	IRRIGATION REPAIR	0	LIVESTOCK FEED	0	PURCHASED LIVESTOCK	0		
HIRED LABOR/LIVESTOCK	0	GRAZING FEES	0	OTHER LIVESTOCK COSTS	0	CROP AND LIVESTOCK TOTAL =	241		

**WATER USE**

CROP	ACRES	USE PER ACRE	WATER REQUIRED
Alfalfa	80	3.00	240.00
Grasshay	60	3.00	180.00
Irr pas	60	3.00	180.00
Alf estab	20	3.00	60.00
	0	0.00	0.00
	0	0.00	0.00
	0	0.00	0.00
	0	0.00	0.00

TOTAL WATER REQUIREMENT = 660.00

**PUMPING ENERGY CHARGES**

METER CHARGE =	\$	0.00
DEMAND CHARGE =	\$	0.00
ENERGY CHARGE =	\$	0.00
BASE ENERGY RATE =	\$	0.0000
ENERGY RATE ADJUSTMENT =	\$	0.0000
KILOWATT HOURS =		0.00
TOTAL ENERGY CHARGE =	\$	0

**TAX EXPENSES**

ITEM	TAX RATE	TAXABLE VALUE	TOTAL TAX PER FARM
LAND	0.01310	63000	825
IMPROVEMENTS	0.03410	5000	171
EQUIPMENT	0.00341	211700	722
VEHICLES			200
			TOTAL= 1918

ON-FARM CROP DISPOSITION

CROP OR LAND USE	YIELD UNITS	PRODUCED	AMOUNT FED		FEED	PRICE	REVENUE	COST
			TO LIVSTK	AMOUNT SOLD	PURCHASED			
Alfalfa	tons	480.00	228.16	251.8	0.0	91.000	22914	0
Grasshay	tons	225.00	0.00	225.0	0.0	91.000	20475	0
Irr pas	AUM	630.00	0.00	630.0	0.0	0.000	0	0
Alf estab	tons	60.00	0.00	60.0	0.0	65.000	3900	0
PASTURE		0.00	625.99	0.0	626.0	0.000	0	0
PUBLIC	AUM	0.00	733.00	0.0	732.6	5.000	0	3663
AFTERMATH	AUM	240.00	92.00	0.0	0.0	0.000	0	0

LIVESTOCK FEED REQUIREMENTS

FEED	QUANTITY (pounds)	QUANTITY (tons)
PUBLIC	733	0.37
PASTURE	626	0.31
Alfalfa	456320	228.16

LABOR HOURS FOR ALL LIVESTOCK OPERATIONS

TYPE OF LIVESTOCK	LABOR HOURS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Cows	1200	120	240	240	120	24	24	24	24	24	120	120	120
Bulls	0	0	0	0	0	0	0	0	0	0	0	0	0
Steers	0	0	0	0	0	0	0	0	0	0	0	0	0
Heifers	0	0	0	0	0	0	0	0	0	0	0	0	0
R heifers	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LABOR =	1200	120	240	240	120	24	24	24	24	24	120	120	120

LIVESTOCK TAXES

TYPE OF LIVESTOCK	NUMBER	TAX PER HEAD	TOTAL TAX
Cows	160	0.00	0
Bulls	7	0.00	0
Steers	72	0.00	0
Heifers	72	0.00	0
R heifers	16	0.00	0
TOTAL TAX FOR ALL LIVESTOCK =			0

LIVESTOCK MARKETING COSTS

TYPE OF LIVESTOCK	NUMBER	MARKETING COST PER HEAD	MARKETING COST
Cows	16	5.00	80
Bulls	1	10.00	10
Steers	70	5.00	350
Heifers	56	5.00	280
R heifers	0	0.00	0
TOTAL MARKETING COST FOR ALL LIVESTOCK =			720

LIVESTOCK MISCELLANEOUS EXPENSES

TYPE OF LIVESTOCK	NUMBER	MISCELLANEOUS COST PER HEAD	TOTAL MISCELLANEOUS COSTS
Cows	160	\$ 10.00	\$ 1600
Bulls	7	\$ 25.00	\$ 175
Steers	72	\$ 0.00	\$ 0
Heifers	72	\$ 0.00	\$ 0
R heifers	16	\$ 0.00	\$ 0
TOTAL MISC COSTS FOR ALL LIVESTOCK = \$			1775

**Appendix C**  
**Summary of Farm Budget Model Output:**  
**“Without Project”, Assuming Current Water Supply**  
**Conditions**

CROP REVENUES

PRIMARY CROP	YIELD PER ACRE	UNITS	ACRE	PRO-DUCTION	TOTAL SOLD	PRICE	PRIMARY CROP VALUE	SECONDARY CROP VALUE	TOTAL VALUE
Alfalfa	4.50 tons		80	360.0	68.10	91.00	6197	0	6197
Grasshay	2.75 tons		60	165.0	165.00	91.00	15015	0	15015
Irr pas	7.00 AUM		60	420.0	420.00	0.00	0	0	0
Alf estab	3.00 tons		20	60.0	60.00	55.00	3300	0	3300
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
FARMSTEAD/WASTE			10						
			TOTAL =	230					

LIVESTOCK REVENUES

TYPE OF LIVESTOCK	NUMBER	SELLING PRICE PER CWT	SELLING WEIGHT	NUMBER SOLD	REVENUE FROM LIVESTOCK
Cows	160	42.50	1150	16	7820
Bulls	7	60.00	1600	1	960
Steers	72	90.00	500	70	31500
Heifers	72	90.00	475	56	23940
R heifers	16	65.00	900	0	59
TOTAL REVENUE FROM ALL LIVESTOCK SOLD =					64279

MACHINERY LIST

TYPE OF EQUIPMENT	TOTAL UNITS OF USE	EQUIPMENT PRICE	UNITS OF LIFE	MAXIMUM USE PER YEAR	COST PER UNIT REPAIR	TOTAL			SINKING FUND FACTOR	EQUIPMENT COST		EQUIPMENT COST PER ACRE
						NUMBER OF IMPLEMENTS REQUIRED	YEARS- LIFE	FUEL		FUEL & REPAIRS	DEPREC.	
Sprayer	16.00	3000	2000	2000	1.000	0.000	1	25	0.0118	16	35	0.2217
PTO baler	71.20	10000	1500	1500	5.600	0.000	1	21	0.0176	399	176	2.5000
Bale wagon	140.00	2500	2000	2000	1.000	0.000	1	14	0.0384	140	96	1.0261
Machinery shed and shop	22.00	5000	25000	2000	0.010	0.000	1	25	0.0118	0	59	0.2565
Plow	8.00	4000	2000	2000	1.000	0.000	1	25	0.0118	8	47	0.2391
Tandem disk	5.00	8000	2000	2000	1.000	0.000	1	25	0.0118	5	94	0.4304
Grain drill	5.00	10000	1500	1500	2.500	0.000	1	25	0.0118	13	118	0.5696
70 hp	117.60	25000	12000	500	1.750	3.500	1	25	0.0118	617	295	3.9652
130 hp	252.12	35000	12000	500	3.000	6.000	1	25	0.0118	2269	413	11.6609
SWATHER	164.34	35000	2500	100	5.000	6.000	2	30	0.0073	1808	511	10.0826
Pickup	49.28	15000	5000	200	0.060	0.090	1	25	0.0118	7	177	0.8000
Loader	100.00	5000	2500	200	0.000	2.330	1	25	0.0118	233	59	1.2696
Stock trai	50.00	6000	1500	100	0.000	0.750	1	25	0.0118	38	71	0.4739
Mineral fe	0.50	500	10	1	0.000	5.000	1	20	0.0195	3	10	0.0565
Branding i	6.00	200	120	12	0.000	0.330	1	20	0.0195	2	4	0.0261
Corrals	1.00	10000	30	1	0.000	200.000	1	25	0.0118	200	118	1.3826
Fencing	1.00	5000	30	1	0.000	200.000	1	25	0.0118	200	59	1.1261
Hay sheds	1.00	1000	30	1	0.000	50.000	1	25	0.0118	50	12	0.2696
Manure spr	0.00	2000	0	0	0.000	0.000	0	0	0.0000	0	0	0.0000
TOTALS		182200								6008	2354	

LABOR COSTS

LABOR LIMITS BY MONTH (FOR ENTIRE OPERATION)													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
OPERATOR	240	240	240	240	240	240	240	240	240	240	240	240	2880
FAMILY	80	80	80	80	80	80	80	80	80	80	80	80	960
-----													
LABOR USED EACH MONTH (INCLUDES ALL CROPS AND LIVESTOCK)													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
OPERATOR	120	240	240	133	103	240	240	226	50	120	120	120	1952
FAMILY	0	0	0	0	0	77	78	0	0	0	0	0	155
HIRED	0	0	0	0	0	0	0	0	0	0	0	0	0
													TOTAL LABOR HOURS= 2107

SOCIAL SECURITY EXPENSES				
WORK BY	RATE	MAXIMUM SOCIAL SECURITY TAXED	COST/FARM	COST/ACRE
OPERATOR	0.1000	55500	1972	12.33
FAMILY	0.1000	55500	85	0.53
HIRED	0.1000	55500	0	0.00
			TOTAL =	2057

WORKER'S	CROP	TOTAL LABOR PERCENTAGE	RATE	COST/FARM	COST/ACRE
COMPENSATION	Alfalfa	23.1	14.000	0	0.0000
	Grass hay	8.9	14.000	0	0.0000
	Irr pas	2.9	14.000	0	0.0000
	Alf estab	5.9	14.000	0	0.0000
		0.0	0.000	0	0.0000
		0.0	0.000	0	0.0000
		0.0	0.000	0	0.0000
		0.0	0.000	0	0.0000
	LIVESTOCK	59.3	14.000	0	0.0000
				TOTAL =	0

LABOR HOURS BY CROP		
CROP	OPERATOR & MANUAL	LIVESTOCK
Alfalfa	264	250
Grass hay	198	0
Irr pas	46	18
Alf estab	66	65
	0	0
	0	0
	0	0
	0	0
LIVESTOCK		1200
TOTALS	574	1533

HIRED LABOR HOURS	
TOTAL HIRED LABOR HOURS =	0.00
HIRED LABOR COST = \$	0

## Without Project budget

## CROP EXPENSES

Hired Labor (incl livestock)	\$	0
Repairs, fuel, oil, grease	\$	6008
Depreciation, equipment	\$	2099
Depreciation, irrg system	\$	0
Repair, irrg system	\$	0
Custom work	\$	300
Fertilizer	\$	4220
Herbicides	\$	2170
Insect control	\$	0
Seed cost	\$	912
Crop insurance	\$	0
Misc crop expenses	\$	1030
Land taxes	\$	825
Taxes on improvements	\$	171
Taxes on machinery	\$	200
Insurance	\$	900
Worker's compensation	\$	0
Social security	\$	2057
Interest on operating capital	\$	233
Interest on debt	\$	5928
Telephone and electricity	\$	600
Cost of pumping water		
Service charge	\$	0
Energy charge	\$	0
Cost of purchased water	\$	0
Miscellaneous (2% variable)	\$	309

## LIVESTOCK COSTS

Cost of purchased feed	\$	0
Taxes, livestock	\$	0
Marketing costs	\$	720
Grazing fees	\$	3663
Purchased livestock	\$	1600
Other livestock costs	\$	1775
Miscellaneous (2% of variable)	\$	46

TOTAL EXPENSES	\$	35765
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## BENEFITS APPENDIX

## FARM INCOME

Crop sales	\$	24512
Livestock sold	\$	64279
Other income	\$	0

-----		
GROSS INCOME	\$	88791
TOTAL EXPENSES	\$	35765

-----		
NET INCOME	\$	53026

## LESS RETURN TO

Management	\$	2007
Operator and family labor	\$	20568

-----		
RETURN TO FARM FAMILY	\$	31705

## IRRIGATION BENEFITS

Per farm	\$	21321
Per acre	\$	92.70

INSURANCE COSTS

ITEM	INSURANCE COST
LAND, IMPROVEMENTS, MACHINERY	\$ 500.00
VEHICLES	\$ 400
TOTAL	\$ 900

INTEREST ON INVESTMENT

	TOTAL FARM INVESTMENT	INTEREST ON DEBT		RETURN TO EQUITY	
		PER FARM	PER ACRE	PER FARM	PER ACRE
LAND	144000	1202	5.23	3959	17.21
LAND IMPROVEMENTS	0	0	0.00	0	0.00
IRRIGATION SYSTEM	0	0	0.00	0	0.00
DRAINAGE SYSTEM	0	0	0.00	0	0.00
PERMENANT PLANTINGS	0	0	0.00	0	0.00
MACHINERY SHED & SHOP	5000	109	0.47	114	0.50
ALL NON-POWER IMPLEMENTS	37500	818	3.56	852	3.70
SMALL TOOLS	1500	33	0.14	34	0.15
ALL TRACTORS	60000	1308	5.69	1364	5.93
ALL POWER IMPLEMENTS (INCLUDES VEHICLES)	112700	2458	10.69	2562	11.14
BREEDING HERD	0	0	0.00	0	0.00
TOTAL	360700	5928	25.78	8885	38.63

COSTS FOR COMPUTING INTEREST ON OPERATING CAPITAL

ITEM	Alfalfa	Grass hay	Irr pas	Alf estab					TOTAL
HIRED LABOR	0	0	0	0	0	0	0	0	0
CUSTOM WORK	120	90	90	0	0	0	0	0	300
FERTILIZER	1600	1440	780	400	0	0	0	0	4220
HERBICIDE	1240	930	0	0	0	0	0	0	2170
INSECT CONTROL	0	0	0	0	0	0	0	0	0
SEED COST	0	0	0	912	0	0	0	0	912
CROP INSURANCE	0	0	0	0	0	0	0	0	0
MISCELLANEOUS	736	294	0	0	0	0	0	0	1030
IRRIGATION									
PUMPING ENERGY	0	0	0	0	0	0	0	0	0
REPAIRS,FUEL,OIL, AND GREASE	3404	1311	424	868	0	0	0	0	6007
COST OF									
PURCHASED WATER	0	0	0	0	0	0	0	0	0
TELEPHONE AND									
ELECTRICITY	218	164	164	55	0	0	0	0	601
OTHER INSURANCE	900	IRRIGATION REPAIR	0	LIVESTOCK FEED	0	PURCHASED LIVESTOCK	1600	0	601
HIRED LABOR/LIVESTOCK	0	GRAZING FEES	3663	OTHER LIVESTOCK COSTS	1775				

INTEREST ON OPERATING CAPITAL

ITEM	Alfalfa	Grass hay	Irr pas	Alf estab					TOTAL
HIRED LABOR	0	0	0	0	0	0	0	0	0
CUSTOM WORK	2	1	1	0	0	0	0	0	4
FERTILIZER	23	21	11	6	0	0	0	0	61
HERBICIDE	18	14	0	0	0	0	0	0	32
INSECT CONTROL	0	0	0	0	0	0	0	0	0
SEED COST	0	0	0	13	0	0	0	0	13
CROP INSURANCE	0	0	0	0	0	0	0	0	0
MISCELLANEOUS	11	4	0	0	0	0	0	0	15
IRRIGATION									
PUMPING ENERGY	0	0	0	0	0	0	0	0	0
REPAIRS,FUEL,OIL, AND GREASE	49	19	6	13	0	0	0	0	87
COST OF									
PURCHASED WATER	0	0	0	0	0	0	0	0	0
TELEPHONE AND									
ELECTRICITY	3	2	2	1	0	0	0	0	8
TOTAL	106	61	20	33	0	0	0	0	
OTHER INSURANCE	13	IRRIGATION REPAIR	0	LIVESTOCK FEED	0	PURCHASED LIVESTOCK	0	0	
HIRED LABOR/LIVESTOCK	0	GRAZING FEES	0	OTHER LIVESTOCK COSTS	0				
									CROP AND LIVESTOCK TOTAL = 233

WATER USE

CROP	ACRES	USE PER ACRE	WATER REQUIRED
Alfalfa	80	3.00	240.00
Grasshay	60	3.00	180.00
Irr pas	60	3.00	180.00
Alf estab	20	3.00	60.00
	0	0.00	0.00
	0	0.00	0.00
	0	0.00	0.00
	0	0.00	0.00

TOTAL WATER REQUIREMENT = 660.00

PUMPING ENERGY CHARGES

METER CHARGE = \$ 0.00  
 DEMAND CHARGE = \$ 0.00  
 ENERGY CHARGE = \$ 0.00

BASE ENERGY RATE = \$ 0.0000  
 ENERGY RATE ADJUSTMENT = \$ 0.0000  
 KILOWATT HOURS = 0.00

TOTAL ENERGY CHARGE = \$ 0

TAX EXPENSES

ITEM	TAX RATE	TAXABLE VALUE	TOTAL TAX PER FARM
LAND	0.01310	63000	825
IMPROVEMENTS	0.03410	5000	171
EQUIPMENT	0.00000	211700	0
VEHICLES			200
			TOTAL= 1196

ON-FARM CROP DISPOSITION

CROP OR LAND USE	YIELD UNITS	AMOUNT PRODUCED	AMOUNT FED		FEED PURCHASED	PRICE	REVENUE	COST
			TO LIVSTK	AMOUNT SOLD				
Alfalfa	tons	360.00	291.91	68.1	0.0	91.000	6197	0
Grasshay	tons	165.00	0.00	165.0	0.0	91.000	15015	0
Irr pas	AUM	420.00	0.00	420.0	0.0	0.000	0	0
Alf estab	tons	60.00	0.00	60.0	0.0	55.000	3300	0
PASTURE		0.00	418.00	0.0	418.0	0.000	0	0
PUBLIC	AUM	0.00	733.00	0.0	732.6	5.000	0	3663
AFTERMATH	AUM	240.00	92.00	0.0	0.0	0.000	0	0

LIVESTOCK FEED REQUIREMENTS

FEED	QUANTITY (pounds)	QUANTITY (tons)
PUBLIC	733	0.37
PASTURE	418	0.21
Alfalfa	583823	291.91

LABOR HOURS FOR ALL LIVESTOCK OPERATIONS

TYPE OF LIVESTOCK	LABOR HOURS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Cows	1200	120	240	240	120	24	24	24	24	24	120	120	120
Bulls	0	0	0	0	0	0	0	0	0	0	0	0	0
Steers	0	0	0	0	0	0	0	0	0	0	0	0	0
Heifers	0	0	0	0	0	0	0	0	0	0	0	0	0
R heifers	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LABOR =	1200	120	240	240	120	24	24	24	24	24	120	120	120

LIVESTOCK TAXES

TYPE OF LIVESTOCK	NUMBER	TAX PER HEAD	TOTAL TAX
Cows	160	0.00	0
Bulls	7	0.00	0
Steers	72	0.00	0
Heifers	72	0.00	0
R heifers	16	0.00	0
TOTAL TAX FOR ALL LIVESTOCK =			0

LIVESTOCK MARKETING COSTS

TYPE OF LIVESTOCK	NUMBER	MARKETING COST PER HEAD	MARKETING COST
Cows	16	5.00	80
Bulls	1	10.00	10
Steers	70	5.00	350
Heifers	56	5.00	280
R heifers	0	0.00	0
TOTAL MARKETING COST FOR ALL LIVESTOCK =			720

LIVESTOCK MISCELLANEOUS EXPENSES

TYPE OF LIVESTOCK	NUMBER	MISCELLANEOUS COST PER HEAD	TOTAL MISCELLANEOUS COSTS
Cows	160	\$ 10.00	\$ 1600
Bulls	7	\$ 25.00	\$ 175
Steers	72	\$ 0.00	\$ 0
Heifers	72	\$ 0.00	\$ 0
R heifers	16	\$ 0.00	\$ 0
TOTAL MISC COSTS FOR ALL LIVESTOCK = \$			1775

**Appendix D**  
**Summary of Farm Budget Model Output:**  
**“With Project, for Secondary Irrigators”, Assuming a**  
**Partial Water Supply**

P&G Budget, Secondary  
CROP EXPENSES

BENEFITS APPENDIX

HIRED LABOR (INCL LIVESTOCK)	\$	0
REPAIRS, FUEL, OIL, GREASE	\$	6008
DEPRECIATION, EQUIPMENT	\$	2099
DEPRECIATION, IRRG SYSTEM	\$	0
REPAIR, IRRG SYSTEM	\$	0
CUSTOM WORK	\$	300
FERTILIZER	\$	4500
HERBICIDES	\$	2170
INSECT CONTROL	\$	0
SEED COST	\$	912
CROP INSURANCE	\$	0
MISC CROP EXPENSES	\$	1329
LAND TAXES	\$	825
TAXES ON IMPROVEMENTS	\$	171
TAXES ON MACHINERY	\$	200
INSURANCE	\$	900
WORKER'S COMPENSATION	\$	0
SOCIAL SECURITY	\$	2057
INTEREST ON OPERATING CAPITAL	\$	241
INTEREST ON DEBT	\$	5928
TELEPHONE AND ELECTRICITY	\$	600
COST OF PUMPING WATER		
SERVICE CHARGE	\$	0
ENERGY CHARGE	\$	0
COST OF PURCHASED WATER	\$	0
MISCELLANEOUS (2% VARIABLE)	\$	321

LIVESTOCK COSTS

COST OF PURCHASED FEED	\$	0
TAXES, LIVESTOCK	\$	0
MARKETING COSTS	\$	720
GRAZING FEES	\$	3663
PURCHASED LIVESTOCK	\$	1600
OTHER LIVESTOCK COSTS	\$	1775
MISCELLANEOUS (2% OF VARIABLE)	\$	46

TOTAL EXPENSES \$ 36364

FARM INCOME

CROP SALES	\$	38690
LIVESTOCK SOLD	\$	64279
OTHER INCOME	\$	0

-----  
GROSS INCOME \$ 102969  
TOTAL EXPENSES \$ 36364  
-----

NET INCOME \$ 66605

LESS RETURN TO

MANAGEMENT	\$	2043
OPERATOR AND FAMILY LABOR	\$	20568

-----  
RETURN TO FARM FAMILY \$ 31749

IRRIGATION BENEFITS

PER FARM	\$	34856
PER ACRE	\$	151.55

CROP REVENUES

PRIMARY CROP	YIELD PER		PRO- DUCTION	TOTAL SOLD	PRICE	PRIMARY CROP VALUE	SECONDARY CROP VALUE	TOTAL VALUE	
	ACRE	UNITS							
Alfalfa	5.50	tons	80	440.0	193.90	91.00	17645	0	17645
Grasshay	3.25	tons	60	195.0	195.00	91.00	17745	0	17745
Irr pas	9.50	AUM	60	570.0	570.00	0.00	0	0	0
Alf estab	3.00	tons	20	60.0	60.00	55.00	3300	0	3300
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
FARMSTEAD/WASTE			10						
			TOTAL =	230					

LIVESTOCK REVENUES

TYPE OF LIVESTOCK	NUMBER	SELLING PRICE PER CWT	SELLING WEIGHT	NUMBER SOLD	REVENUE FROM LIVESTOCK
Cows	160	42.50	1150	16	7820
Bulls	7	60.00	1600	1	960
Steers	72	90.00	500	70	31500
Heifers	72	90.00	475	56	23940
R heifers	16	65.00	900	0	59
TOTAL REVENUE FROM ALL LIVESTOCK SOLD =					64279

MACHINERY LIST

TYPE OF EQUIPMENT	TOTAL UNITS OF USE	EQUIPMENT PRICE	UNITS OF LIFE	MAXIMUM USE PER YEAR	COST PER UNIT REPAIR	TOTAL		YEARS- LIFE	SINKING FUND FACTOR	EQUIPMENT COST		EQUIPMENT COST PER ACRE
						NUMBER OF IMPLEMENTS REQUIRED	FUEL			FUEL & REPAIRS	DEPREC.	
Sprayer	16.00	3000	2000	2000	1.000	0.000	1	25	0.0118	16	35	0.2217
PTO baler	71.20	10000	1500	1500	5.600	0.000	1	21	0.0176	399	176	2.5000
Bale wagon	140.00	2500	2000	2000	1.000	0.000	1	14	0.0384	140	96	1.0261
Machinery shed and shop	22.00	5000	25000	2000	0.010	0.000	1	25	0.0118	0	59	0.2565
Plow	8.00	4000	2000	2000	1.000	0.000	1	25	0.0118	8	47	0.2391
Tandem disk	5.00	8000	2000	2000	1.000	0.000	1	25	0.0118	5	94	0.4304
Grain drill	5.00	10000	1500	1500	2.500	0.000	1	25	0.0118	13	118	0.5696
70 hp	117.60	25000	12000	500	1.750	3.500	1	25	0.0118	617	295	3.9652
130 hp	252.12	35000	12000	500	3.000	6.000	1	25	0.0118	2269	413	11.6609
SWATHER	164.34	35000	2500	100	5.000	6.000	2	30	0.0073	1808	511	10.0826
Pickup	49.28	15000	5000	200	0.060	0.090	1	25	0.0118	7	177	0.8000
Loader	100.00	5000	2500	200	0.000	2.330	1	25	0.0118	233	59	1.2696
Stock trai	50.00	6000	1500	100	0.000	0.750	1	25	0.0118	38	71	0.4739
Mineral fe	0.50	500	10	1	0.000	5.000	1	20	0.0195	3	10	0.0565
Branding i	6.00	200	120	12	0.000	0.330	1	20	0.0195	2	4	0.0261
Corrals	1.00	10000	30	1	0.000	200.000	1	25	0.0118	200	118	1.3826
Fencing	1.00	5000	30	1	0.000	200.000	1	25	0.0118	200	59	1.1261
Hay sheds	1.00	1000	30	1	0.000	50.000	1	25	0.0118	50	12	0.2696
Manure spr	0.00	2000	0	0	0.000	0.000	0	0	0.0000	0	0	0.0000
TOTALS		182200								6008	2354	

LABOR COSTS

LABOR LIMITS BY MONTH (FOR ENTIRE OPERATION)													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
OPERATOR	240	240	240	240	240	240	240	240	240	240	240	240	2880
FAMILY	80	80	80	80	80	80	80	80	80	80	80	80	960
-----													
LABOR USED EACH MONTH (INCLUDES ALL CROPS AND LIVESTOCK)													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
OPERATOR	120	240	240	133	103	240	240	226	50	120	120	120	1952
FAMILY	0	0	0	0	0	77	78	0	0	0	0	0	155
HIRED	0	0	0	0	0	0	0	0	0	0	0	0	0
													TOTAL LABOR HOURS= 2107

SOCIAL SECURITY EXPENSES				
WORK BY	RATE	MAXIMUM SOCIAL SECURITY TAXED	COST/FARM	COST/ACRE
OPERATOR	0.1000	55500	1972	12.33
FAMILY	0.1000	55500	85	0.53
HIRED	0.1000	55500	0	0.00
			TOTAL =	2057

WORKER'S	CROP	TOTAL LABOR PERCENTAGE	RATE	COST/FARM	COST/ACRE
COMPENSATION	Alfalfa	23.1	14.000	0	0.0000
	Grass hay	8.9	14.000	0	0.0000
	Irr pas	2.9	14.000	0	0.0000
	Alf estab	5.9	14.000	0	0.0000
		0.0	0.000	0	0.0000
		0.0	0.000	0	0.0000
		0.0	0.000	0	0.0000
		0.0	0.000	0	0.0000
	LIVESTOCK	59.3	14.000	0	0.0000
				TOTAL =	0

LABOR HOURS BY CROP		
CROP	OPERATOR & MANUAL LIVESTOCK	
	Alfalfa	264
Grass hay	198	0
Irr pas	46	18
Alf estab	66	65
	0	0
	0	0
	0	0
	0	0
LIVESTOCK		1200
TOTALS	574	1533

HIRED LABOR HOURS	
TOTAL HIRED LABOR HOURS =	0.00
HIRED LABOR COST = \$	0

INSURANCE COSTS

ITEM	INSURANCE COST
LAND, IMPROVEMENTS, MACHINERY	\$ 500.00
VEHICLES	\$ 400
TOTAL	\$ 900

INTEREST ON INVESTMENT

	TOTAL FARM INVESTMENT	INTEREST ON DEBT		RETURN TO EQUITY	
		PER FARM	PER ACRE	PER FARM	PER ACRE
LAND	144000	1202	5.23	3959	17.21
LAND IMPROVEMENTS	0	0	0.00	0	0.00
IRRIGATION SYSTEM	0	0	0.00	0	0.00
DRAINAGE SYSTEM	0	0	0.00	0	0.00
PERMENANT PLANTINGS	0	0	0.00	0	0.00
MACHINERY SHED & SHOP	5000	109	0.47	114	0.50
ALL NON-POWER IMPLEMENTS	37500	818	3.56	852	3.70
SMALL TOOLS	1500	33	0.14	34	0.15
ALL TRACTORS	60000	1308	5.69	1364	5.93
ALL POWER IMPLEMENTS (INCLUDES VEHICLES)	112700	2458	10.69	2562	11.14
BREEDING HERD	0	0	0.00	0	0.00
TOTAL	360700	5928	25.78	8885	38.63

COSTS FOR COMPUTING INTEREST ON OPERATING CAPITAL

ITEM	Alfalfa	Grass hay	Irr pas	Alf estab					TOTAL
HIRED LABOR	0	0	0	0	0	0	0	0	0
CUSTOM WORK	120	90	90	0	0	0	0	0	300
FERTILIZER	1600	1560	900	440	0	0	0	0	4500
HERBICIDE	1240	930	0	0	0	0	0	0	2170
INSECT CONTROL	0	0	0	0	0	0	0	0	0
SEED COST	0	0	0	912	0	0	0	0	912
CROP INSURANCE	0	0	0	0	0	0	0	0	0
MISCELLANEOUS	915	414	0	0	0	0	0	0	1329
IRRIGATION									
PUMPING ENERGY	0	0	0	0	0	0	0	0	0
REPAIRS,FUEL,OIL, AND GREASE	3404	1311	424	868	0	0	0	0	6007
COST OF									
PURCHASED WATER	0	0	0	0	0	0	0	0	0
TELEPHONE AND ELECTRICITY	218	164	164	55	0	0	0	0	601
OTHER INSURANCE	900	IRRIGATION REPAIR	0	LIVESTOCK FEED	0	PURCHASED LIVESTOCK	1600		
HIRED LABOR/LIVESTOCK	0	GRAZING FEES	3663	OTHER LIVESTOCK COSTS	1775				

INTEREST ON OPERATING CAPITAL

ITEM	Alfalfa	Grass hay	Irr pas	Alf estab					TOTAL
HIRED LABOR	0	0	0	0	0	0	0	0	0
CUSTOM WORK	2	1	1	0	0	0	0	0	4
FERTILIZER	23	23	13	6	0	0	0	0	65
HERBICIDE	18	14	0	0	0	0	0	0	32
INSECT CONTROL	0	0	0	0	0	0	0	0	0
SEED COST	0	0	0	13	0	0	0	0	13
CROP INSURANCE	0	0	0	0	0	0	0	0	0
MISCELLANEOUS	13	6	0	0	0	0	0	0	19
IRRIGATION									
PUMPING ENERGY	0	0	0	0	0	0	0	0	0
REPAIRS,FUEL,OIL, AND GREASE	49	19	6	13	0	0	0	0	87
COST OF									
PURCHASED WATER	0	0	0	0	0	0	0	0	0
TELEPHONE AND ELECTRICITY	3	2	2	1	0	0	0	0	8
TOTAL	108	65	22	33	0	0	0	0	
OTHER INSURANCE	13	IRRIGATION REPAIR	0	LIVESTOCK FEED	0	PURCHASED LIVESTOCK	0		
HIRED LABOR/LIVESTOCK	0	GRAZING FEES	0	OTHER LIVESTOCK COSTS	0	CROP AND LIVESTOCK TOTAL =	241		

WATER USE

CROP	ACRES	USE PER ACRE	WATER REQUIRED
Alfalfa	80	3.00	240.00
Grasshay	60	3.00	180.00
Irr pas	60	3.00	180.00
Alf estab	20	3.00	60.00
	0	0.00	0.00
	0	0.00	0.00
	0	0.00	0.00
	0	0.00	0.00

TOTAL WATER REQUIREMENT = 660.00

PUMPING ENERGY CHARGES

METER CHARGE = \$ 0.00  
 DEMAND CHARGE = \$ 0.00  
 ENERGY CHARGE = \$ 0.00

BASE ENERGY RATE = \$ 0.0000  
 ENERGY RATE ADJUSTMENT = \$ 0.0000  
 KILOWATT HOURS = 0.00

TOTAL ENERGY CHARGE = \$ 0

TAX EXPENSES

ITEM	TAX RATE	TAXABLE VALUE	TOTAL TAX PER FARM
LAND	0.01310	63000	825
IMPROVEMENTS	0.03410	5000	171
EQUIPMENT	0.00000	211700	0
VEHICLES			200
			TOTAL= 1196

ON-FARM CROP DISPOSITION

CROP OR LAND USE	YIELD UNITS	PRODUCED	AMOUNT FED		FEED PURCHASED	PRICE	REVENUE	COST
			TO LIVSTK	AMOUNT SOLD				
Alfalfa	tons	440.00	246.05	193.9	0.0	91.000	17645	0
Grasshay	tons	195.00	0.00	195.0	0.0	91.000	17745	0
Irr pas	AUM	570.00	0.00	570.0	0.0	0.000	0	0
Alf estab	tons	60.00	0.00	60.0	0.0	55.000	3300	0
PASTURE		0.00	567.99	0.0	568.0	0.000	0	0
PUBLIC	AUM	0.00	733.00	0.0	732.6	5.000	0	3663
AFTERMATH	AUM	240.00	92.00	0.0	0.0	0.000	0	0

LIVESTOCK FEED REQUIREMENTS

FEED	QUANTITY (pounds)	QUANTITY (tons)
PUBLIC	733	0.37
PASTURE	568	0.28
Alfalfa	492110	246.06

LABOR HOURS FOR ALL LIVESTOCK OPERATIONS

TYPE OF LIVESTOCK	LABOR HOURS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Cows	1200	120	240	240	120	24	24	24	24	24	120	120	120
Bulls	0	0	0	0	0	0	0	0	0	0	0	0	0
Steers	0	0	0	0	0	0	0	0	0	0	0	0	0
Heifers	0	0	0	0	0	0	0	0	0	0	0	0	0
R heifers	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LABOR =	1200	120	240	240	120	24	24	24	24	24	120	120	120

LIVESTOCK TAXES

TYPE OF LIVESTOCK	NUMBER	TAX PER HEAD	TOTAL TAX
Cows	160	0.00	0
Bulls	7	0.00	0
Steers	72	0.00	0
Heifers	72	0.00	0
R heifers	16	0.00	0
TOTAL TAX FOR ALL LIVESTOCK =			0

LIVESTOCK MARKETING COSTS

TYPE OF LIVESTOCK	NUMBER	MARKETING COST PER HEAD	MARKETING COST
Cows	16	5.00	80
Bulls	1	10.00	10
Steers	70	5.00	350
Heifers	56	5.00	280
R heifers	0	0.00	0
TOTAL MARKETING COST FOR ALL LIVESTOCK =			720

LIVESTOCK MISCELLANEOUS EXPENSES

TYPE OF LIVESTOCK	NUMBER	MISCELLANEOUS COST PER HEAD	TOTAL MISCELLANEOUS COSTS
Cows	160	\$ 10.00	\$ 1600
Bulls	7	\$ 25.00	\$ 175
Steers	72	\$ 0.00	\$ 0
Heifers	72	\$ 0.00	\$ 0
R heifers	16	\$ 0.00	\$ 0
TOTAL MISC COSTS FOR ALL LIVESTOCK = \$			1775

**Appendix E**  
**Summary of Farm Budget Model Output:**  
**Irrigation Repayment**

Payment Capacity budget  
FARM EXPENSES

PAYMENT CAPACITY APPENDIX

HIRED LABOR (INCL LIVESTOCK)	\$	0
REPAIRS, FUEL, OIL, GREASE	\$	6008
DEPRECIATION, EQUIPMENT	\$	2099
DEPRECIATION, IRRG SYSTEM	\$	0
REPAIR, IRRG SYSTEM	\$	0
CUSTOM WORK	\$	300
FERTILIZER	\$	4220
HERBICIDES	\$	2170
INSECT CONTROL	\$	0
SEED COST	\$	912
CROP INSURANCE	\$	0
MISC CROP EXPENSES	\$	1329
LAND TAXES	\$	825
TAXES ON IMPROVEMENTS	\$	171
TAXES ON MACHINERY	\$	200
INSURANCE	\$	900
WORKER'S COMPENSATION	\$	0
SOCIAL SECURITY	\$	2057
INTEREST ON OPERATING CAPITAL	\$	237
INTEREST ON DEBT	\$	5928
TELEPHONE AND ELECTRICITY	\$	600
COST OF PUMPING WATER		
SERVICE CHARGE	\$	0
ENERGY CHARGE	\$	0
COST OF PURCHASED WATER	\$	0
MISCELLANEOUS (2% VARIABLE)	\$	316

LIVESTOCK COSTS

COST OF PURCHASED FEED	\$	1056
TAXES, LIVESTOCK	\$	0
MARKETING COSTS	\$	720
GRAZING FEES	\$	3663
PURCHASED LIVESTOCK	\$	1600
OTHER LIVESTOCK COSTS	\$	1775
MISCELLANEOUS (2% OF VARIABLE)	\$	68
 TOTAL EXPENSES	 \$	 37153

FARM INCOME

CROP SALES	\$	13120
LIVESTOCK SOLD	\$	64279
OTHER INCOME	\$	0
-----		
GROSS INCOME	\$	77399
TOTAL EXPENSES	\$	37153
-----		
NET INCOME	\$	40246

RETURN

OWNERS EQUITY	\$	8885
MANAGEMENT	\$	4025
EQUITY, OTHER	\$	249
OPERATOR AND		
FAMILY LABOR	\$	20568
-----		
RETURN TO FARM FAMILY	\$	33727

PAYMENT CAPACITY

PER FARM	\$	6519
PER ACRE	\$	28.34

CROP REVENUES

PRIMARY CROP	YIELD PER ACRE	UNITS	ACRE	PRO- DUCTION	TOTAL SOLD	PRICE	PRIMARY CROP VALUE	SECONDARY CROP VALUE	TOTAL VALUE
Alfalfa	3.70 tons		80	296.0	0.00	91.00	0	0	0
Grasshay	2.00 tons		60	120.0	120.00	91.00	10920	0	10920
Irr pas	6.00 AUM		60	360.0	360.00	0.00	0	0	0
Alf estab	2.00 tons		20	40.0	40.00	55.00	2200	0	2200
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
	0.00		0	0.0	0.00	0.00	0	0	0
FARMSTEAD/WASTE			10						
			TOTAL =	230					

LIVESTOCK REVENUES

TYPE OF LIVESTOCK	NUMBER	SELLING PRICE PER CWT	SELLING WEIGHT	NUMBER SOLD	REVENUE FROM LIVESTOCK
Cows	160	42.50	1150	16	7820
Bulls	7	60.00	1600	1	960
Steers	72	90.00	500	70	31500
Heifers	72	90.00	475	56	23940
R heifers	16	65.00	900	0	59
TOTAL REVENUE FROM ALL LIVESTOCK SOLD =					64279

MACHINERY LIST

TYPE OF EQUIPMENT	TOTAL UNITS OF USE	EQUIPMENT PRICE	UNITS OF LIFE	MAXIMUM USE PER YEAR	COST PER UNIT REPAIR	TOTAL		YEARS- LIFE	SINKING FUND FACTOR	EQUIPMENT COST		EQUIPMENT COST PER ACRE
						NUMBER OF IMPLEMENTS REQUIRED	FUEL			FUEL & REPAIRS	DEPREC.	
Sprayer	16.00	3000	2000	2000	1.000	0.000	1	25	0.0118	16	35	0.2217
PTO baler	71.20	10000	1500	1500	5.600	0.000	1	21	0.0176	399	176	2.5000
Bale wagon	140.00	2500	2000	2000	1.000	0.000	1	14	0.0384	140	96	1.0261
Machinery shed and shop	22.00	5000	25000	2000	0.010	0.000	1	25	0.0118	0	59	0.2565
Plow	8.00	4000	2000	2000	1.000	0.000	1	25	0.0118	8	47	0.2391
Tandem disk	5.00	8000	2000	2000	1.000	0.000	1	25	0.0118	5	94	0.4304
Grain drill	5.00	10000	1500	1500	2.500	0.000	1	25	0.0118	13	118	0.5696
70 hp	117.60	25000	12000	500	1.750	3.500	1	25	0.0118	617	295	3.9652
130 hp	252.12	35000	12000	500	3.000	6.000	1	25	0.0118	2269	413	11.6609
SWATHER	164.34	35000	2500	100	5.000	6.000	2	30	0.0073	1808	511	10.0826
Pickup	49.28	15000	5000	200	0.060	0.090	1	25	0.0118	7	177	0.8000
Loader	100.00	5000	2500	200	0.000	2.330	1	25	0.0118	233	59	1.2696
Stock trai	50.00	6000	1500	100	0.000	0.750	1	25	0.0118	38	71	0.4739
Mineral fe	0.50	500	10	1	0.000	5.000	1	20	0.0195	3	10	0.0565
Branding i	6.00	200	120	12	0.000	0.330	1	20	0.0195	2	4	0.0261
Corrals	1.00	10000	30	1	0.000	200.000	1	25	0.0118	200	118	1.3826
Fencing	1.00	5000	30	1	0.000	200.000	1	25	0.0118	200	59	1.1261
Hay sheds	1.00	1000	30	1	0.000	50.000	1	25	0.0118	50	12	0.2696
Manure spr	0.00	2000	0	0	0.000	0.000	0	0	0.0000	0	0	0.0000
TOTALS		182200								6008	2354	

LABOR COSTS

LABOR LIMITS BY MONTH (FOR ENTIRE OPERATION)													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
OPERATOR	240	240	240	240	240	240	240	240	240	240	240	240	2880
FAMILY	80	80	80	80	80	80	80	80	80	80	80	80	960
-----													
LABOR USED EACH MONTH (INCLUDES ALL CROPS AND LIVESTOCK)													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
OPERATOR	120	240	240	133	103	240	240	226	50	120	120	120	1952
FAMILY	0	0	0	0	0	77	78	0	0	0	0	0	155
HIRED	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LABOR HOURS= 2107													

SOCIAL SECURITY EXPENSES				
WORK BY	RATE	MAXIMUM SOCIAL SECURITY TAXED	COST/FARM	COST/ACRE
OPERATOR	0.1000	55500	1972	12.33
FAMILY	0.1000	55500	85	0.53
HIRED	0.1000	55500	0	0.00
TOTAL =			2057	

WORKER'S	CROP	TOTAL LABOR PERCENTAGE	RATE	COST/FARM	COST/ACRE
COMPENSATION	Alfalfa	23.1	14.000	0	0.0000
	Grass hay	8.9	14.000	0	0.0000
	Irr pas	2.9	14.000	0	0.0000
	Alf estab	5.9	14.000	0	0.0000
		0.0	0.000	0	0.0000
	0.0	0.000	0	0.0000	
	0.0	0.000	0	0.0000	
	0.0	0.000	0	0.0000	
	0.0	0.000	0	0.0000	
	0.0	0.000	0	0.0000	
	LIVESTOCK	59.3	14.000	0	0.0000
TOTAL =			0		

LABOR HOURS BY CROP		
CROP	OPERATOR & MANUAL	LIVESTOCK
Alfalfa	264	250
Grass hay	198	0
Irr pas	46	18
Alf estab	66	65
	0	0
	0	0
	0	0
	0	0
LIVESTOCK		1200
TOTALS	574	1533

HIRED LABOR HOURS	
TOTAL HIRED	
LABOR HOURS =	0.00
HIRED LABOR COST = \$	0

INSURANCE COSTS

ITEM	INSURANCE COST
LAND, IMPROVEMENTS, MACHINERY	\$ 500.00
VEHICLES	\$ 400
TOTAL	\$ 900

INTEREST ON INVESTMENT

	TOTAL FARM INVESTMENT	INTEREST ON DEBT		RETURN TO EQUITY	
		PER FARM	PER ACRE	PER FARM	PER ACRE
LAND	144000	1202	5.23	3959	17.21
LAND IMPROVEMENTS	0	0	0.00	0	0.00
IRRIGATION SYSTEM	0	0	0.00	0	0.00
DRAINAGE SYSTEM	0	0	0.00	0	0.00
PERMENANT PLANTINGS	0	0	0.00	0	0.00
MACHINERY SHED & SHOP	5000	109	0.47	114	0.50
ALL NON-POWER IMPLEMENTS	37500	818	3.56	852	3.70
SMALL TOOLS	1500	33	0.14	34	0.15
ALL TRACTORS	60000	1308	5.69	1364	5.93
ALL POWER IMPLEMENTS (INCLUDES VEHICLES)	112700	2458	10.69	2562	11.14
BREEDING HERD	0	0	0.00	0	0.00
TOTAL	360700	5928	25.78	8885	38.63

COSTS FOR COMPUTING INTEREST ON OPERATING CAPITAL

ITEM	Alfalfa	Grass hay	Irr pas	Alf estab					TOTAL
HIRED LABOR	0	0	0	0	0	0	0	0	0
CUSTOM WORK	120	90	90	0	0	0	0	0	300
FERTILIZER	1600	1440	780	400	0	0	0	0	4220
HERBICIDE	1240	930	0	0	0	0	0	0	2170
INSECT CONTROL	0	0	0	0	0	0	0	0	0
SEED COST	0	0	0	912	0	0	0	0	912
CROP INSURANCE	0	0	0	0	0	0	0	0	0
MISCELLANEOUS	915	414	0	0	0	0	0	0	1329
IRRIGATION									
PUMPING ENERGY	0	0	0	0	0	0	0	0	0
REPAIRS, FUEL, OIL, AND GREASE	3404	1311	424	868	0	0	0	0	6007
COST OF									
PURCHASED WATER	0	0	0	0	0	0	0	0	0
TELEPHONE AND									
ELECTRICITY	218	164	164	55	0	0	0	0	601
OTHER INSURANCE	900	IRRIGATION REPAIR	0	LIVESTOCK FEED	1056	PURCHASED LIVESTOCK	1600		
HIRED LABOR/LIVESTOCK	0	GRAZING FEES	3663	OTHER LIVESTOCK COSTS	1775				

INTEREST ON OPERATING CAPITAL

ITEM	Alfalfa	Grass hay	Irr pas	Alf estab					TOTAL
HIRED LABOR	0	0	0	0	0	0	0	0	0
CUSTOM WORK	2	1	1	0	0	0	0	0	4
FERTILIZER	23	21	11	6	0	0	0	0	61
HERBICIDE	18	14	0	0	0	0	0	0	32
INSECT CONTROL	0	0	0	0	0	0	0	0	0
SEED COST	0	0	0	13	0	0	0	0	13
CROP INSURANCE	0	0	0	0	0	0	0	0	0
MISCELLANEOUS	13	6	0	0	0	0	0	0	19
IRRIGATION									
PUMPING ENERGY	0	0	0	0	0	0	0	0	0
REPAIRS, FUEL, OIL, AND GREASE	49	19	6	13	0	0	0	0	87
COST OF									
PURCHASED WATER	0	0	0	0	0	0	0	0	0
TELEPHONE AND									
ELECTRICITY	3	2	2	1	0	0	0	0	8
TOTAL	108	63	20	33	0	0	0	0	
OTHER INSURANCE	13	IRRIGATION REPAIR	0	LIVESTOCK FEED	0	PURCHASED LIVESTOCK	0		
HIRED LABOR/LIVESTOCK	0	GRAZING FEES	0	OTHER LIVESTOCK COSTS	0				
									CROP AND LIVESTOCK TOTAL = 237

**WATER USE**

CROP	ACRES	USE PER ACRE	WATER REQUIRED
Alfalfa	80	3.00	240.00
Grasshay	60	3.00	180.00
Irr pas	60	3.00	180.00
Alf estab	20	3.00	60.00
	0	0.00	0.00
	0	0.00	0.00
	0	0.00	0.00
	0	0.00	0.00

TOTAL WATER REQUIREMENT = 660.00

**PUMPING ENERGY CHARGES**

METER CHARGE =	\$	0.00
DEMAND CHARGE =	\$	0.00
ENERGY CHARGE =	\$	0.00
BASE ENERGY RATE =	\$	0.0000
ENERGY RATE ADJUSTMENT =	\$	0.0000
KILOWATT HOURS =		0.00
TOTAL ENERGY CHARGE =	\$	0

**TAX EXPENSES**

ITEM	TAX RATE	TAXABLE VALUE	TOTAL TAX PER FARM
LAND	0.01310	63000	825
IMPROVEMENTS	0.03410	5000	171
EQUIPMENT	0.00000	211700	0
VEHICLES			200
			TOTAL= 1196

ON-FARM CROP DISPOSITION

CROP OR LAND USE	YIELD UNITS	PRODUCED	AMOUNT FED		FEED PURCHASED	PRICE	REVENUE	COST
			TO LIVSTK	AMOUNT SOLD				
Alfalfa	tons	296.00	307.57	0.0	11.6	91.000	0	1056
Grasshay	tons	120.00	0.00	120.0	0.0	91.000	10920	0
Irr pas	AUM	360.00	0.00	360.0	0.0	0.000	0	0
Alf estab	tons	40.00	0.00	40.0	0.0	55.000	2200	0
PASTURE		0.00	366.00	0.0	366.0	0.000	0	0
PUBLIC	AUM	0.00	733.00	0.0	732.6	5.000	0	3663
AFTERMATH	AUM	240.00	92.00	0.0	0.0	0.000	0	0

LIVESTOCK FEED REQUIREMENTS

FEED	QUANTITY (pounds)	QUANTITY (tons)
PUBLIC	733	0.37
PASTURE	366	0.18
Alfalfa	615138	307.57

LABOR HOURS FOR ALL LIVESTOCK OPERATIONS

TYPE OF LIVESTOCK	LABOR HOURS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Cows	1200	120	240	240	120	24	24	24	24	24	120	120	120
Bulls	0	0	0	0	0	0	0	0	0	0	0	0	0
Steers	0	0	0	0	0	0	0	0	0	0	0	0	0
Heifers	0	0	0	0	0	0	0	0	0	0	0	0	0
R heifers	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LABOR =	1200	120	240	240	120	24	24	24	24	24	120	120	120

LIVESTOCK TAXES

TYPE OF LIVESTOCK	NUMBER	TAX PER HEAD	TOTAL TAX
Cows	160	0.00	0
Bulls	7	0.00	0
Steers	72	0.00	0
Heifers	72	0.00	0
R heifers	16	0.00	0
TOTAL TAX FOR ALL LIVESTOCK =			0

**LIVESTOCK MARKETING COSTS**

<b>TYPE OF LIVESTOCK</b>	<b>NUMBER</b>	<b>MARKETING COST PER HEAD</b>	<b>MARKETING COST</b>
Cows	16	5.00	80
Bulls	1	10.00	10
Steers	70	5.00	350
Heifers	56	5.00	280
R heifers	0	0.00	0
<b>TOTAL MARKETING COST FOR ALL LIVESTOCK =</b>			<b>720</b>

**LIVESTOCK MISCELLANEOUS EXPENSES**

<b>TYPE OF LIVESTOCK</b>	<b>NUMBER</b>	<b>MISCELLANEOUS COST PER HEAD</b>	<b>TOTAL MISCELLANEOUS COSTS</b>
Cows	160	\$ 10.00	\$ 1600
Bulls	7	\$ 25.00	\$ 175
Steers	72	\$ 0.00	\$ 0
Heifers	72	\$ 0.00	\$ 0
R heifers	16	\$ 0.00	\$ 0
<b>TOTAL MISC COSTS FOR ALL LIVESTOCK = \$</b>			<b>1775</b>

# **Attachment C**

Attachment C

**USBR CONSTRUCTION COST TRENDS  
AND CONSUMER PRICE INDEX**

## CONSTRUCTION COST TRENDS COMPUTATIONS

### Bureau of Reclamation - Technical Services Center

The Bureau of Reclamation's *Construction Cost Trends [CCT]* were developed to track construction relevant to the primary types of projects being constructed by the organization. All the various cost indexes consist of two elements, contractor labor and equipment costs, and contractor supplied materials and equipment.

When the indexes were originally developed, the substantial amount of construction work being performed by the Bureau provided a large data reference for the 35 construction categories. Actual field cost data were used to develop the costs baselines and their respective incremental increases over time.

Since the early to mid 1980's, the number and magnitude of construction projects being performed by the Bureau has declined. There are fewer construction projects in general and no new large dam or hydroelectric projects. The number of data references from our own construction has therefore declined as well.

Despite this reduction in the construction program, the *Construction Cost Trends* is still considered a valuable asset used by many within Reclamation as well as numerous clients in other government entities and the private sector. In order to perpetuate the *CCT* in as a meaningful and professional manner as possible, cost models consisting of appropriate labor, equipment, and materials types are now used as the principal costs reference in lieu of actual field data. Data for the models are primarily extracted from

- Producer Price Indexes [PPI], US Department of Labor, Bureau of Labor Statistics
- Price Trends for Federal-Aid Highway Construction, US Department of Transportation
- *Engineering News-Record*, weekly publication of McGraw-Hill

Actual field data, when available, is used to confirm the reasonableness of the models. Engineering judgment may also be used to adjust the results.

# Bureau of Reclamation Construction Cost Trends

(Base: 1977 = 100 For Indexing Field Costs Only)

	1984				1985				1986				1987			
	Jan	Apr	Jul	Oct												
<b>Construction Indexes</b>																
Earth dams	139	138	139	139	139	139	139	140	140	140	140	141	141	141	142	142
Dam structure	131	131	130	129	129	129	128	128	128	128	128	128	127	128	129	130
Spillway	144	144	145	145	145	146	147	148	150	149	150	151	151	150	151	151
Outlet works	153	153	155	155	155	155	157	158	159	159	160	161	161	161	162	162
Concrete dams	154	154	155	156	155	156	157	158	159	159	160	160	160	160	161	161
Diversion dams	153	153	155	155	156	156	157	157	158	158	158	159	159	159	160	161
Pumping plants	154	154	156	157	157	157	158	159	160	160	160	161	161	161	162	163
Structures and improvements	148	149	150	151	152	152	153	154	154	154	154	154	154	154	155	156
Equipment	160	161	163	163	164	164	166	166	166	167	168	170	169	169	170	171
Pumps and prime movers	161	162	163	163	164	164	166	166	167	168	169	170	169	169	169	170
Accessory elect + misc. equip.	161	161	164	164	165	165	166	166	166	167	168	170	170	171	172	174
Powerplants	157	158	159	160	160	161	162	162	163	164	164	166	166	167	168	170
Structures and improvements	149	149	150	151	152	152	153	154	154	154	154	155	155	154	155	156
Equipment	161	162	164	164	164	164	166	166	168	169	169	171	172	173	175	176
Turbines and generators	163	163	165	165	166	166	167	168	169	170	171	173	174	175	178	179
Accessory elect + misc. equip.	156	156	158	158	159	159	160	160	160	161	161	163	163	163	164	166
Steel pipelines	161	161	163	162	163	162	163	162	163	163	164	165	165	165	166	167
Concrete pipelines	157	157	158	159	159	160	161	161	162	162	163	164	164	164	165	166
Canals	144	145	146	146	147	148	149	149	150	150	150	150	150	150	151	152
Canal earthwork	143	144	144	145	146	146	147	147	148	148	149	149	149	150	151	152
Canal structures	149	149	150	151	151	152	153	153	154	153	154	154	154	154	155	156
Tunnels	161	161	162	163	164	165	166	167	167	168	168	169	170	170	171	173
Laterals and drains	143	143	144	145	146	146	147	148	148	148	148	148	148	149	149	150
Lateral earthwork	141	142	143	143	144	145	145	146	147	147	148	148	148	149	149	150
Lateral structures	145	145	146	147	147	148	149	150	150	150	149	150	149	150	150	151
Distribution pipelines	155	155	156	157	157	158	158	159	160	160	160	162	162	162	163	164
Switchyards and substations	154	154	156	156	156	156	157	157	158	158	158	159	160	160	161	163
Wood pole transmission lines	146	146	148	149	148	147	148	150	148	146	145	146	147	145	146	148
Poles and fixtures	136	136	137	137	136	134	136	138	136	134	132	134	136	134	134	135
Overhead conductors and devices	159	161	164	164	164	163	164	165	163	162	161	163	162	161	162	164
Steel tower transmission lines	163	164	166	166	168	168	169	170	170	170	170	170	170	170	171	173
Primary roads	155	154	156	156	157	157	159	160	161	161	162	163	163	163	164	166
Secondary roads	160	160	161	161	162	164	165	168	171	174	175	178	181	182	186	189
Bridges	154	155	156	157	158	158	159	160	161	162	162	164	164	165	166	168
General property	155	155	158	158	158	159	159	159	159	159	160	161	162	161	162	164
<b>Land Indexes</b>																
Arizona	132	132	136	136	140	141	142	143	144	145	146	147	148	149	150	151
California	225	225	223	223	223	223	218	212	206	205	203	201	201	201	201	203
Colorado	160	160	166	166	166	166	140	138	136	136	136	136	136	137	138	139
Idaho	139	139	140	140	140	140	136	132	130	129	128	127	126	125	124	123
Kansas	125	125	122	122	122	122	115	110	105	100	96	96	96	96	98	100
Montana	145	145	149	149	147	145	143	141	139	137	135	133	131	129	127	127
Nebraska	128	128	114	114	113	112	111	107	103	99	96	95	95	95	97	100
Nevada	132	132	136	136	136	136	136	136	138	138	140	142	144	146	148	150
New Mexico	132	132	136	136	136	136	132	130	127	124	124	124	131	138	145	152
North Dakota	141	141	142	142	142	132	125	120	118	116	114	112	111	111	111	112
Oklahoma	155	155	156	156	156	152	146	135	133	131	129	127	125	122	121	121
Oregon	137	137	137	137	133	129	125	125	125	125	125	125	125	125	125	125
South Dakota	139	139	136	136	135	133	130	126	124	122	121	121	121	122	124	126
Texas	192	192	208	208	212	220	229	229	226	221	216	211	200	188	183	182
Utah	130	130	133	133	133	133	133	133	132	132	130	129	130	131	132	133
Washington	152	152	157	157	157	157	156	155	153	151	149	147	145	143	141	139
Wyoming	132	132	136	136	136	135	134	133	132	131	131	131	130	130	129	129
<b>Other Indicators</b>																
Composite trend	153	153	155	155	156	156	157	158	158	158	159	160	160	160	161	162
Machinery and equipment (BLS)	166	168	168	168	169	169	170	170	171	172	172	172	174	175	176	176
Federal salary	147	147	147	147	152	152	152	152	152	152	152	152	157	157	157	157

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# Bureau of Reclamation Construction Cost Trends

(Base: 1977 = 100 For Indexing Field Costs Only)

	1988				1989				1990				1991			
	Jan	Apr	Jul	Oct												
<b>Construction Indexes</b>																
<b>Earth dams</b>	143	144	145	146	147	149	151	153	154	155	156	158	160	159	161	161
Dam structure	130	131	132	132	133	134	135	137	137	138	140	142	143	143	145	145
Spillway	152	153	154	158	158	160	164	165	167	167	170	172	173	172	174	174
Outlet works	164	165	167	171	171	173	177	179	181	181	183	185	186	186	188	188
<b>Concrete dams</b>	162	163	164	167	167	169	173	174	176	177	179	181	183	183	185	185
<b>Diversion dams</b>	162	163	164	166	167	169	171	173	174	175	176	178	180	180	182	182
<b>Pumping plants</b>	163	165	166	168	169	171	173	175	176	178	179	181	182	183	184	185
Structures and improvements	157	158	159	160	160	162	164	166	166	167	168	169	170	171	172	172
Equipment	172	173	175	178	179	181	184	187	188	190	192	194	196	197	199	200
Pumps and prime movers	171	172	175	177	179	182	186	189	191	193	194	197	200	200	203	204
Accessory elect + misc. equip.	174	175	177	179	180	181	182	184	186	187	188	190	191	191	194	195
<b>Powerplants</b>	170	171	172	173	175	177	180	182	183	184	187	190	192	193	195	196
Structures and improvements	157	158	159	160	161	163	164	166	166	167	168	169	171	171	172	172
Equipment	177	178	179	181	183	186	190	191	193	195	199	203	205	206	209	210
Turbines and generators	179	180	181	183	185	188	192	193	195	197	202	205	208	210	212	214
Accessory elect + misc. equip.	167	168	170	171	173	174	177	179	181	182	183	185	187	187	189	190
<b>Steel pipelines</b>	168	169	171	173	175	177	179	182	183	184	186	188	191	191	194	195
<b>Concrete pipelines</b>	165	165	165	166	166	167	167	168	168	169	169	171	173	174	176	177
<b>Canals</b>	153	154	154	155	155	157	158	160	161	161	162	163	165	165	167	167
Canal earthwork	152	153	153	154	155	157	157	160	161	161	162	163	165	166	168	167
Canal structures	156	157	158	159	160	161	163	164	165	165	167	168	169	170	171	171
<b>Tunnels</b>	174	175	176	178	179	181	183	185	186	187	189	191	192	192	194	195
<b>Laterals and drains</b>	151	152	153	154	155	156	158	159	160	160	161	163	165	165	166	166
Lateral earthwork	151	152	153	154	155	156	157	159	159	160	161	163	166	166	167	166
Lateral structures	151	153	154	155	156	157	159	160	161	161	162	164	165	166	167	167
<b>Distribution pipelines</b>	164	164	164	165	165	166	166	167	168	168	169	171	172	173	175	177
<b>Switchyards and substations</b>	165	168	169	170	171	173	177	180	181	181	183	185	187	187	188	189
<b>Wood pole transmission lines</b>	151	154	157	165	169	172	175	178	178	174	176	176	177	175	173	173
Poles and fixtures	139	139	141	144	146	147	152	158	161	158	162	160	159	155	153	157
Overhead conductors and devices	167	173	179	192	197	203	204	203	200	195	194	195	201	200	197	194
<b>Steel tower transmission lines</b>	175	179	182	189	192	195	197	198	198	196	197	198	201	200	200	198
<b>Primary roads</b>	167	168	169	172	171	174	177	179	180	181	183	185	186	185	186	186
<b>Secondary roads</b>	191	194	195	201	197	204	207	208	206	210	214	217	219	215	214	212
<b>Bridges</b>	170	171	172	174	174	176	179	180	180	182	184	186	187	187	188	188
<b>General property</b>	165	167	169	171	173	174	176	178	179	179	180	181	182	182	183	184
<b>Land Indexes</b>																
<b>Arizona</b>	152	153	154	155	157	159	161	163	165	167	169	171	173	175	177	179
<b>California</b>	207	211	215	219	223	227	231	235	239	243	247	251	255	259	263	267
<b>Colorado</b>	140	141	142	143	144	145	146	147	148	149	150	152	154	156	158	160
<b>Idaho</b>	122	123	124	125	126	127	128	129	132	135	138	141	144	144	144	144
<b>Kansas</b>	102	104	106	107	108	109	110	111	112	112	112	112	112	112	112	112
<b>Montana</b>	127	127	127	127	127	130	133	136	139	139	139	139	139	139	139	139
<b>Nebraska</b>	103	106	109	112	115	119	122	123	123	124	124	124	123	123	123	123
<b>Nevada</b>	152	154	156	158	162	166	170	174	178	182	186	190	194	198	202	206
<b>New Mexico</b>	156	160	164	168	172	176	180	184	188	192	196	200	201	202	203	204
<b>North Dakota</b>	113	113	114	114	115	115	116	116	117	117	117	118	118	119	119	119
<b>Oklahoma</b>	121	122	125	127	129	130	129	127	125	123	122	121	120	120	121	122
<b>Oregon</b>	125	125	126	127	128	129	131	133	135	137	139	141	143	145	147	149
<b>South Dakota</b>	130	132	136	137	138	139	141	144	148	150	151	151	151	151	151	150
<b>Texas</b>	181	180	179	178	177	176	175	174	173	172	171	170	169	168	167	166
<b>Utah</b>	134	135	136	137	138	140	142	144	145	146	148	150	152	154	155	157
<b>Washington</b>	137	136	136	138	140	142	144	146	148	150	152	154	157	160	163	166
<b>Wyoming</b>	128	128	127	127	127	126	126	127	128	130	131	133	134	136	137	139
<b>Other Indicators</b>																
<b>Composite trend</b>	163	165	166	168	169	171	174	176	177	177	179	181	183	183	184	185
<b>Machinery and equipment (BLS)</b>	178	179	180	181	186	187	190	191	193	194	197	198	199	200	201	203
<b>Federal salary</b>	160	160	160	160	166	166	166	166	172	172	172	172	179	179	179	179

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# Bureau of Reclamation Construction Cost Trends

(Base: 1977 = 100 For Indexing Field Costs Only)

	1992				1993				1994				1995			
	Jan	Apr	Jul	Oct												
<b>Construction Indexes</b>																
Earth dams	162	160	161	162	164	165	165	166	168	163	167	168	173	175	178	178
Dam structure	147	145	146	148	150	151	152	152	154	145	155	156	162	163	165	163
Spillway	175	171	171	172	174	175	175	176	178	176	173	175	180	182	187	188
Outlet works	189	185	186	188	189	190	191	192	194	194	191	193	196	198	202	204
Concrete dams	186	184	184	186	188	189	189	190	193	192	188	190	193	196	199	201
Diversion dams	183	182	183	185	186	187	188	189	191	191	191	193	195	198	201	202
Pumping plants	185	185	187	188	189	190	191	192	193	195	195	197	200	202	204	206
Structures and improvements	172	171	173	174	175	176	177	178	181	183	182	184	188	191	194	197
Equipment	201	201	203	204	205	206	207	208	208	209	211	213	213	215	217	218
Pumps and prime movers	204	205	206	208	209	210	211	211	210	213	214	215	217	219	220	221
Accessory elect + misc. equip.	195	196	197	199	199	200	201	203	204	204	206	208	209	210	211	213
Powerplants	197	198	199	201	202	203	204	205	207	207	208	209	212	213	215	216
Structures and improvements	173	172	173	175	176	176	178	179	182	183	183	185	189	191	194	197
Equipment	212	213	215	217	218	219	220	221	222	222	223	224	226	227	228	228
Turbines and generators	216	217	218	220	221	222	223	224	226	225	225	227	228	229	230	231
Accessory elect + misc. equip.	191	191	192	194	195	195	197	198	199	200	202	204	205	206	207	208
Steel pipelines	195	195	196	198	199	200	201	202	203	204	204	206	209	211	212	213
Concrete pipelines	178	178	179	181	181	182	183	184	184	185	185	186	188	189	191	191
Canals	167	166	167	169	170	171	172	172	174	176	176	178	182	184	187	189
Canal earthwork	167	166	168	170	172	172	173	173	174	175	176	177	181	182	185	181
Canal structures	172	171	172	174	174	175	176	178	180	183	182	183	188	191	194	198
Tunnels	196	195	196	198	200	200	202	203	205	205	206	208	210	212	216	220
Laterals and drains	167	165	166	169	170	171	175	176	178	180	180	182	188	190	192	190
Lateral earthwork	167	166	167	170	171	172	173	173	174	175	176	177	181	181	185	182
Lateral structures	168	166	168	170	171	172	178	179	181	184	184	186	192	196	197	196
Distribution pipelines	178	178	179	181	181	182	183	184	184	185	185	187	188	190	192	193
Switchyards and substations	189	188	188	190	190	191	192	194	194	196	195	197	198	202	203	204
Wood pole transmission lines	172	171	173	175	177	180	185	198	195	201	208	210	209	217	214	214
Poles and fixtures	157	158	163	166	171	176	186	208	208	220	229	230	221	218	209	208
Overhead conductors and devices	191	188	187	186	185	185	184	186	180	179	182	185	195	218	222	222
Steel tower transmission lines	197	196	195	196	196	196	197	198	196	196	198	201	205	215	218	219
Primary roads	188	185	185	186	188	188	191	196	196	200	197	199	201	204	206	208
Secondary roads	216	211	209	210	212	209	214	215	217	211	216	217	224	229	230	231
Bridges	189	188	188	190	191	191	194	194	196	196	198	199	204	207	208	212
General property	185	185	187	189	190	191	194	198	201	203	205	208	208	209	209	210
<b>Land Indexes</b>																
Arizona	182	185	188	191	194	197	200	203	206	209	212	215	221	227	233	239
California	271	275	279	283	287	289	291	291	291	291	291	291	291	291	292	295
Colorado	162	164	166	168	168	168	171	174	178	182	186	190	194	198	202	206
Idaho	145	146	147	148	149	150	151	155	159	163	167	171	175	179	183	187
Kansas	113	114	115	116	118	120	122	124	126	128	130	132	134	136	137	138
Montana	139	139	139	142	145	148	151	154	157	160	163	166	169	172	175	178
Nebraska	123	123	123	123	123	123	124	126	128	130	134	136	138	140	142	144
Nevada	210	214	218	222	226	230	234	238	242	247	252	257	262	267	272	277
New Mexico	205	205	204	203	200	199	198	202	206	210	214	218	222	226	232	238
North Dakota	118	118	119	120	121	122	123	124	125	126	127	129	131	133	135	137
Oklahoma	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138
Oregon	151	155	159	163	168	173	178	183	188	193	200	207	214	221	228	235
South Dakota	148	146	144	144	143	143	144	145	146	148	150	152	153	154	155	156
Texas	165	164	163	163	163	163	164	167	169	171	173	176	178	181	183	185
Utah	160	163	165	169	173	176	180	185	190	195	200	207	212	219	225	233
Washington	166	166	166	166	167	168	169	176	183	190	197	198	199	200	201	202
Wyoming	140	142	143	145	147	149	151	153	155	160	164	168	171	173	175	178
<b>Other Indicators</b>																
Composite trend	186	185	186	188	189	190	190	194	195	196	197	199	201	204	206	207
Machinery and equipment (BLS)	204	206	207	209	211	214	213	213	214	215	215	216	216	218	219	220
Federal salary	187	187	187	187	194	194	194	194	200	200	200	200	202	202	202	202

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# Bureau of Reclamation Construction Cost Trends

(Base: 1977 = 100 for Indexing Field Costs Only)

Item	1996				1997				1998				1999			
	Jan	Apr	Jul	Oct												
<b>Construction Indexes</b>																
Earth dams	175	180	174	176	177	178	179	179	179	180	182	182	183	185	188	191
Dam structure	160	167	157	159	162	163	162	162	163	162	161	161	161	161	168	172
Spillway	186	189	187	186	187	187	190	190	190	192	197	198	200	203	204	206
Outlet works	203	205	205	206	206	207	210	210	211	212	218	219	220	224	224	226
Concrete dams	200	202	202	203	200	205	208	208	208	210	215	217	218	222	223	225
Diversion dams	202	205	205	207	204	209	211	212	212	213	216	217	218	219	221	222
Pumping plants	207	211	213	215	214	216	217	218	219	219	221	222	223	223	225	226
Structures and improvements	195	202	205	209	205	207	209	210	211	211	213	214	215	216	218	218
Equipment	221	222	222	223	224	226	227	228	229	230	232	233	233	234	235	236
Pumps and prime movers	225	227	227	228	230	231	232	233	234	235	237	237	237	237	239	240
Accessory elect. & misc. equip.	213	214	214	216	216	217	220	221	221	222	225	226	226	227	228	229
Powerplants	215	216	217	219	217	220	222	224	224	225	226	227	228	229	231	231
Structures and improvements	196	202	205	209	205	208	209	210	211	211	213	214	215	216	218	219
Equipment	226	226	227	228	226	229	231	233	233	233	235	236	236	238	239	240
Turbines and accessories	228	229	230	231	228	230	233	235	235	236	238	238	239	241	241	242
Accessory elect. & misc. equip.	210	207	207	209	209	215	216	218	218	219	221	222	222	223	225	226
Steel pipelines	214	217	219	222	229	229	231	231	232	233	236	237	239	239	241	243
Concrete pipelines	191	194	193	196	197	200	201	203	205	206	209	211	212	213	215	216
Canals	186	196	194	199	198	198	198	199	200	200	201	202	203	203	207	210
Canal earthwork	178	189	177	181	185	185	184	184	185	183	183	182	182	182	190	195
Canal structures	197	203	208	213	209	211	212	214	215	216	218	220	221	221	223	224
Tunnels	221	224	223	226	226	231	233	233	235	236	239	240	241	241	243	245
Laterals and drains	186	195	197	202	214	215	216	216	218	218	219	220	221	220	224	226
Lateral earthwork	177	184	174	178	182	182	181	181	182	181	181	181	181	182	188	192
Lateral structures	193	203	209	215	231	233	234	235	238	239	240	241	242	241	243	245
Distribution pipelines	193	195	195	198	198	200	202	204	206	206	210	211	212	213	215	216
Switchyards and substations	204	186	188	190	189	211	212	213	213	215	216	218	218	220	223	226
Wood pole transmission lines	216	213	220	234	234	233	230	226	218	211	198	205	191	196	208	210
Poles and fixtures	217	217	231	255	262	254	245	238	224	212	192	209	186	198	216	217
Overhead conductors and devices	215	209	207	207	200	208	212	212	212	210	205	200	199	196	199	204
Steel tower transmission lines	218	216	216	217	214	219	221	222	222	223	224	222	222	222	223	225
Primary roads	208	209	214	219	217	222	224	224	223	219	221	225	224	226	229	231
Secondary roads	227	230	230	237	240	247	256	258	257	237	243	247	254	253	252	262
Bridges	211	218	221	226	224	227	230	232	233	229	232	234	237	237	239	242
General property	211	210	212	217	219	220	221	222	220	219	219	222	219	221	225	226
Composite trend	207	208	209	212	213	217	218	218	219	218	219	221	220	221	225	227
<b>Land Indexes</b>																
Arizona	245	251	257	263	270	277	284	291	298	303	310	315	322	329	334	338
California	301	307	313	319	325	331	335	339	343	346	350	355	359	359	359	359
Colorado	210	214	218	222	225	228	231	234	236	237	242	245	247	248	250	252
Idaho	190	193	196	199	202	205	208	211	214	216	220	224	227	230	233	236
Kansas	139	140	141	142	143	144	145	146	147	148	150	150	151	150	149	149
Montana	181	184	187	190	193	195	197	199	201	202	204	205	202	198	194	192
Nebraska	146	148	150	153	156	159	162	165	167	168	172	174	167	167	165	163
Nevada	282	287	292	297	302	307	312	317	322	325	330	335	340	346	350	354
New Mexico	244	250	256	262	267	272	277	282	287	290	292	295	296	298	296	294
North Dakota	139	141	143	145	147	149	151	153	155	156	156	156	154	152	150	148
Oklahoma	139	140	141	142	143	144	145	146	147	148	150	152	153	152	154	154
Oregon	242	249	256	263	270	277	284	291	298	301	304	307	306	303	300	297
South Dakota	157	158	160	162	164	166	168	170	171	171	174	178	183	183	184	185
Texas	187	190	193	195	199	202	204	206	207	208	213	217	213	208	204	202
Utah	240	247	255	260	266	272	278	280	282	283	285	288	290	290	292	294
Washington	204	206	209	212	217	223	229	235	241	244	250	255	250	246	242	238
Wyoming	181	183	185	188	192	195	198	200	203	205	207	208	206	204	203	202
<b>Other Indicators</b>																
Machinery and equipment (BLS)	221	221	225	225	226	227	229	230	231	232	234	234	235	237	239	239
Federal salary	207	207	207	207	212	212	212	212	217	217	217	217	225	225	225	225

# Bureau of Reclamation Construction Cost Trends

(Base: 1977 = 100 for Indexing Field Costs Only)

Item	2000				2001				2002				2003			
	Jan	Apr	Jul	Oct												
<b>Construction Indexes</b>																
Earth dams	191	197	198	201	203	200	200	201	198	198	203	207	209	214		
Dam structure	174	179	180	183	185	183	184	184	180	180	185	188	190	198		
Spillway	202	211	211	214	215	212	211	212	209	210	215	220	221	226		
Outlet works	223	229	230	232	233	232	232	233	232	233	238	242	242	246		
Concrete dams	222	227	228	230	231	229	229	229	228	228	232	236	237	240		
Diversion dams	223	225	226	228	229	229	229	231	231	231	234	236	237	241		
Pumping plants	227	229	230	231	232	233	234	235	236	237	239	241	242	244		
Structures and improvements	220	222	223	224	225	225	226	228	228	229	231	233	235	238		
Equipment	237	238	240	242	243	244	245	247	249	250	253	253	254	256		
Pumps and prime movers	242	243	245	247	248	249	250	252	254	255	257	257	258	259		
Accessory elect. & misc. equip.	230	231	233	235	236	236	238	240	242	242	246	247	248	250		
Powerplants	232	234	234	236	237	237	239	240	241	242	245	246	247	249		
Structures and improvements	220	222	223	224	225	225	226	228	228	229	231	233	235	238		
Equipment	240	243	242	244	245	245	247	249	250	251	254	255	255	257		
Turbines and accessories	242	245	245	247	248	248	250	252	253	254	257	258	258	260		
Accessory elect. & misc. equip.	227	229	230	232	233	233	235	236	238	239	242	243	243	245		
Steel pipelines	245	246	248	250	252	253	255	257	258	259	262	264	266	268		
Concrete pipelines	217	220	221	223	226	227	230	231	232	233	236	237	238	242		
Canals	212	216	217	220	222	221	222	224	222	223	226	229	232	237		
Canal earthwork	197	204	205	208	211	209	209	209	205	205	210	213	216	225		
Canal structures	226	227	228	230	231	232	233	235	236	236	239	241	243	246		
Tunnels	246	249	250	251	252	253	254	256	256	257	260	261	262	265		
Laterals and drains	229	234	236	238	241	240	241	243	242	243	246	251	255	261		
Lateral earthwork	194	200	201	204	207	205	205	206	203	203	207	211	213	221		
Lateral structures	249	253	256	258	260	260	261	263	264	265	268	274	278	284		
Distribution pipelines	217	220	221	224	226	227	230	232	232	234	237	238	239	242		
Switchyards and substations	228	230	229	232	232	231	233	235	235	236	239	240	241	241		
Wood pole transmission lines	214	213	204	203	200	200	203	203	201	205	205	205	205	204		
Poles and fixtures	218	211	197	194	189	190	196	197	194	201	200	201	199	197		
Overhead conductors and devices	211	216	214	217	216	214	214	213	212	212	213	212	214	215		
Steel tower transmission lines	230	233	233	234	233	233	233	233	233	233	234	234	234	235		
Primary roads	231	231	228	230	229	228	232	233	231	230	233	235	237	240		
Secondary roads	262	263	254	258	258	260	273	273	264	255	262	264	269	279		
Bridges	244	247	246	248	250	251	255	257	257	255	259	261	264	269		
General property	227	228	227	228	228	228	230	231	233	234	237	238	238	240		
Composite trend	228	231	231	233	234	234	235	236	236	237	240	242	244	247		
<b>Land Indexes</b>																
Arizona	342	346	350	354	358	362	366	372	378	384	390	406	422	438		
California	360	366	370	374	378	384	388	390	392	394	396	400	404	408		
Colorado	254	255	256	257	258	261	262	265	268	271	274	276	278	280		
Idaho	239	245	251	257	261	264	270	271	272	273	274	275	276	277		
Kansas	148	149	150	151	152	153	154	155	155	156	157	157	157	157		
Montana	190	191	192	193	194	195	196	201	206	211	216	221	226	231		
Nebraska	162	163	166	168	170	171	172	173	174	175	176	177	178	179		
Nevada	358	362	366	370	374	376	378	380	382	384	386	388	390	392		
New Mexico	292	290	288	286	285	285	283	286	289	292	295	294	293	292		
North Dakota	146	148	150	152	154	156	157	158	158	158	159	160	161	162		
Oklahoma	155	157	159	161	163	164	165	166	166	166	166	169	172	175		
Oregon	294	300	306	312	316	318	320	322	322	322	322	323	324	325		
South Dakota	186	190	196	201	202	202	204	206	208	210	212	216	220	224		
Texas	201	205	209	213	216	217	218	218	218	218	218	222	226	230		
Utah	296	299	302	305	308	310	312	316	320	324	328	336	344	352		
Washington	234	231	222	216	216	216	215	217	219	221	223	223	223	223		
Wyoming	201	205	209	213	215	217	219	222	225	228	231	238	245	252		
<b>Other Indicators</b>																
Machinery and equipment (BLS)	239	240	240	240	240	240	240	240	240	240	242	243	243	245		
Federal salary	236	236	236	236	245	245	245	245	257	257	257	257	268	268		

11/17/2004  
 U.S. Department Of Labor  
 Bureau of Labor Statistics  
 Washington, D.C. 20212

Consumer Price Index

All Urban Consumers - (CPI-U)  
 U.S. City Average  
 All items

1982-84=100

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	SEMIANNUAL		AVG.	PERCENT CHANGE	
													1 ST HALF	2ND HALF		DEC-DEC	AVG-AVG
1913	9.8	9.8	9.8	9.8	9.7	9.8	9.9	9.9	10	10	10.1	10			9.9		
1914	10	9.9	9.9	9.8	9.9	9.9	10	10.2	10.2	10.1	10.2	10.1			10	1	1
1915	10.1	10	9.9	10	10.1	10.1	10.1	10.1	10.1	10.2	10.3	10.3			10.1	2	1
1916	10.4	10.4	10.5	10.6	10.7	10.8	10.8	10.9	11.1	11.3	11.5	11.6			10.9	12.6	7.9
1917	11.7	12	12	12.6	12.8	13	12.8	13	13.3	13.5	13.5	13.7			12.8	18.1	17.4
1918	14	14.1	14	14.2	14.5	14.7	15.1	15.4	15.7	16	16.3	16.5			15.1	20.4	18
1919	16.5	16.2	16.4	16.7	16.9	16.9	17.4	17.7	17.8	18.1	18.5	18.9			17.3	14.5	14.6
1920	19.3	19.5	19.7	20.3	20.6	20.9	20.8	20.3	20	19.9	19.8	19.4			20	2.6	15.6
1921	19	18.4	18.3	18.1	17.7	17.6	17.7	17.7	17.5	17.5	17.4	17.3			17.9	-10.8	-10.5
1922	16.9	16.9	16.7	16.7	16.7	16.7	16.8	16.6	16.6	16.7	16.8	16.9			16.8	-2.3	-6.1
1923	16.8	16.8	16.8	16.9	16.9	17	17.2	17.1	17.2	17.3	17.3	17.3			17.1	2.4	1.8
1924	17.3	17.2	17.1	17	17	17	17.1	17	17.1	17.2	17.2	17.3			17.1	0	0
1925	17.3	17.2	17.3	17.2	17.3	17.5	17.7	17.7	17.7	17.7	18	17.9			17.5	3.5	2.3
1926	17.9	17.9	17.8	17.9	17.8	17.7	17.5	17.4	17.5	17.6	17.7	17.7			17.7	-1.1	1.1
1927	17.5	17.4	17.3	17.3	17.4	17.6	17.3	17.2	17.3	17.4	17.3	17.3			17.4	-2.3	-1.7
1928	17.3	17.1	17.1	17.1	17.2	17.1	17.1	17.1	17.3	17.2	17.2	17.1			17.1	-1.2	-1.7
1929	17.1	17.1	17	16.9	17	17.1	17.3	17.3	17.3	17.3	17.3	17.2			17.1	0.6	0
1930	17.1	17	16.9	17	16.9	16.8	16.6	16.5	16.6	16.5	16.4	16.1			16.7	-6.4	-2.3
1931	15.9	15.7	15.6	15.5	15.3	15.1	15.1	15.1	15	14.9	14.7	14.6			15.2	-9.3	-9
1932	14.3	14.1	14	13.9	13.7	13.6	13.6	13.5	13.4	13.3	13.2	13.1			13.7	-10.3	-9.9
1933	12.9	12.7	12.6	12.6	12.6	12.7	13.1	13.2	13.2	13.2	13.2	13.2			13	0.8	-5.1
1934	13.2	13.3	13.3	13.3	13.3	13.4	13.4	13.4	13.6	13.5	13.5	13.4			13.4	1.5	3.1
1935	13.6	13.7	13.7	13.8	13.8	13.7	13.7	13.7	13.7	13.7	13.8	13.8			13.7	3	2.2
1936	13.8	13.8	13.7	13.7	13.7	13.8	13.9	14	14	14	14	14			13.9	1.4	1.5
1937	14.1	14.1	14.2	14.3	14.4	14.4	14.5	14.5	14.6	14.6	14.5	14.4			14.4	2.9	3.6
1938	14.2	14.1	14.1	14.2	14.1	14.1	14.1	14.1	14.1	14	14	14			14.1	-2.8	-2.1
1939	14	13.9	13.9	13.8	13.8	13.8	13.8	13.8	14.1	14	14	14			13.9	0	-1.4
1940	13.9	14	14	14	14	14.1	14	14	14	14	14	14.1			14	0.7	0.7
1941	14.1	14.1	14.2	14.3	14.4	14.7	14.7	14.9	15.1	15.3	15.4	15.5			14.7	9.9	5
1942	15.7	15.8	16	16.1	16.3	16.3	16.4	16.5	16.5	16.7	16.8	16.9			16.3	9	10.9
1943	16.9	16.9	17.2	17.4	17.5	17.5	17.4	17.3	17.4	17.4	17.4	17.4			17.3	3	6.1
1944	17.4	17.4	17.4	17.5	17.5	17.6	17.7	17.7	17.7	17.7	17.7	17.8			17.6	2.3	1.7
1945	17.8	17.8	17.8	17.8	17.9	18.1	18.1	18.1	18.1	18.1	18.1	18.2			18	2.2	2.3
1946	18.2	18.1	18.3	18.4	18.5	18.7	19.8	20.2	20.4	20.8	21.3	21.5			19.5	18.1	8.3
1947	21.5	21.5	21.9	21.9	21.9	22	22.2	22.5	23	23	23.1	23.4			22.3	8.8	14.4
1948	23.7	23.5	23.4	23.8	23.9	24.1	24.4	24.5	24.5	24.4	24.2	24.1			24.1	3	8.1
1949	24	23.8	23.8	23.9	23.8	23.9	23.7	23.8	23.9	23.7	23.8	23.6			23.8	-2.1	-1.2
1950	23.5	23.5	23.6	23.6	23.7	23.8	24.1	24.3	24.4	24.6	24.7	25			24.1	5.9	1.3
1951	25.4	25.7	25.8	25.8	25.9	25.9	25.9	25.9	26.1	26.2	26.4	26.5			26	6	7.9
1952	26.5	26.3	26.3	26.4	26.4	26.5	26.7	26.7	26.7	26.7	26.7	26.7			26.5	0.8	1.9
1953	26.6	26.5	26.6	26.6	26.7	26.8	26.8	26.9	26.9	27	26.9	26.9			26.7	0.7	0.8
1954	26.9	26.9	26.9	26.8	26.9	26.9	26.9	26.9	26.8	26.8	26.8	26.7			26.9	-0.7	0.7
1955	26.7	26.7	26.7	26.7	26.7	26.7	26.8	26.8	26.9	26.9	26.9	26.8			26.8	0.4	-0.4
1956	26.8	26.8	26.8	26.9	27	27.2	27.4	27.3	27.4	27.5	27.5	27.6			27.2	3	1.5
1957	27.6	27.7	27.8	27.9	28	28.1	28.3	28.3	28.3	28.3	28.4	28.4			28.1	2.9	3.3
1958	28.6	28.6	28.8	28.9	28.9	28.9	29	28.9	28.9	28.9	29	28.9			28.9	1.8	2.8
1959	29	28.9	28.9	29	29	29.1	29.2	29.2	29.3	29.4	29.4	29.4			29.1	1.7	0.7
1960	29.3	29.4	29.4	29.5	29.5	29.6	29.6	29.6	29.6	29.8	29.8	29.8			29.6	1.4	1.7

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Consumer Price Index

All Urban Consumers - (CPI-U)  
 U.S. City Average  
 All Items

1982-84=100

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	SEMIANNUAL 1 ST HALF	SEMIANNUAL 2ND HALF	AVG.	DEC-DEC	AVG-AVG
1961	29.8	29.8	29.8	29.8	29.8	29.8	30	29.9	30	30	30	30			29.9	0.7	1
1962	30	30.1	30.1	30.2	30.2	30.2	30.3	30.3	30.4	30.4	30.4	30.4			30.2	1.3	1
1963	30.4	30.4	30.5	30.5	30.5	30.6	30.7	30.7	30.7	30.8	30.8	30.9			30.6	1.6	1.3
1964	30.9	30.9	30.9	30.9	30.9	31	31.1	31	31.1	31.1	31.2	31.2			31	1	1.3
1965	31.2	31.2	31.3	31.4	31.4	31.6	31.6	31.6	31.6	31.7	31.7	31.8			31.5	1.9	1.6
1966	31.8	32	32.1	32.3	32.3	32.4	32.5	32.7	32.7	32.9	32.9	32.9			32.4	3.5	2.9
1967	32.9	32.9	33	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9			33.4	3	3.1
1968	34.1	34.2	34.3	34.4	34.5	34.7	34.9	35	35.1	35.3	35.4	35.5			34.8	4.7	4.2
1969	35.6	35.8	36.1	36.3	36.4	36.6	36.8	37	37.1	37.3	37.5	37.7			36.7	6.2	5.5
1970	37.8	38	38.2	38.5	38.6	38.8	39	39	39.2	39.4	39.6	39.8			38.8	5.6	5.7
1971	39.8	39.9	40	40.1	40.3	40.6	40.7	40.8	40.8	40.9	40.9	41.1			40.5	3.3	4.4
1972	41.1	41.3	41.4	41.5	41.6	41.7	41.9	42	42.1	42.3	42.4	42.5			41.8	3.4	3.2
1973	42.6	42.9	43.3	43.6	43.9	44.2	44.3	45.1	45.2	45.6	45.9	46.2			44.4	8.7	6.2
1974	46.6	47.2	47.8	48	48.6	49	49.4	50	50.6	51.1	51.5	51.9			49.3	12.3	11
1975	52.1	52.5	52.7	52.9	53.2	53.6	54.2	54.3	54.6	54.9	55.3	55.5			53.8	6.9	9.1
1976	55.6	55.8	55.9	56.1	56.5	56.8	57.1	57.4	57.6	57.9	58	58.2			56.9	4.9	5.8
1977	58.5	59.1	59.5	60	60.3	60.7	61	61.2	61.4	61.6	61.9	62.1			60.6	6.7	6.5
1978	62.5	62.9	63.4	63.9	64.5	65.2	65.7	66	66.5	67.1	67.4	67.7			65.2	9	7.6
1979	68.3	69.1	69.8	70.6	71.5	72.3	73.1	73.8	74.6	75.2	75.9	76.7			72.6	13.3	11.3
1980	77.8	78.9	80.1	81	81.8	82.7	82.7	83.3	84	84.8	85.5	86.3			82.4	12.5	13.5
1981	87	87.9	88.5	89.1	89.8	90.6	91.6	92.3	93.2	93.4	93.7	94			90.9	8.9	10.3
1982	94.3	94.6	94.5	94.9	95.8	97	97.5	97.7	97.9	98.2	98	97.6			96.5	3.8	6.2
1983	97.8	97.9	97.9	98.6	99.2	99.5	99.9	100.2	100.7	101	101.2	101.3			99.6	3.8	3.2
1984	101.9	102.4	102.6	103.1	103.4	103.7	104.1	104.5	105	105.3	105.3	105.3	102.9	104.9	103.9	3.9	4.3
1985	105.5	106	106.4	106.9	107.3	107.6	107.8	108	108.3	108.7	109	109.3	106.6	108.5	107.6	3.8	3.6
1986	109.6	109.3	108.8	108.6	108.9	109.5	109.5	109.7	110.2	110.3	110.4	110.5	109.1	110.1	109.6	1.1	1.9
1987	111.2	111.6	112.1	112.7	113.1	113.5	113.8	114.4	115	115.3	115.4	115.4	112.4	114.9	113.6	4.4	3.6
1988	115.7	116	116.5	117.1	117.5	118	118.5	119	119.8	120.2	120.3	120.5	116.8	119.7	118.3	4.4	4.1
1989	121.1	121.6	122.3	123.1	123.8	124.1	124.4	124.6	125	125.6	125.9	126.1	122.7	125.3	124	4.6	4.8
1990	127.4	128	128.7	128.9	129.2	129.9	130.4	131.6	132.7	133.5	133.8	133.8	128.7	132.6	130.7	6.1	5.4
1991	134.6	134.8	135	135.2	135.6	136	136.2	136.6	137.2	137.4	137.8	137.9	135.2	137.2	136.2	3.1	4.2
1992	138.1	138.6	139.3	139.5	139.7	140.2	140.5	140.9	141.3	141.8	142	141.9	139.2	141.4	140.3	2.9	3
1993	142.6	143.1	143.6	144	144.2	144.4	144.4	144.8	145.1	145.7	145.8	145.8	143.7	145.3	144.5	2.7	3
1994	146.2	146.7	147.2	147.4	147.5	148	148.4	149	149.4	149.5	149.7	149.7	147.2	149.3	148.2	2.7	2.6
1995	150.3	150.9	151.4	151.9	152.2	152.5	152.5	152.9	153.2	153.7	153.6	153.5	151.5	153.2	152.4	2.5	2.8
1996	154.4	154.9	155.7	156.3	156.6	156.7	157	157.3	157.8	158.3	158.6	158.6	155.8	157.9	156.9	3.3	3
1997	159.1	159.6	160	160.2	160.1	160.3	160.5	160.8	161.2	161.6	161.5	161.3	159.9	161.2	160.5	1.7	2.3
1998	161.6	161.9	162.2	162.5	162.8	163	163.2	163.4	163.6	164	164	163.9	162.3	163.7	163	1.6	1.6
1999	164.3	164.5	165	166.2	166.2	166.2	166.7	167.1	167.9	168.2	168.3	168.3	165.4	167.8	166.6	2.7	2.2
2000	168.8	169.8	171.2	171.3	171.5	172.4	172.8	172.8	173.7	174	174.1	174	170.8	173.6	172.2	3.4	3.4
2001	175.1	175.8	176.2	176.9	177.7	178	177.5	177.5	178.3	177.7	177.4	176.7	176.6	177.5	177.1	1.6	2.8
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181	181.3	181.3	180.9	178.9	180.9	179.9	2.4	1.6
2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185	184.5	184.3	183.3	184.6	184	1.9	2.3
2004	185.2	186.2	187.4	188	189.1	189.7	189.4	189.5	189.9	190.9			187.6				

# **Attachment D**

**Attachment D**

**USBR MEMORANDUM  
REGARDING POWER BENEFITS**

D-8270  
WTR-1.10

November 7, 2003

MEMORANDUM

To: Program Manager, Bonneville Unit Pilot Management Program,  
Provo Area Office, Provo, Utah  
Attention: BU-120 (Rhees)

From: Robert B. Hamilton  
Manager, Economics Group

Subject: Economic Benefit Values for Sixth Water and Upper Diamond Fork Power  
Stations, Bonneville Unit, Central Utah Project, Utah

Based on your request, we have developed power values of \$187 per kilowatt-year for capacity and 12.5 mills per kilowatt-hour for energy, for use in deriving total annual benefits for the Sixth Water and Upper Diamond Fork power stations. These values represent the "avoided costs" of a coal-fired base load power plant and transmission connection, which would be nonfederally developed. A 5.5 percent financing rate was assumed.

The above power values are significantly less than the values provided in our May 4, 1994, memorandum. Since that time, coal-fired plant costs have decreased and the plants operate more efficiently; in addition, the cost of coal has declined. Plant investment costs, heat rates, and fixed and variable plant operation costs were extracted from the Department of Energy's "Assumptions for Annual Energy Outlook 2003" (January 9, 2003). The data source for coal costs is the Department of Energy's "Electric Power Monthly" (October 2003).

Please contact me at 303-445-2724 if you have questions concerning our analysis.

bc: D-8270 (File)

WBR:RBHamilton:daw:11/07/03:303-445-2724  
P:/RBH: BONNEVILLE.MEMO

# **Attachment E**

**Attachment E**

**FISH AND WILDLIFE SERVICE  
MEMORANDUM REGARDING  
USER-DAY VALUES**

We find that supplementing flows below the confluence of the Strawberry and Duchesne rivers with 2,900 acre-feet would not improve trout fisheries; however, there will be other benefits below that point that are not quantified in this Planning Aid Letter. These other benefits include improved habitats for other fish and wildlife including four federally listed endangered fishes that inhabit the lower Duchesne, Green, and Colorado rivers; the amelioration of water quality problems in downstream areas, and potential increases in downstream hydroelectric production.

On the basis of evaluations presented in the 1988 Aquatic Mitigation Plan for Strawberry Aqueduct and Collection System, we estimate benefits with the timely release of an additional 2,900 acre-feet of water to the Strawberry River downstream from Soldier Creek Dam/and or to other Uinta basin streams affected by the Strawberry Aqueduct and Collection System would be about 1,914 angler-days. Applying the \$25.96 value derived above yields a monetary value of \$49,687.44. The Division and Commission have indicated their concurrence in this evaluation to fisheries associated with proper management of the 2,900 acre-feet in streams affected by the Strawberry Aqueduct and Collection System.

Summary of fishery benefits associated with the WCWEP/DRP

In summary, the fisheries benefits attributable to the subject project as described above are shown in the following table:

Benefit Type	Angler-Days	Monetary Value (\$)
Reallocation of fish no longer stocked in Strawberry Reservoir	201,937	\$5,242,284.50
Improved streamflows in Uinta basin streams	1,914	49,687.44
Total	203,851	\$ 5,291,971.94

Sincerely,

Reed E. Harris  
Field Supervisor

Enclosures

HQI analysis presented by Mills (Ibid.), and it is the return of flows that is the major factor in projected improvements in trout biomass. Many of the proposed habitat improvement features would be totally inefficient without the return of flows.

Table 1 of the Division's analysis presents Mill's 1984 estimate of the present and projected standing crop, and potential improvements for the Upper Strawberry River and its tributaries and the calculated estimate for the total of all streams in Strawberry Valley. The potential increase in trout biomass of the affected streams is 16,142 pounds or about 48.8 percent of the trout biomass anticipated for all age classes in the entire Strawberry Valley. The potential valley wide improvement in trout biomass is 33,079 pounds

The Division's analysis demonstrates that restoration of natural stream flow in the upper Strawberry River and its tributaries would eliminate the need to stock 1,628,640 fingerling trout in the reservoir. Step 3 of the Division's analysis identifies anticipated fish stocking requirements by species, which total 38,687 pounds of hatchery production annually. In subsequent calculations this figure was rounded to 39,000 pounds. Rounding data in calculating benefits is customary; however, we believe it appropriate to carry the calculations through to conclusion (ie. angler-days) rather than rounding at the point shown in the analysis. Making this adjustment and using procedures followed in the Division's analysis the savings in hatchery production derived from flow return becomes 18,569 pounds; the number of fish available for stocking other waters becomes 1,615,569; and the angler-days derived becomes 201,937.

The Division's analysis also includes monetary values based on \$55.00 per angler-day. As previously stated, the Fish and Wildlife Service believes it more appropriate to apply a value of \$25.96 to arrive at the monetary value, and the Division has subsequently indicated to us that this value is acceptable to them. Therefore, the reallocated 1,615,569 hatchery produced fish that would be stocked in other waters of the state would provide an estimated 201,937 angler-days valued at \$ 5,242,284.50.

#### Benefits associated with increased stream flows in Uinta basin streams

Under Sec. 303 of the Central Utah Project Completion Act, water that is presently diverted to Daniels Creek is to be applied to increase minimum stream flows in the upper Strawberry River and its tributaries and in Strawberry River downstream from Soldier Creek Dam or in other Uinta basin streams that are affected by the Strawberry Aqueduct and Collection System. Under Sec. 303 (b)(1)(C) this water is to be distributed in such a manner as deemed by the Commission in consultation with the Service and Division to be in the best interest of fish and wildlife.

Results from electrofishing surveys by the IBAT have demonstrated that there are substantial trout populations in the Strawberry River, Currant Creek, West Fork Duchesne River, and Rock Creek downstream from diversions into the Strawberry Aqueduct and Collection System; however, trout populations downstream from the confluence of the Strawberry and Duchesne rivers are not significant.

numbers stocked, it would also dramatically increase the cost per fish stocked. The Fish and Wildlife Service does not believe that efforts to refine the analysis to incorporate possible scenarios of stocking different sizes and numbers of trout is warranted.

Since it is estimated that the full value of restoration will not be realized until 10-15 years after restoration of the historic streamflows, adjustments to reflect a sliding scale stocking rate until after the full restoration benefits are achieved were considered. The Fish and Wildlife Service believes that refinements to show the initial and increasing benefits would be highly subjective. Angler-day use may fluctuate, but we believe the analysis presented would be average over the life of the project.

The Division's analysis utilized trout standing and fisheries data reported by Mills (1984).<sup>1</sup> Mills' analysis was based on a model developed in Wyoming by Binns and (1979)<sup>2</sup> to estimate fluvial trout standing crops and potential angler use. The model produces a Habitat Quality Index (HQI) used to predict the standing crop. Information on late summer stream flows, annual stream flow variation, water velocity, trout cover, stream width, eroding stream banks, stream substrate, nitrate nitrogen concentration, and maximum summer stream temperatures are parameters that are input to the model. Field tests of the model on streams similar to the Strawberry River and its tributaries in Wyoming indicated that these parameters explained 96 percent of the variation in trout standing crop (multiple regression coefficient  $R=0.983$ ). This high rate of statistical reliability suggests a direct relationship between HQI predictions and trout standing crop.

Mills (Op cit.) noted that results from the Binns model on streams in Strawberry Valley closely followed the standing crop estimates derived from available electrofishing data. The Fish and Wildlife Service and Division have also found similarities in the results achieved from the model and estimates of standing crops of trout in other streams on the Wasatch Front and in the Uinta Basin. In applying the model, Mills analyzed the existing production and resultant potential angler days with present distressed water temperature, cover, and bank stability conditions and compared the results with anticipated improved conditions and the associated increase in trout production and angler use. The estimates by Mills included benefits derived from installation of habitat improvement features (structures, bank stabilization, etc.) in addition to the return of natural flows.

It would be most appropriate in assessing the benefits of restored streamflows, to separate the benefits associated with habitat improvement projects in the upper Strawberry River and the restoration of stream flows; however, this has not been done. The separation of these benefits would require exhaustive studies that the Fish and Wildlife Service does not believe to be justified for this particular analysis. The return of flows was a basic assumption of the

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<sup>1</sup>Mills, A.D. 1984. Aquatic habitat management/rehabilitation on Strawberry Reservoir tributary streams: A support programming conjunction with the enlarged Strawberry Reservoir recreation complex and associated land management plans. U.S. Department of Agriculture, Forest Service, Intermountain Region, Uinta National Forest, Provo, Utah.

<sup>2</sup>Binns, A.B. 1988. Habitat Quality Index Procedures Manual. Wyoming Game and Fish Department

Economists that we discussed the matter with indicate that use of the CPI for converting recreation values into common year dollars is criticized by some; however others continue to believe it is an appropriate methodology. Other inflationary indexes are available (e.g. Gross National Product and Gross Domestic Product price deflators). It is possible and perhaps likely that the selection of the index may not significantly affect overall results because many of the indexes tend to move in unison.

The CPI reflects changes in the prices for goods and services that consumers pay over time. By tracking the movement of consumer expenditures over time, the index measures consumer inflation.

#### Benefits associated with the reallocation of fish stocked in Strawberry Reservoir

The restoration of historic stream flows to the upper Strawberry River and its tributaries will substantially reduce the need to stock fish in the reservoir and the hatchery production will be reallocated to other waters resulting in increased angling outside of Strawberry Valley. These are the primary benefits attributable to the WCWEP/DRP.

The Fish and Wildlife Service requested the assistance of the Interagency Biological Assessment Team, consisting of biologist of the involved agencies to develop an analysis that the Fish and Wildlife Service may review and modify as necessary. The Fish and Wildlife Service would then perform appropriate coordination activities before submitting the evaluation under authority of the Fish and Wildlife Coordination Act.

Personnel of the Division assisted the IBAT in assessing the benefits that will result from the reallocation of hatchery produced fish that would no longer be stocked in Strawberry Reservoir if the natural stream flows and fish recruitment were realized. This analysis, was transmitted to the Service by letter from Mr. Robert G. Valentine, Director, Utah Division of Wildlife Resources dated December 8, 1995, and is entitled, "Benefits Analysis for the Strawberry Exchange—1995" (copy attached). This December 8, 1995 letter pointed out that the attached analysis superseded a preliminary analysis that the Division had provided to the Forest Service by letter dated February 24, 1994.

The Division's stocking decisions at Strawberry Reservoir are based on two primary factors: (1) Recruitment through natural reproduction or stocking; and (2) Exploitation or fisherman harvest. The post-treatment management plan for the reservoir focuses on natural recruitment and stocking rates being reduced as the spawning population increases and the fishery becomes more self sustaining. The Division believes the stocking level in 1993 is representative of the numbers that they would stock in the reservoir in the future without the potential improvements to streams in the valley. In 1993, the Division stocked 4.5 million trout (73,652 pounds) in the reservoir. This 1993 stocking level establishes the benchmark upon which the Division's analysis is based.

Because the Division has programmed fingerling sized trout for stocking Strawberry Reservoir it is likely that the redirection of these fish to other waters would also utilize a fingerling sized product. While the application of larger sized fish would reduce the

River and its tributaries were conducted and a monetary value was applied to the computed angler-day benefits. Several methods of arriving at the economic value of a recreation day of fishing were considered for use in this analysis, including an expenditures basis, as is used in (1) the 1991 "National Survey of Fishing, Hunting, and Wildlife Associated Recreation Utah" [The monetary value in 1991 was estimated to be \$55.00 and when cost indexed to September 1, 1995 values using the Consumer Price Index equals \$62.60]; or if a "contingent value method of estimating benefits such as is used in (2) the U.S. Water Resources Council. 1983 "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies" [The highest Unit Day Value for best angling in 1983 estimated at \$19.00 and when cost indexed to September 1, 1995 using the CPI equals 29.57], (3) the "1991 Net Economic Values for Bass and Trout Fishing, Deer Hunting, and Wildlife Watching" (U.S. Fish and Wildlife Service Report No. 91-1), [The "net economic value per day" reported for trout fishing in Utah in 1991 is valued at 23.00 and when cost indexed to September 1, 1995 using the CPI equals \$25.96], (4) the American Fisheries Society's 1992 "Investigation and valuation of Fish Kills, Special Publication No. 24 [Average User Value per day for trout fishing in 1989 dollar values is estimated at \$16.07 and when cost indexed to September 1, 1995 values using the CPI equals \$20.08]; or (5) the angler-day value determined by Montgomery Watson in a summary of findings from three subject studies [1991 angler-day benefit value estimated at \$16.17 and when cost indexed to September 1, 1995 using the CPI equals \$18.40].

Comments from the Commission, Interior, and Division recognized the need for basing the value on net economic benefits rather than economic impacts as derived from expenditures (ie. above methods 2,3,4, or 5 rather than on 1). The Forest Service and the District supported use of the monetary value of fishing derived from expenditure data as reported in method 1 because this document was signed by the Director of the Fish and Wildlife Service and the Division had indicated their approval of its use.

The Division initially concurred in use of method 1. but later recommended use of "travel cost" or "contingent value" methods as reported in method 2, rather than the expenditure data approach. The Division recommended using the highest Unit Day Value for the best fishing described in the document (\$29.57) which included recreational unit day values throughout the United States.

The Service recognized that there are highly valuable fisheries within the State of Utah, but believed that assignment of the maximum value for angling was intended for very specialized angling experiences such as anadromous salmon fishing, and that the highest value suggested is not appropriate in this instance. The Service believes it is most appropriate to use the 1995 value computed from the "1991 Net Economic Values for Bass and Trout Fishing, Deer Hunting, and Wildlife Watching" (method 3) because it is one of the more current analysis and presents values specific for trout fishing in the State of Utah. We also believe that arriving at an angler-day use value is less subjective using this study than method 2. Subsequently, personnel of the Division and Commission have informed us that they are agreeable to basing the economic evaluations on method 3.

tributaries as the highest priority element of the mitigation plan, and assigned mitigation credits of 10,000 angler-days (approximately 26.9 percent of the mitigation requirement) to this measure. The WCWEP/DRP will restore the historic stream flow to the upper Strawberry River and provide the 10,000 angler-days benefit stated in the mitigation plan. This will help mitigate losses attributed to the Strawberry Aqueduct and Collection System and can not be counted as mitigation benefits for the WCWEP/DRP.

It is also important to note that the egg taking station on Strawberry River just upstream from the reservoir and stream habitat improvements on the Strawberry River and other streams that were parts of the mitigation plan for the Strawberry Aqueduct and Collection System can not be counted as mitigation for the WCWEP/DRP. Therefore, the benefits of these features are not included in this analysis.

Our analysis of benefits associated with the WCWEP/DRP is based on six assumptions, and where warranted the rationale for these assumptions are discussed in the text of this letter. The assumptions are as follows:

1. Upon termination of the Daniels Creek Irrigation Company's diversions, an annual average of 2,900 acre-feet of additional water will be available in the Upper Strawberry River and its formerly affected tributaries.
2. No loss of water is projected to occur as a result of evaporation or transpiration as the 2,900 acre-feet of water as it flows through the system.
3. There will be sufficient space in features of the Strawberry Aqueduct and Collection System for storage of the 2,900 acre-feet of water without conflict with the storage of fisheries water provided under the Streamflow Agreement of 1980, as amended in 1990.
4. Releases of the water will be on a schedule that will optimize fish and wildlife habitat.
5. Benefits to stream trout fisheries downstream from the confluence of the Strawberry and Duchesne rivers will not be enhanced as a result of the increased stream flow.
6. General consumer expenditures move in tandem with recreation expenditures, and the CPI is an appropriate index for converting the angler-day monetary values identified in Waddington, Boyle and Cooper. 1994. "1991 Net Economic Values for Bass and Trout Fishing, Deer Hunting, and Wildlife Watching." U.S. Fish and Wildlife Service Report No. 91-1 into common year values.

#### Basis for monetary evaluations of angler-day benefits

To ascertain monetary fishery benefit values, evaluations of the angler-day fishery benefits that could be associated with restoration of historic stream flows to the upper Strawberry

# DRAFT

Mrs. Karen Ricks, Project Manager  
Wasatch County Water Efficiency Project  
Central Utah Water Conservancy District  
355 West 1300 South  
Orem, Utah 84058-7303

Dear Karen:

This is in response to a request from your agency for an assessment of fishery enhancement benefits attributable to the Wasatch County Water Efficiency Project/Daniels Replacement Pipeline. All benefits associated with the project's restoration of historic stream flows into the upper Strawberry River and its tributaries will occur outside of the Strawberry Reservoir drainage and involve: (1) the re-allocation of hatchery production presently scheduled FOR stocking Strawberry Reservoir to other waters within Utah and (2) improvement to fisheries habitat in Strawberry River downstream from Soldier Creek Dam and/or in other streams that were impacted by the Strawberry Aqueduct and Collection System.

This planning aid letter is being submitted under authority of the Fish and Wildlife Coordination Act (48 Stat. 401; as amended, 16 U.S.C. 661 et seq.).

A draft of this Planning Aid Letter was submitted to the Utah Reclamation Mitigation Conservation Commission, the Department of the Interior's CUP Completion Act Office, Bureau of Reclamation, Bureau of Indian Affairs, U.S. Forest Service, Utah Division of Wildlife Resources, and Ute Indian Tribe for review and comments. Comments were received from Ms. Christine D. Karas, Chief, Environmental Resources Group, Bureau of Reclamation, Upper Colorado Regional Office, Salt Lake City, Utah, dated, December 20, 1995; Environmental Programs Manager Harold N. Sersland, Central Utah Water Conservancy District dated December 22, 1995; Executive Director Michael C. Weland, Utah Reclamation Mitigation Conservation Commission dated January 4, 1996; Program Director Ronald Johnston, U.S. Department of the Interior, CUP Completion Act Office dated January 16, 1996; Director Robert G. Valentine, Director, Utah Division of Wildlife Resources dated January 11, 1996; and CUP Liaison Officer Bevan Killpack, U.S. Forest Service, dated January 26, 1996 (copies attached). Comments that were offered and questions asked by agencies and the Service's response are incorporated in this finalized Planning Aid Letter.

The proposed WCWEP/DRP includes provisions for increased streamflows in some streams in Heber Valley including Rock Ditch, Spring Creek, Cremery Ditch, London Ditch, and lower Lake Creek. This will improve the trout habitat of these waters, and is in conformity with goals for sensitive environmental planning of projects authorized for study under the Central Utah Project Completion Act of 1992 (P.L. 102-575). No increase in angler-day usage of these streams is attributed to this project; however, because no provisions for public access for angling are included in the plans.

The 1988 Aquatic Mitigation Plan for Strawberry Aqueduct and Collection System recognized restoration of historic stream flows in the upper Strawberry River and its

This attachment contains an undated draft memorandum transmitted by the U.S. Fish and Wildlife Service to the CUWCD on March 21, 1996, which addresses the monetary value of fish and wildlife-oriented recreation benefits.

This attachment is Xerox copy of that which was presented in the SFN System 1998 Draft Financial and Economic Appendix.

In computing fishery benefits for this 2004 Bonneville Unit Financial and Economic Analyses, the fishery benefits in this memorandum were indexed to current levels using an average of the Consumer Price Index for the first six months of 2003.