# ENVIRONMENTAL CONSEQUENCES CHAPTER 4

Chapter 4 analyzes direct and indirect effects of the Preferred Alternative (Proposed Action/Negotiated Alternative) compared to the No Action Alternative. Effects on the Clark Canyon Reservoir water supply; water quality; fisheries, wetlands; wildlife; Threatened and Endangered species; social and economic conditions; and recreation are included in the analysis. Cumulative effects—the combination of the effects of the alternatives in this EA with other actions in the past, present, or the reasonably foreseeable future—are also included (other actions are listed in Chapter 1, "Relationship of This Action to Other Actions.").

Chapter 4 evaluates what would happen if the new contracts were based on a negotiated priority system along with implementing the other components of the Preferred Alternative compared to the No Action Alternative. Effects of the No Action Alternative are presented first, followed by those of the Preferred Alternative. As a reminder, the No Action Alternative would be based on the following priority system.

- 1. *1<sup>st</sup> priority* would provide supplemental irrigation water to CCWSC at their original water diversion rate of 4.0 AF/ac for 25,995 contract acres,
- 2. **2**<sup>nd</sup> **priority** would provide primary irrigation water to EBID at their original water diversion rate of 3.1 AF/ac for 22,689 contract acres,
- 3. After 1<sup>st</sup> and 2<sup>nd</sup> priorities were filled, the *3<sup>rd</sup> priority* would provide additional water for irrigation based on "beneficial use" (what crops could beneficially consume) and subject to water availability, equivalent to 7,711 acres for CCWSC and 4,448 (not including 918 added acres) acres for EBID.

The Preferred Alternative or the Proposed Action Alternative would be based on this priority system.

- 1. *I*<sup>st</sup> *priority* would provide CCWSC irrigation water equal to diverting 4.0 AF/ac measured at the point of diversion for 25,995 acres (consistent with the 1<sup>st</sup> priority contract acres in the expiring contract). CCWSC would be authorized to use that volume of water to irrigate the 25,995 acres and up to 7,711 acres (formally 3<sup>rd</sup> priority acres in the expiring contract) identified for irrigation.
- 2. 2<sup>nd</sup> priority would provide EBID irrigation water equal to diverting 3.1 AF/ac measured at the point of diversion for 22,689 acres (consistent with the 2<sup>nd</sup> priority contract acres in the expiring contract). EBID would be authorized to use that volume to irrigate the 22,689 acres and up to 4,448 acres (formally 3<sup>rd</sup> priority acres in the expiring contract) identified for irrigation. Approximately 918 acres that currently lie outside of the district's boundaries are proposed to be included in this 2<sup>nd</sup> priority. The landowners of the 918 acres would need to petition the local district court to have these acres included within the EBID according to Montana statute. Reclamation would need to approve the inclusion before EBID could irrigate these acres.
- 3.  $3^{rd}$  priority would provide irrigation water for beneficial use (what crops could beneficially consume) on the CCWSC and EBID acreage described above. The  $3^{rd}$  priority would only be

implemented when the 1<sup>st</sup> and 2<sup>nd</sup> priority full allotments had been met and subject to availability. The increased water allotment would be determined by the Joint Board.

A Drought Management Plan would be included, triggered at specific reservoir levels based on August EOM (end-of-month) forecasts. In addition, EBID shoulder season, winter release guidelines, target reservoir minimum pool levels, establishment of reserve funds, EBID shoulder season, and establishment of a memorandum of agreement between MDFWP and Reclamation will also be included as part of the Preferred Alternative.

Lastly, it should be noted that renewal of the O&M transfer agreement between Reclamation and EBID would be part of the Preferred Alternative. O&M actions that have been routinely carried out in past over long periods of time and do not constitute a change in O&M activities do not require additional NEPA compliance. This O&M transfer agreement includes routine O&M actions; including, but not limited to maintenance of the canal, removing unwanted vegetation from the face of the dam and canal, treating weeds, maintaining roads, and routine maintenance of the irrigation infrastructure. Extraordinary maintenance or other non-routine activities require NEPA compliance and the EBID will annually submit an O&M work plan to Reclamation listing these extraordinary activities. Reclamation will ensure environmental and cultural compliance are completed on these extraordinary activities prior to the work being initiated. The renewal of the O&M transfer agreement will not be discussed further in this EA.

#### **Environmental Justice and Indian Trust Assets**

Reclamation determined there would be no potential for the Preferred Alternative to have disproportionately high or adverse effects on low-income or minority populations. In addition, several Tribes (Shoshone Bannack Tribe, Lemhi Shoshone Tribe, Federated Salish and Kootenai Tribes, and the Crow Tribe) were contacted in the past for other projects regarding Indian Trust Assets surrounding Clark Canyon Reservoir. There are no Indian Trust Assets found in the Clark Canyon Reservoir area; therefore, it was determined that Indian Trust Assets would not be affected.

## **Water Supply**

Reclamation used its HYDROSS computer model to estimate effects to the water supply from the alternatives. (A full description of the model, the assumptions, and criteria used in development of the model can be found in the Methods of Analysis section at the end of this report.) This model was the basis on which the effects of the Preferred Alternative are compared to the No Action Alternative. The HYDROSS model did not take into account the potential climatic change on future water supplies. This is because there are no generally accepted regional climate models for the Beaverhead River basin. Any consideration of climate change and adjustment of model results would be speculative.

Both the No Action Alternative and Preferred Alternatives would continue to supply water from Clark Canyon Reservoir and from irrigation return flows. Continued sedimentation of the reservoir would decrease storage. Based on the projected 100-year sedimentation rate, the reservoir's joint-use pool would decrease about 2,000 AF (or 1%) from the present.

Inflows to the reservoir and water gains in river reaches would not be anticipated to change much between the alternatives. Conversion to higher efficiency irrigation systems could reduce return flows, but this would be offset by reduced demands for water from reservoir storage and river flows.

Small differences in the water supply for each alternative would result from return flow differences. These differences would be caused by changes in water distribution from the priorities of a particular alternative.

#### No Action Alternative

The No Action Alternative would maintain deliveries for CCWSC and EBID at current water delivery rates and priorities. At times, reservoir storage could be drawn down to 10,000 AF (minimum pool) or less to meet water demands. During drought years, EBID's allocation would be reduced first to provide CCWSC their allocation if at all possible. Reduced water diversions to EBID would lessen return flows to downstream lands. Authorization for EBID shoulder season irrigation would be a part of this alternative.

#### **Preferred Alternative**

This alternative would provide a water allocation based on the total number of original contract acres, but water could be distributed to all irrigable lands of CCWSC and EBID. This alternative would also allow for distribution of water to 918 acres currently outside EBID boundaries once EBID boundaries were petitioned for change and approval by the District Court. During normal water years, this could result in greater 3<sup>rd</sup> priority demands and consequently less reservoir storage for the following irrigation season when compared to the No Action Alternative.

This alternative would also differ from No Action because it would include a Drought Management Plan. The plan would go into effect when the August EOM reservoir contents were forecast to be less than 50,000 AF. Stepped allocations for both contract water users based on these forecasts would have the effect of allowing more carryover storage when compared to No Action. Less water would be diverted during a drought to carry more water over to the following year in anticipation of a continued drought. Using simulated median March EOM reservoir contents, storage in the Preferred Alternative would be 151,000 AF in comparison to 147,600 AF for No Action, or 2% more.

Reduced diversions during droughts would lessen return flows available for irrigation of downstream lands. Based on simulated average annual cumulative return flows, the Preferred Alternative would result in 86,200 AF of return flows at the Beaverhead River near Twin Bridges stream flow gauge (USGS Station 06018500), compared to 87,900 AF for No Action, or 2% less. Shoulder season for EBID would continue during both spring and fall for irrigation and to charge up the canal conveyance system through exercise of the natural flow right in accordance with Montana water laws.

#### **Cumulative Impacts**

This EA identifies several past, present, and reasonably foreseeable future actions in the "Other Actions Occurring in the Beaverhead River Basin" section of Chapter 1. The stored water supply in the reservoir would be used for irrigation and would be replenished dependent on precipitation and inflows. The Beaverhead River conditions would be dependent on releases from the dam, precipitation, temperatures, and depletions from other water users in the Beaverhead Valley and tributaries. When the impacts of implementing this Federal action are added to these other actions, the conversion to repayment contracts would not cumulatively impact the water supply of Clark Canyon Reservoir or the Beaverhead River.

## **Water Quality**

Effects to water quality from the alternatives would be similar to present since they result from about the same supply of water. The Methods of Analysis section describes how effects of the alternatives were estimated.

#### No Action Alternative

This alternative, which would maintain deliveries for both districts at current water application rates, would not result in any change to water quality. Likewise, continued operation of the diversions, canals, laterals and related water conveyance and distribution facilities would not degrade water quality. Figure 4.1 shows total diversions in median (mid-point) and low flow years that would occur in this alternative.

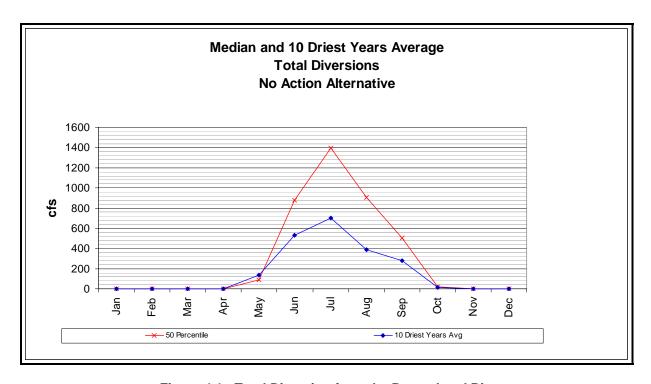


Figure 4.1: Total Diversion from the Beaverhead River

Nitrogen in Stone and Spring Creeks would remain at high levels as they have in the past.

#### **Preferred Alternative**

The alternative would not change water quality in the Beaverhead River Basin compared to No Action, and continued operation of system facilities would not change water quality. Likewise, continued operation of the diversions, canals, laterals and related water conveyance and distribution facilities would not degrade water quality. As Figure 4.2 shows, total diversions in the Preferred Alternative closely follow total diversions in No Action, both in timing and degree.

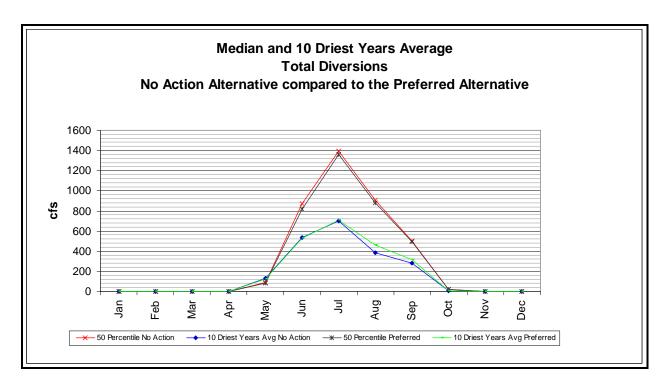


Figure 4.2: Total Diversion Comparison of No Action and Preferred

Table 4.1 shows the difference between the No Action Alternative and the Preferred Alternative in the median and driest 10 years. In all months in median flow years, the hydrograph closely follows that of No Action. However, less total diversions would be made in all months. This reduction in diversions would result in slightly more water in the river during the irrigation season. During the 10 driest years, the hydrograph closely follows that of No Action. Slightly less water would be diverted in May, June, and September, and slightly more in April, July, and August.

Table 4.1: Total Diversions (cfs) Comparison in Median and 10 Driest Years

|           | Median Flow Years |           |            | Driest 10 Years |           |            |  |
|-----------|-------------------|-----------|------------|-----------------|-----------|------------|--|
|           | No Action         | Preferred | Difference | No Action       | Preferred | Difference |  |
| April     | 0                 | 0         | 0          | 0.6             | 0.9       | 0.3        |  |
| May       | 87.5              | 84.7      | -2.8       | 133.8           | 123.3     | -10.5      |  |
| June      | 875.3             | 813.8     | -61.5      | 533.9           | 529.4     | -4.5       |  |
| July      | 906.5             | 876.7     | -29.8      | 387.4           | 462.8     | 75.4       |  |
| August    | 503.7             | 493.3     | -10.4      | 282.2           | 312.8     | 30.6       |  |
| September | 19.8              | 19.6      | -0.2       | 10.3            | 9.7       | -0.6       |  |

Nitrogen levels in Stone and Spring Creeks would remain high as they have in the past, similar to the No Action Alternative.

Implementation of the Drought Management Plan and the minimum requirements to alleviate drought effects would not change water quality in the Beaverhead River basin or Clark Canyon Reservoir.

#### **Cumulative Impacts**

The proposed action would have no effect on water quality. Therefore, analysis of potential cumulative effects on water quality is not required.

#### **Fisheries**

Effects are divided between those for reservoir fisheries and those for river fisheries in the upper Beaverhead River, lower Beaverhead, and the Jefferson River. The analysis was based on fish conditions and used the HYDROSS hydrology model developed for this EA. The intent of the model was not to duplicate historic conditions, but rather to forecast hydrologic conditions to be used as a tool to compare the two alternatives. Fishery conditions in the various sections were compared and the fish species listed in Table 3.3 were analyzed as a group. Fishery conditions included populations, size, biomass, and condition (health) as factors for determining the various categories. Additional information on how the analysis was done can be found in Methods of Analysis. Shoulder season for EBID would continue during both spring and fall for irrigation and to charge up the canal conveyance system through exercise of the natural flow right in accordance with Montana water laws.

#### No Action Alternative

#### Clark Canyon Reservoir

Clark Canyon Reservoir would be operated as it has been in the past in this alternative. Fish populations and conditions would continue to depend on the surface area—thus on storage—of the reservoir. Conditions similar to the past would be expected, but for comparison purposes, modeled results were used. It should be noted that many of these declining years were predicted from the extremely low inflows of the 1930s and early 1950s before the reservoir was constructed. Also, the model delivers water to all demands regardless of conditions, where in reality, river flows and/or reservoir levels would be held higher by management actions in response to forecasted conditions. For comparison, modeling results indicate fishery conditions would be either "optimum" or "good" in 46% of the years, while 54% would have "fair" or "declining" fishery conditions under the No Action (Table 4.2). (Criteria and descriptions for the four categories for overall fisheries conditions can be found in Methods of Analysis.)

**Table 4.2: Reservoir Fishery Conditions in No Action** 

| Conditions | Criteria                     | Years | % of<br>Record |
|------------|------------------------------|-------|----------------|
| Optimum    | Sept EOM 100,000 AF or more  | 20    | 27%            |
| Good       | Sept EOM 60,000-99,000 AF    | 14    | 19%            |
| Fair       | Sept EOM 30,000-59,000 AF    | 7     | 9%             |
| Declining  | Sept EOM less than 30,000 AF | 32    | 45%            |

For perspective, historical records since the dam was built in 1964-2002 show the reservoir at optimum conditions for 25 years (66% of the time), good conditions for 8 years (21%), fair for 4 years (11%) and declining only one year (3%), 2002. That year (2002), the reservoir dipped below the "declining" threshold after several years of low inflows, due to drought. These conditions are expected to be similar under the No Action Alternative. Additionally, the reservoir has been at low levels due to drought in the past three years that are not included in the model.

#### Upper Beaverhead River

The upper Beaverhead River reach runs from Clark Canyon Dam outlet works downstream to Barretts Diversion Dam. As with the reservoir, water conditions in the upper Beaverhead River would be similar to the past, with winter flows set to reflect reservoir conditions and forecasted inflows. Low-water years would continue to be characterized by minimum flows, with better conditions for fisheries in better water years. Again, the model does not account for management actions to provide better flows, so the worst-case scenario in the model is depicted. Modeling indicated upper river fishery conditions would be either optimal or good about 33% of the time, fair or declining about 67% of the time (Table 4.3). (Criteria and descriptions of the four categories for overall fisheries conditions can be found in Methods of Analysis.)

Table 4.3: Upper Beaverhead Fishery Conditions in No Action

| Conditions | Criteria                         | Years | % of<br>Record |
|------------|----------------------------------|-------|----------------|
| Optimum    | Oct-March Mean more than 200 cfs | 16    | 22%            |
| Good       | Oct-March Mean 125-199 cfs       | 8     | 11%            |
| Fair       | Oct-March Mean 65-124 cfs        | 10    | 13%            |
| Declining  | Oct-March Mean less than 65 cfs  | 40    | 54%            |

Fishery conditions, fish abundance, size, and health would be expected to be similar to what has occurred in the past, since this alternative would continue similar reservoir operations for the next 40 years. Higher releases would be expected when adequate reservoir levels were present and lower releases during drought years.

#### Lower Beaverhead River

The lower Beaverhead River reach runs from Barretts Diversion Dam downstream to the confluence of the Big Hole River. This fishery also depends on ample in-stream flows, but summertime flows tend to be the limiting factor for fisheries. MDFWP was granted an in-stream flow reservation of 200 cfs for the Beaverhead River from Clark Canyon Dam to its mouth. The priority date of the reservation is July 1, 1985 (Montana Department of Fish, Wildlife and Parks, 1989). Again, modeling was used to predict future flows; conditions near the town of Twin Bridges were used for this analysis.

Another issue in this section of the river is the altered hydrograph characterized by low summer flows and rising hydrograph in the fall. The overall hydrograph of the river was graphed to visualize any changes due to the Preferred Alternative as compared to No Action. Two lines were plotted on the graph to represent median water years (the 50<sup>th</sup> percentile) and the ten driest years on record.

In this alternative, median flows in the Beaverhead near Twin Bridges would remain above 200 cfs for most of the year, dipping below this figure during May and September (Figure 4.3). The average of the 10 driest years would be well below 200 cfs for most of the year. In this alternative, 48 out of 74 years were characterized by the model as falling below 200 cfs in September, typically the lowest point of the water year.

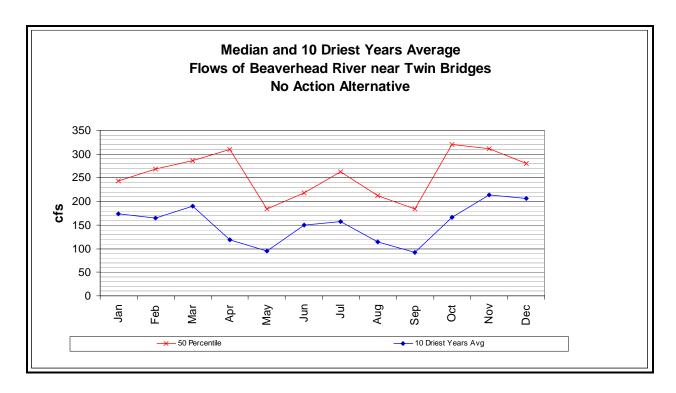


Figure 4.3: No Action Flows in the Lower Beaverhead River

River fishery conditions, fish abundance, size, and health would be expected to be similar to what has occurred in the past, since this alternative would continue similar reservoir operations and the same irrigation diversions would occur. This reach of the river would continue to have low flows and higher temperatures during the summer months. Higher flows would be expected when adequate reservoir levels were present and lower flows during drought years.

#### Jefferson River

Median flows in the Jefferson River at Twin Bridges would remain above 700 cfs for the entire year (Figure 4.4). The average 10 driest years would range from 446 cfs in September to 3,123 cfs in June. September would be the only month in which flows dropped below 500 cfs. The model predicted flows in the Jefferson to drop below 500 cfs in 14 out of 74 years of record in September.

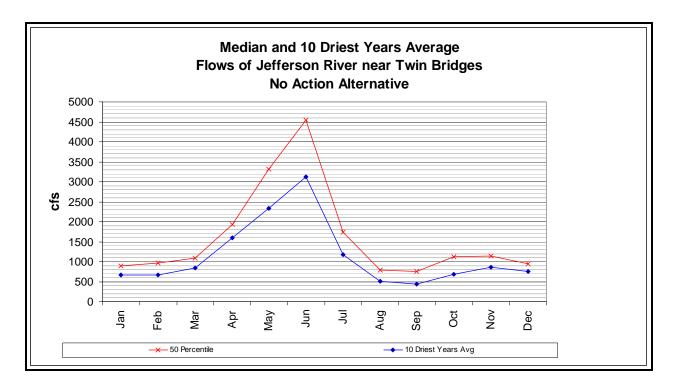


Figure 4.4: No Action Flows in the Jefferson River

#### **Preferred Alternative**

Fish condition, habitat, reservoir levels, and river flows will be very similar in the Preferred Alternative as compared to the No Action Alternative. However, the Preferred Alternative does include a drought management plan, minimum river flow releases, minimum reservoir levels, and the development of the MOU between Reclamation and the MDFWP. Fisheries would likely benefit from these additional measures included in this alternative. The development of the MOU between MDFWP and Reclamation will concentrate on the environmental health of the Beaverhead River. If the environmental health of the Beaverhead River is improved, the fishery would potentially improve. However, since improvement measures have not been identified, it's difficult to determine the extent of the fishery benefit. Therefore, the following analysis does not include any potential fishery benefit that is anticipated through cooperative effort.

#### Clark Canyon Reservoir

Effects to fisheries were considered adverse if they resulted in a substantial ( $\geq 5$  years) increase of incidence in declining years for fishery survival and production for the Preferred Action as compared to the No Action. Modeling indicated this alternative would result in better conditions for reservoir fisheries than the No Action Alternative (Table 4.4). This is because the Drought Management Plan would help conserve water when low water exists or a drought is forecasted. The Preferred Alternative would result

in three more years in the optimum or good categories compared to the No Action Alternative and three fewer years in fair or declining categories.

Table 4.4: Reservoir Fishery Conditions between the Two Alternatives

|            |                               | No Action |     | Preferred |     | Difference |
|------------|-------------------------------|-----------|-----|-----------|-----|------------|
| Conditions | Criteria                      | Years     | %   | Years     | %   |            |
| Optimum    | Sept EOM more than 100,000 AF | 20        | 27% | 19        | 26% | -1         |
| Good       | Sept. EOM 60,000-99,000 AF    | 14        | 19% | 18        | 24% | +4         |
| Fair       | Sept EOM 30,000-59,000 AF     | 7         | 9%  | 21        | 28% | +14        |
| Declining  | Sept EOM less than 30,000 AF  | 33        | 43% | 16        | 22% | -17        |

The Drought Management Plan benefits reservoir fisheries by improving 14 years of declining condition in No Action Alternative to the fair condition. Closer analysis reveals that 16 fair years were counted that had less than three months with pools less than 60,000 AF which would typically not drop below 50,000 AF, the trigger point for the Drought Management Plan. Although, this is still less than the threshold for the good category, these pools would provide better conditions than the No Action Alternative. The increased reservoir levels would provide increased opportunities for better fish condition, fish abundance, size, and health.

#### Upper Beaverhead River

Effects to fisheries were considered adverse if they resulted in a substantial ( $\geq 5$  years) increase of incidence in declining years for fishery survival and production for the Preferred Action as compared to the No Action. Modeling shows very similar upper Beaverhead River flows in the Preferred Alternative compared to No Action Alternative (Table 4.5). The alternative did show one more year in the optimum category and one year fewer in the good category. Two years moved from fair to the declining category in this alternative.

Table 4.5: Upper Beaverhead Fishery Conditions between the Two Alternatives

|            |                                  | No A  | ction | Preferred |     | Difference |
|------------|----------------------------------|-------|-------|-----------|-----|------------|
| Conditions | Criteria                         | Years | %     | Years     | %   |            |
| Optimum    | Oct-March Mean more than 200 cfs | 16    | 22%   | 17        | 23% | +1         |
| Good       | Oct-March Mean 125-199 cfs       | 8     | 11%   | 7         | 9%  | -1         |
| Fair       | Oct-March Mean 65-124 cfs        | 10    | 13%   | 8         | 11% | -2         |
| Declining  | Oct-March Mean less than 65 cfs  | 40    | 54%   | 42        | 57% | +2         |

As indicated in the previous paragraph, fish conditions would be expected to remain essentially the same between the two alternatives. Fish abundance, size, and health would be similar to the No Action Alternative. This alternative has a minimum winter flow associated with it and a drought management plan. These two components of the alternative were included to protect fish during extreme drought periods. Considering the modeling limitations, future conditions for fisheries in the upper Beaverhead River in the Preferred Alternative would be expected to be similar, if not improved, to historical conditions.

#### Lower Beaverhead River

These results were analyzed to compare the number of years during the period of record in which flows would be expected to drop below the 200 cfs level. A decrease in such years would have a positive fishery effect, while an increase would have a negative effect. Modeling indicates the Preferred Alternative would result in 47 out of 74 years where the river would drop below 200 cfs in September, one fewer year than in No Action Alternative. The hydrograph of the river is shown in Figure 4.5 for the median and the average 10 driest water years. Analysis shows there would be very little effect on the hydrograph in the Preferred Alternative. No effects to the fishery in this part of the river would be expected as part of implementing the Preferred Alternative when compared to the No Action Alternative. Low summer flows and altered hydrograph would continue, but the MOU to improve environmental health of the river will look into measures that will improve this section of the river. Improvement of this section of the Beaverhead River would benefit many fish species including the arctic grayling, a species petitioned to be listed as threatened or endangered by the Service. However, a fine balance will need to be determined; improving the river flows and temperature will likely improve the general fishery which includes non-native salmonids. These non-native fish easily out-compete grayling and prey on juvenile grayling that inhibits population growth.

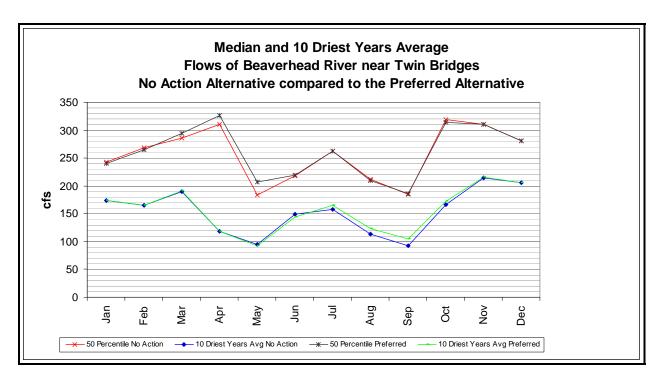


Figure 4.5: Lower Beaverhead Flows between the No Action and the Preferred Alternative

#### Jefferson River

The Jefferson River at Twin Bridges was also modeled to compare effects of the No Action Alternative to the Preferred Alternative. The overall hydrograph of this river was graphed to visualize any changes. The hydrograph of the various water year types under the Preferred Action alternative are shown superimposed over the No Action alternative graph in Figure 4.6. There appears to be no impact to any of the hydrographs as a result of implementing the Preferred Alternative and no effects to that fishery or any other parameters that affect the fishery would be expected.

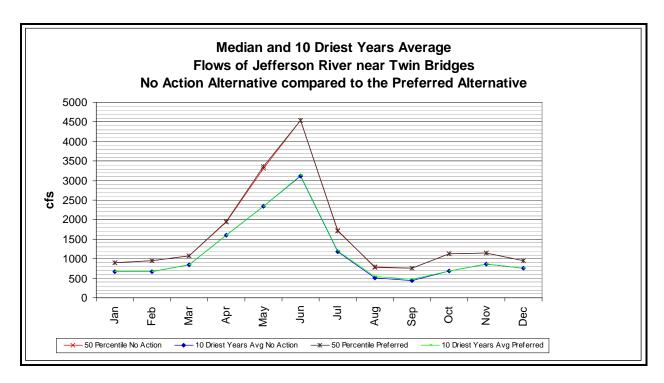


Figure 4.6: Jefferson River Flows in the No Action and Preferred

#### **Cumulative Impacts**

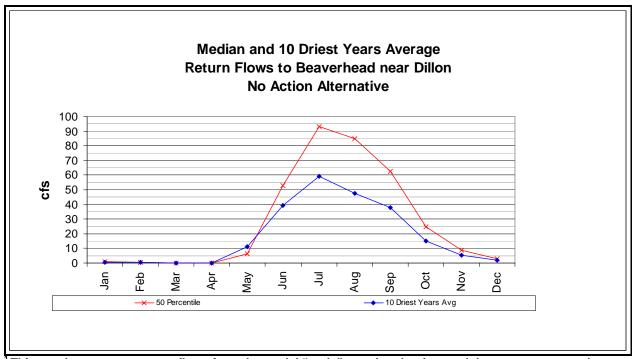
This EA identifies several past, present, and reasonably foreseeable future actions in the "Other Actions Occurring in the Beaverhead River Basin" section of Chapter 1. When the impacts of implementing this Federal action are added to these other actions, the conversion to repayment contracts would not cumulatively impact fisheries in either Clark Canyon Reservoir or the Beaverhead River.

#### Wetlands

#### **No Action Alternative**

Return flows provide a water source for wetlands along the periphery of irrigation drains and in areas down slope of irrigation facilities. Irrigation return flows are an essential water source for palustrine wetlands in the valley, so a large reduction could adversely affect them. Return flows were modeled at two points on the Beaverhead River to assess effects on wetlands recharged by irrigation seepage and

runoff. Figure 4.7 shows median return flow years and the 10 driest years for No Action expected near Dillon for the period of record. As the figure shows, return flows typically increase as the irrigation season begins, peak at the end of July, and then slowly decline until the beginning of the next irrigation season.

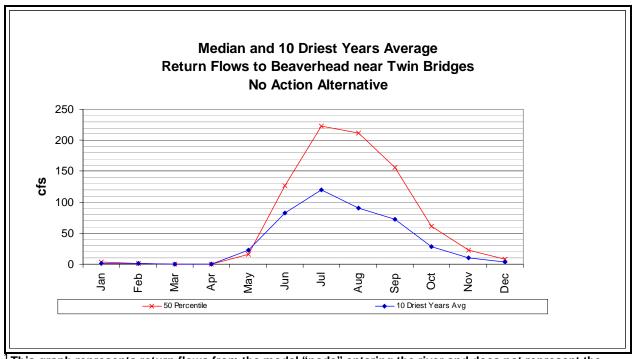


<sup>1</sup> This graph represents return flows from the model "node" entering the river and does not represent the total discharge of the river at this station.

Figure 4.7<sup>1</sup>: Return Flows to the Beaverhead near Dillon

Figure 4.8 shows median and driest return flow years expected at Twin Bridges. As in the previous figure, return flows typically increase with the irrigation season, peak at the end of July, and slowly decline.

The No Action Alternative would maintain current water deliveries to CCWSC and EBID. Wetlands associated with the districts along canals, laterals, and drains and all those supplied by general seepage would continue to receive similar volumes of water. The quantity and quality of wetlands and associated habitat, therefore, would remain unchanged from current conditions.



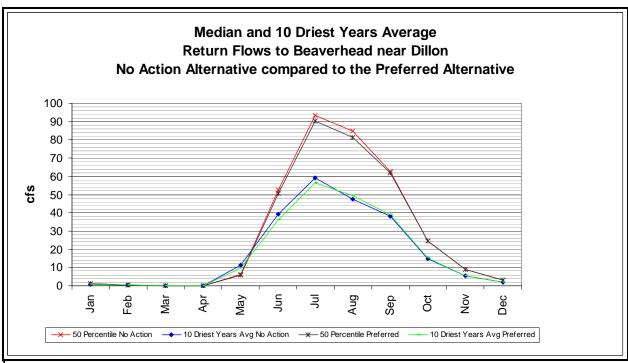
<sup>1</sup> This graph represents return flows from the model "node" entering the river and does not represent the total discharge of the river at this station.

Figure 4.8<sup>1</sup>: Return Flows to the Beaverhead near Twin Bridges

#### **Preferred Alternative**

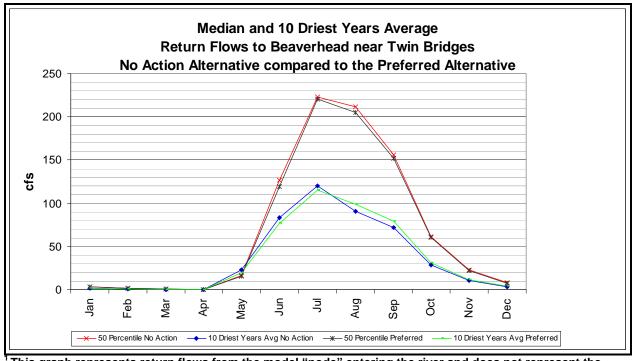
Irrigation return flows provide an essential water source for palustrine wetlands throughout the irrigation districts and a large reduction in return flows could negatively affect them. Figure 4.9 compares condition in No Action and the Preferred Alternatives in median return flow years and the 10 driest years expected near Dillon. As the figure shows, return flows in the Preferred would closely follow return flows in No Action both in time and volume of water returned to the river.

Figure 4.10 compares median and driest return flow years expected at Twin Bridges under the No Action and Preferred Alternatives. As shown in the previous figure, return flows in the Preferred Alternative would closely follow return flows in No Action both in time and volume of water returned to the river.



<sup>1</sup> This graph represents return flows from the model "node" entering the river and does not represent the total discharge of the river at this station.

Figure 4.9<sup>1</sup>: Return Flows to the Beaverhead near Dillon



<sup>1</sup> This graph represents return flows from the model "node" entering the river and does not represent the total discharge of the river at this station.

Figure 4.10<sup>1</sup>: Return Flows to the Beaverhead near Twin Bridges

The alternative would not result in the loss or degradation of wetlands in the Beaverhead River Basin when compared to No Action. Continued operation of diversions, canals, laterals and related water conveyance and distribution facilities would not lead to loss or degradation of wetlands areas. Wetlands associated with the irrigation districts—both through seepage and directly along canals, laterals, and drains—would continue to receive similar volumes of water. Timing of water deliveries would remain similar to No Action. Effects to wetlands would be negligible in this alternative and minimum impacts would be expected.

Drought conditions affect surface water (including wetlands) and available irrigation water. The Preferred Alternative would include a Drought Management Plan. Maintaining minimum water levels in the reservoir and river would benefit wetlands located on the periphery of these systems.

#### **Cumulative Impacts**

This EA identifies several past, present, and reasonably foreseeable future actions in the "Other Actions Occurring in the Beaverhead River Basin" section of Chapter 1. When the impacts of implementing this Federal action are added to these other actions, there are no cumulative impacts to wetlands identified as part of the conversion to repayment contracts.

#### Wildlife

#### No Action Alternative

Wildlife habitat trends in the Beaverhead River basin including Clark Canyon Reservoir are expected to be similar as they have in the past. Operations of the reservoir and river releases from the dam will not change with the renewal of the water service contracts with CCWSC and EBID.

Clark Canyon Reservoir lands would continue to provide short grass prairie habitat with intermittent sagebrush, riparian areas, and exposed mud flats during drawdown. Water levels would continue to fluctuate; however, reservoir levels would typically be the highest during the late winter to spring and then would start to decline once irrigation water is requested. This declining water level would not present a problem with nesting birds and would provide shorebirds with habitat during both spring and fall migrations. The wet and semi-wet cattail and willow dominated areas near Red Rock River and Horse Prairie Creek inflows would continue to provide forage and nesting habitat. There would be no impacts to migratory birds, as habitat would continue to be available.

The No Action Alternative would continue to provide suitable habitat for wildlife below the dam, and no change would be expected for the Wildlife Viewing Area on the Beaverhead River.

#### **Preferred Alternative**

Since the contracts with CCWSC and EBID would continue similar operations as in No Action Alternative, it would be expected that current wildlife habitat trends in the Beaverhead River basin would also continue. Clark Canyon Reservoir lands would continue to provide short grass prairie habitat with intermittent sagebrush, riparian areas, and exposed mud flats during drawdown. Water levels would continue to fluctuate, providing shorebirds with habitat during both spring and fall migrations. The wet

and semi-wet cattail and willow dominated areas near Red Rock River and Horse Prairie Creek inflows would continue to provide forage and nesting habitat. Similar to the No Action Alternative, there would be no impacts to migratory birds, as habitat would continue to be available.

As stated previously, the Preferred Alternative includes a Drought Management Plan, minimum reservoir levels, and minimum river releases. Neither the Drought Management Plan nor the minimum requirements would affect wildlife in the Beaverhead River basin or on lands surrounding the reservoir. Therefore, no effects to wildlife are expected under this alternative.

#### **Cumulative Impacts**

The proposed action would have no effect on wildlife. Therefore, analysis of potential cumulative effects on wildlife is not required.

## **Threatened and Endangered Species**

#### No Action Alternative

The effects of this alternative on Federally-listed species would be similar to current conditions. Following is the effects analysis on the species that might be present in the action area. There is no critical habitat designation surrounding Clark Canyon Reservoir or the Beaverhead River.

#### Bald Eagle

On May 24, 2005 and updated on February 8, 2006, the Montana Natural Heritage Program provided Reclamation with a list of all known bald eagle nests in the vicinity (see Table 3.5). Reclamation determined that none of these nests are located on or immediately surrounding Clark Canyon Reservoir. Some of the nests listed in Table 3.5 are adjacent to the Beaverhead River and no nests would be disturbed as part of the No Action Alternative.

This alternative would maintain current water deliveries, current trends, operations, and human disturbance levels. Minimum releases would be set at the 25 cfs level, but this alternative does not contain a mandatory minimum release. Therefore, there may be times of extreme drought conditions that these minimum releases fall below the 25 cfs value. If this occurs, it is highly dependent on the length of the drought, but this alternative is expected to have no effect on bald eagles because future operating conditions will be similar to past conditions.

#### Ute Ladies' Tresses

On February 8, 2006, the Montana Natural Heritage Program provided Reclamation with a list of all known Ute Ladies' Tresses locations in the vicinity of the project area (Table 3.6).

There would be little change in the current reservoir operations associated with this alternative. Current wetlands would be maintained since this alternative would maintain current water deliveries. There is no ground disturbing activities proposed under this alternative. Because of no change in reservoir operations, no change in wetlands, and no ground disturbance activities in the No Action Alternative, there would be no effect to the Ute ladies' tresses.

#### Canada Lynx

Suitable habitat is located outside the area of potential effects, but there is the possibility of the Canada lynx traveling through the area. Current trends, populations, and human disturbance levels would continue as at present. As a result, there would be no effects to the Canada lynx in No Action.

#### Grizzly Bear

Suitable habitat is located outside the area of potential effects, but there is the possibility of the grizzly bear frequenting the Clark Canyon Reservoir area. Current trends, populations, and human disturbance levels would continue as present in this alternative. Therefore, there would be no effect to the grizzly bear.

#### Gray Wolf

Wolves could disperse through the area of potential effects. Current trends, populations, and human disturbance levels would continue as at present. Therefore, there would be no effect to gray wolves in the No Action Alternative.

#### **Preferred Alternative**

The Preferred Alternative would incorporate new contracts based on a priority system similar to No Action Alternative. Therefore, effects on Federally listed species that occur in the area or that may migrate through the area would be similar to the No Action Alternative.

#### Bald Eagle

As indicated in the No Action Alternative, the Montana Natural Heritage Program reported nest sites in the Beaverhead Valley (Table 3.5). Reclamation determined that none of these nests are located on or immediately surrounding Clark Canyon Reservoir. Some of these nests are located adjacent to the Beaverhead River. There would be no construction associated with the alternative and no nests would be disturbed as part of the Preferred Alternative.

This alternative would continue water deliveries, trends, operations, and human disturbance levels similar to what is expected to occur in the No Action Alternative. However, implementation of a drought management plan and minimum releases guidelines of 25 cfs are a part of this alternative. During extreme drought periods, the drought management plan and minimum releases would be expected to protect fish and bald eagle prey in the Beaverhead River. Implementation of the Preferred Alternative would have no effect on bald eagles.

#### Ute Ladies' Tresses

As indicated in the No Action Alternative, the Montana Natural Heritage Program reported the presence of Ute ladies' tresses at three locations in the Beaverhead Valley (Table 3.6). The Preferred Alternative would maintain current water deliveries and there would be little change in reservoir operations. This alternative would only provide irrigation water to existing farmlands, and there would be no conversion of wetlands to farmlands. Stored irrigation water would continue to indirectly provide water to wetlands and marsh areas. Given the fact that it would maintain similar water deliveries and no new farmlands would be created, Reclamation determined that the Preferred Alternative would have no effect on the Ute ladies' tresses.

#### Canada Lynx

Suitable habitat is located outside the area of potential effects, but there is the possibility of the Canada lynx dispersing through the area. Current trends, populations, and human disturbance levels would continue as at present. Thus, there would be no effect to Canada lynx in the Preferred Alternative.

#### Grizzly Bear

Suitable habitat is located outside the area of potential effects, but there is the possibility of the grizzly bear dispersing through the area. Current trends, populations, and human disturbance levels would continue as present in the Preferred, so there would be no effect to the grizzly bear.

#### Grav Wolf

Gray wolves could disperse through the area of potential effects. Since current trends, populations, and human disturbance levels are expected to continue, there would be no effect to gray wolves in the Preferred Alternative.

## **Cumulative Impacts**

The conversion to repayment contracts as outlined in the Preferred Alternative would have no effect on threatened or endangered species. Therefore, analysis of potential cumulative effects on threatened or endangered species is not required.

#### Social and Economic Conditions

Hydrology models for the study predicted changes in the average annual water supply to farms for the different alternatives. The model results, accounting for conveyance system losses and on-farm efficiencies, were used to evaluate the potential impacts to the irrigators. The indicator used in the analysis is the amount of water available for beneficial use by the crop, as measured at the crop root zone.

The two primary methods of applying irrigation water to crops utilized by irrigators in the both the CCWSC and the EBID are flood and sprinkler application techniques. Due to the difference in efficiencies in the two methods, the amount of water diverted at the river headgate to the crop root zone is different for the two irrigation methods.

#### No Action Alternative

Table 4.7 displays the water delivered to the crops, at the crop root zone, for the No Action Alternative. For the CCWSC, an average of 1.47 AF/ac would be delivered to their sprinkler-irrigated crops and an average of 1.36 AF/ac would be delivered to the flood irrigated crops. Water delivered to all crops would average 1.45 AF/ac for the 33,706 acres of the CCWSC.

For EBID, 1.04 AF/ac would be delivered to their sprinkler-irrigated crops and 1.01 AF/ac to the flood-irrigated crops. Water delivery would average 1.04 AF/ac to the crops grown on the 27,137 acres of the EBID.

Table 4.7: Water Deliveries to the crop root zones in the No Action Alternative

|       |                      | <i>AF/ac</i> (33,706 ac) |
|-------|----------------------|--------------------------|
|       | Sprinkler Crops      | 1.47                     |
| CCWSC | Flood Crops          | 1.36                     |
|       | Average to the Crops | 1.45                     |
|       |                      | AF/ac                    |
|       |                      | (27,137 ac)              |
|       | Sprinkler Crops      | 1.04                     |
| EBID  | Flood Crops          | 1.01                     |
|       | Average to the Crops | 1.04                     |

Agriculture, forestry, fishing and hunting, and mining (as a group) are the 2<sup>nd</sup> leading industry influencing the regional economy (see Table 3.10). Irrigated agriculture economy and recreation economy (primarily fishing) is dependent on water available in Clark Canyon Reservoir and the Beaverhead River. The No Action Alternative would not change the amount of water delivered through the system; therefore, it would have similar economic influences and impacts to what has occurred in the past.

#### **Preferred Alternative**

Table 4.8 shows the water delivered to the crop root zones for the Preferred Alternative. For the CCWSC, an average of 1.38 AF/ac would be delivered to sprinkler-irrigated crops and an average of 1.29 AF/ac to the flood-irrigated crops. Water delivery would thus average 1.36 AF/ac to the 33,706 acres of the CCWSC.

For EBID, an average of 1.05 AF/ac would be delivered to sprinkler-irrigated crops and an average of 1.01 AF/ac to flood-irrigated crops. Water delivery would thus average 1.05 AF/ac for the 28,055 acres of the EBID.

Table 4.8: Water Deliveries to the crop root zones in the Preferred Alternative

|       |                      | <i>AF/ac</i> (33,706 ac)    |
|-------|----------------------|-----------------------------|
|       | Sprinkler Crops      | 1.38                        |
| CCWSC | Flood Crops          | 1.29                        |
|       | Average to the Crops | 1.36                        |
|       |                      | <i>AF/ac</i><br>(28,055 ac) |
|       | Sprinkler Crops      | 1.05                        |
| EBID  | Flood Crops          | 1.01                        |
|       | Average to the Crops | 1.05                        |

Water users in the CCWSC would receive on average slightly less water in the Preferred Alternative when compared to No Action Alternative due to the implementation of the DMP. With the addition of the 918 acres to the EBID, little change is discernable to their crops when comparing the No Action Alternative to the Preferred Alternative, based on average conditions. There are benefits to the EBID due to implementation of the DMP in below average water years.

As mentioned in the No Action Alternative, irrigated agriculture economy and recreation economy (primarily fishing) is dependent on water available in Clark Canyon Reservoir and the Beaverhead River. This alternative would not change the volume of water delivered through the system and the economic influences and impacts would be similar to the No Action Alternative. On the basis of the regional irrigated agricultural economy, the Preferred Alternative would allow more irrigated acreage, the extra water to be distributed between the CCWSC and EBID in a more equitable manner. The decrease in water delivered to CCWSC in the Preferred Alternative would be minimal that no financial burden would be placed on CCWSC shareholders. This alternative would also allow EBID to receive some water in water-short years, which would not happen under the No Action Alternative. The Preferred Alternative would have similar economic influences and impacts to what would occur with implementation of the No Action Alternative.

## **Cumulative Impacts**

As stated above, the Preferred Alternative would have similar economic influences and no impacts to what will occur with implementation of the No Action Alternative. Therefore, there are no cumulative impacts to economics identified as part of the conversion to repayment contracts.

#### Recreation

The Methods of Analysis section provides information on how effects of the alternatives were estimated.

#### No Action Alternative

This alternative would continue to deliver water for irrigation similar to what occurs presently. Recreational opportunities would not change and facilities would not be altered. Recreational angling and commercial angling would continue. The number of visitors utilizing the facilities would be dependent on reservoir water levels and fishing success. Reservoir water levels would be dependent on irrigation demands, drought conditions, and inflows. Implementation of this alternative would not impact other Federal lands managed by other Federal agencies.

#### Clark Canyon Reservoir

Operation of the reservoir would continue as present. As indicated previously, no change in recreation facilities would occur, and any future proposed land and recreation facility changes are beyond the scope of contract renewal.

Use of boat ramps would depend on water levels and locations. In dry years, several boat ramps do not reach the water's edge at present. Beaverhead Campground north boat ramp provides low-water boat launch capabilities. Boat launching would be restricted to this single ramp in dry years, but boating and other water-based recreational activities would continue.

Median reservoir elevation is 5,533 feet msl, with the 20<sup>th</sup> percentile elevation at 5,512 feet msl, in comparison to the boat ramp elevations listed in Table 4.9.

Table 4.9: Boat Ramp Elevations in the No Action Alternative (feet msl)

| Ramp                           | Top of Ramp<br>(ft) | End of Ramp (ft) | Current Status          |
|--------------------------------|---------------------|------------------|-------------------------|
| Beaverhead Campground<br>North | 5535                | 5496             | Open                    |
| Beaverhead Campground<br>South | 5540                | 5525 (est)       | Open                    |
| Beaverhead Marina              | 5540                | 5525 (est)       | Marina closed           |
| Horse Prairie Campground       | 5540                | 5525 (est)       | Ramp closed as unstable |
| Lone Tree Campground           | 5538                | 5533             | Open                    |

Beaverhead River access below the dam would not change in this alternative. Visitation at the reservoir would remain constant or increase slightly in the future due to increases in the general population. Commercial users would continue to use Reclamation lands and facilities to access Clark Canyon Reservoir and the upper Beaverhead River. Reclamation will continue to identify commercial uses of Reclamation facilities and lands and permit accordingly.

#### Barretts Diversion Dam

Fluctuations in the Beaverhead River would continue in this alternative as they do at present. Most water-based recreational activities occur during the April-September irrigation season, when river flows at Barretts Diversion Dam are the highest.

#### **Preferred Alternative**

This alternative would continue to deliver water for irrigation similar to the No Action Alternative. Recreational opportunities would not change and facilities would not be altered. Recreational angling and commercial angling would continue. The number of visitors utilizing the facilities would be dependent on reservoir water levels and fishing success. Reservoir water levels would be dependent on irrigation demands, drought conditions, and inflows. Implementation of this alternative would not impact other Federal lands managed by other Federal agencies. When compared to the No Action Alternative, there would be no change to recreation opportunities or recreation facilities.

#### Clark Canyon Reservoir

This alternative would not affect recreational facilities or opportunities at Clark Canyon Reservoir.

Recreational facilities would continue to be operated as in the past. Recreational opportunities and annual use levels would not change from current levels with the implementation of the new contracts. Recreational use levels are dependent on fluctuating water levels which would continue as present because of contractual water deliveries and Beaverhead River access below the dam would not change in this alternative. Visitation at the reservoir would remain constant or increase slightly in the future due to increases in the general population. Commercial users would continue to use Reclamation lands and facilities to access Clark Canyon Reservoir and the upper Beaverhead River. Reclamation will continue to identify commercial uses of Reclamation facilities and lands and permit accordingly.

The Preferred Alternative EOM reservoir elevations and Beaverhead River flows measured at Barretts Diversion Dam would be similar to the No Action Alternative as shown in Table 4.10.

#### Barretts Diversion Dam

The implementation of this alternative would not adversely affect recreation or recreation opportunities at Barretts Diversion Dam. Recreational facilities would continue to be operated as they have in the past. Recreation opportunities and use levels would not change due to the renewal and implementation of the new contracts. Differences in the median Beaverhead River flows between the two alternatives are shown in Table 4.10.

Table 4.10: Median EOM Reservoir Levels (ft) and Median Beaverhead River Flows (cfs) Measured at Barretts Diversion Dam

|           | No A                   | ction                        | Preferred A         | Iternative                      |
|-----------|------------------------|------------------------------|---------------------|---------------------------------|
|           | EOM Elevations<br>(ft) | Beaverhead River flows (cfs) | EOM Elevations (ft) | Beaverhead<br>River flows (cfs) |
| January   | 5536                   | 106                          | 5537                | 106                             |
| February  | 5538                   | 111                          | 5539                | 109                             |
| March     | 5541                   | 148                          | 5542                | 146                             |
| April     | 5543                   | 220                          | 5544                | 236                             |
| Мау       | 5545                   | 334                          | 5546                | 355                             |
| June      | 5540                   | 914                          | 5540                | 901                             |
| July      | 5530                   | 1139                         | 5530                | 1093                            |
| August    | 5520                   | 761                          | 5522                | 677                             |
| September | 5515                   | 356                          | 5518                | 375                             |
| October   | 5522                   | 111                          | 5524                | 112                             |
| November  | 5528                   | 116                          | 5529                | 116                             |
| December  | 5533                   | 108                          | 5533                | 108                             |

Only five months would the Beaverhead River flows be less in the Preferred Alternative when compared to the No Action Alternative. However, during those same five months, the median EOM reservoir levels would be remain the same between the two alternatives or slightly higher in the Preferred Alternative (Table 4.10). There is a correlated balance between reservoir levels and in stream flows. These in stream flow differences are primarily attributed to the implementation of a drought management plan. During drought years, releases would be decreased during the prime irrigation season in the attempt to retain more reservoir storage for carry over. The lowest predicted flows during the prime recreation season (June, July, and August) are 677 cfs. Flows near that rate provide ample recreational opportunities.

Therefore, the decreased river flows in the Preferred Alternative would not adversely affect the Beaverhead River recreational opportunities or recreation opportunities at Barretts Diversion Dam.

## **Cumulative Impacts**

This EA identifies several past, present, and reasonably foreseeable future actions in the "Other Actions Occurring in the Beaverhead River Basin" section of Chapter 1. Multiple recreational opportunities exist at Clark Canyon Reservoir and the Beaverhead River. When the impacts of implementing this Federal action are added to these other actions, there are no cumulative impacts to recreation or recreational opportunities identified as part of the conversion to repayment contracts.

## Other Resources Potentially Affected

Although no issues with the following resources were identified during scoping meetings or by the study team, consideration is required by Federal regulation.

#### **Water Conservation**

#### No-Action Alternative

The requirement for CCWSC and EBID to comply with Section 210 of the Reclamation Reform Act would remain in effect. Both districts would be required to update their water conservation plans under Section 210 at least every five years. NEPA compliance would be done when specific measures were implemented.

#### Preferred Alternative

No specific water conservation measures were included, and any measures requiring Federal action would be evaluated as the need arose. Both districts would be required to update their water conservation plans according to Section 210. The Memorandum of Agreement with MDFWP will consider various water conservation measures that can be implemented, but none yet have been identified.

#### **Cultural Resources**

Impacts to cultural resources were evaluated to comply with cultural resource statutes and executive orders, effects on cultural resources focused on these questions related to contract renewal:

- How would renewal of the irrigation contract at Clark Canyon Reservoir affect historic and prehistoric cultural resources?
- How would contract renewal affect Indian sacred sites on lands managed by Reclamation?

#### No Action Alternative

The area has been farmed and irrigated for 50 years, and—in some cases—for over 100 years. These farmed areas will continue to be farmed as they have in the past. Reclamation has determined that many of the canals and laterals of CCWSC meet the definition of a historic property. However, the EBID canals and laterals are not 50 years old and do not meet the exceptional significance criteria definition for

a historic property. No change to either CCWSC or EBID's canals and laterals are proposed under this alternative.

This alternative would not affect the function or usefulness of the canals or laterals, there would be no effect on historic properties. Reclamation has determined that renewing water service contracts or converting to repayment contracts do not have the potential to cause effects to cultural resources. Therefore, this alternative will have no potential to effect cultural resources or historic properties.

#### Preferred Alternative

The additional irrigated acreage that may be added to the EBID under this alternative has been farmed in the past. Establishment of a Drought Management Plan and formation of a Joint Board would be administrative changes. Effects to cultural resources would thus be non-existent.

As described in the No Action Alternative, Reclamation has determined that renewing water service contract or converting to repayment contracts do not have the potential to cause effects to cultural resources. The Preferred Alternative will have no potential to effect cultural resources or historic properties.

#### **Noxious Weeds**

The Montana County Noxious Weed Control Law (MCA 7-2101 through 2153), was established to protect Montana from destructive noxious weeds. Noxious weeds can cause lower crop yields, increased maintenance, displace native plant communities, and lower biodiversity. Controlling noxious weeds is good farming practice.

#### No Action Alternative

The No Action Alternative would continue present noxious weed practices, so no change in noxious weed management on private or Federal land in CCWSC or EBID would be expected.

#### Preferred Alternative

Like the No Action Alternative, this alternative would continue present noxious weed practices, so there would be no change expected in noxious weed management on private or Federal land in CCWSC or EBID.

#### **Prime and Unique Farmlands**

#### No Action Alternative

Prime farmland acreage serviced by CCWSC and EBID would remain unchanged in this alternative.

#### Preferred Alternative

Prime farmland acreage served by CCWSC would remain unchanged in this alternative. Prime farmland acreage served by EBID would increase by 918 acres if the EBID boundaries were formally changed. If the 918 acres met the criteria for Prime and Unique Farmlands, the increase would constitute a positive effect.

#### **Cumulative Impacts**

The conversion to repayment contracts as outlined in the Preferred Alternative would have no effect on other resources. Therefore, analysis of potential cumulative effects on the various other resources is not required.

#### **Environmental Measures**

Reclamation has agreed to the following measures as part of the Preferred Alternative.

- Reclamation and the MDFWP have developed a partnership agreement (a copy is in the Appendix) to work cooperatively on issues; such as fisheries, water quality, and flow alteration that affect the Beaverhead River basin. This agreement will foster communication between the two agencies. Through this cooperation and coordination; Reclamation will also encourage other interested entities to participate—including (but are not limited to) CCWSC, EBID, the Beaverhead River Watershed Committee, special interest groups, and any others that would like to contribute to the well being of the Beaverhead River.
- Continue data collection through MSU-Bozeman and Montana Tech to fill data gaps in existing water quality information. Additional studies would be initiated as needed.
- Work cooperatively with MDEQ during the TMDL planning and implementation process to work toward improving water quality on a watershed scale.
- Work cooperatively with the Beaverhead Watershed Group and other interested parties to collaboratively work toward improved water quality conditions within the watershed.

# CONSULATION COORDINATION AND PUBLIC INVOLVEMENT CHAPTER 5

Chapter 5 describes Reclamation's public involvement, consultation, and coordination with state and other Federal agencies and interest groups during development of this EA.

#### Consultation

#### **Endangered Species Act**

Reclamation informally consulted with the U.S. Fish and Wildlife Service on the Endangered Species Act beginning in January 2005. Reclamation determined that the Federal action would have no effect to the five threatened species found in the action area. This determination was discussed with the Service during the informal consultation.

After the 2<sup>nd</sup> comment period ended (June 12, 2006), the Service sent Reclamation a memorandum recommending that the appropriate determination for bald eagles is "May Effect [sic] Not Likely to Adversely (Affect)." According to the Service, this determination was based on the possibility of reduced prey abundance in the lower river. Reclamation did not agree with the Service's recommendation because various components of the Preferred Alternative maintain or increase fish and prey abundance for bald eagles. Reclamation remained with their initial determination that this Federal action would have no effect on the bald eagle.

#### **National Historic Preservation Act**

The National Historic Preservation Act of 1966 (as amended in 1992) requires Federal agencies to consult with the Advisory Council on Historic Preservation concerning effects of Federal actions on historic properties. Reclamation has determined, as prescribed in 36 CFR 800.3(a)(1), that the proposed contract renewals are a type of undertaking that do not have the potential to cause effects on historic properties, and therefore has not consulted with the Advisory Council on Historic Preservation, the State Historic Preservation Officer, or other interested parties.

### **Other Federal Requirements**

Neither of the alternatives would include development in the flood plain as described in Executive Order 11988, Floodplain Management or would include development that would affect wetlands as described in Executive Order 11990, Protection of Wetlands. The Federal action in this EA would also comply with Executive Order 13286, Protection of Migratory Birds.

#### Coordination

The following agencies and interest groups were coordinated with during the study:

- U.S. Fish and Wildlife Service As discussed previously, the Endangered Species Act requires consultation between the Service and other Federal agencies if the Federal action is determined to affect listed species. Reclamation began informal consultation with the Service and met with the Service in January 2005 and January 2006 to discuss the proposed action, fish and wildlife resources, and threatened or endangered species. Through discussions with the Service, Reclamation determined there would be no effect to threatened or endangered species. However, after the 2<sup>nd</sup> comment period ended (June 12, 2006), the Service sent Reclamation a memorandum in regards to EA. The memorandum recommended that Reclamation include additional discussion on fish and wildlife resources and believes the appropriate determination for bald eagles is "May Effect [sic] Not Likely to Adversely (Affect)", based on the possibility of reduced prey abundance. Reclamation discussed this memorandum with the Field Supervisor, Ecological Services, Montana Field Office on June 20, 2006. As discussed in the Consultation Section above, Reclamation remained with their initial determination that this Federal action would have no effect on the bald eagle.
- **U.S. Army Corps of Engineers** The Corps submitted scoping comments mentioning flood control regulation and capacity curves.
- U.S. Natural Resources Conservation Service This agency assisted with the prime and unique farmlands sections.
- Montana Fish, Wildlife and Parks Reclamation met with MDFWP to discuss past fishery data and effects of new contracts on the fishery, both in the reservoir and the rivers. In addition, MDFWP participated in the development of fishery criteria for analysis. MDFWP has entered into a MOU with Reclamation to improve the environmental health of the Beaverhead River. A copy of the MOU is in the appendix.
- Montana Department of Natural Resources and Conservation This agency participated in some of the contract technical meetings.
- Clark Canyon Water Supply Company CCWSC also participated in the contract technical meetings and reviewed alternative proposals,
- **East Bench Irrigation District** EBID participated in the contract technical meetings and reviewed alternative proposals.

#### **Public Involvement**

#### Scoping

Internal scoping was conducted by Reclamation to determine concerns that could arise from renewing water service contracts or converting them to repayment contracts. Letters and postcards were sent out to the public announcing the proposed Federal action on December 17, 2004. Reclamation placed paid public notices in local newspapers announcing the scoping process and placed all information on Reclamation's website: <a href="www.usbr.gov/gp/mtao">www.usbr.gov/gp/mtao</a>. Reclamation received input from the public during the 36 day public scoping process, including public meetings held in Dillon, Montana, January 11, 2005, and Twin Bridges, January 12, 2005. These meetings consisted of a short presentation on contract renewal

followed by an open house to allow members of the public to ask questions. There were 27 attendees in Dillon and 18 attendees in Twin Bridges. Reclamation received written comments from 18 entities during the scoping process. The Public Comments and Responses section at the end of this report summarizes these comments.

#### **Public Comment Period**

Reclamation conducted two public comment periods during the NEPA process. The first public comment period began November 17, 2005 following the completion of the draft EA. Correspondence was mailed announcing the release of the draft EA. Paid public notices were placed in local newspapers and all notices and documents were placed on Reclamation's website: <a href="www.usbr.gov/gp/mtao">www.usbr.gov/gp/mtao</a>. Initially, Reclamation had a 20 day comment period, but extended that period an additional 13 days. During the comment period, Reclamation conducted two public comment meetings; November 30, 2005 in Dillon, Montana and December 1, 2005 in Twin Bridges, Montana. These meetings consisted of a short presentation followed by an open house to allow members of the public to ask questions. There were 11 attendees in Dillon and 9 attendees in Twin Bridges. Reclamation received written comments from 77 entities. These comments and responses are listed in the Public Comments and Responses section at the end of this document.

The second public comment period began May 10, 2006 following the completion of the *revised* draft EA. Correspondence was mailed announcing the release of the *revised* draft EA. Paid public notices were placed in local newspapers and all notices and documents were placed on Reclamation's website: <a href="https://www.usbr.gov/gp/mtao">www.usbr.gov/gp/mtao</a>. This 32 day comment period included two public comment meetings, the first in Dillon, Montana on May 22, 2006 followed by a meeting in Butte, Montana on May 23, 2006. These meetings were an open house format with Reclamation staff on hand to answer any questions the public may have on the *revised* draft EA. There were 14 attendees in Dillon and 8 attendees in Butte. Reclamation received written comments from 36 entities. These comments and responses are listed in the Public Comments and Responses section at the end of this document.

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