



# United States Department of the Interior

BUREAU OF RECLAMATION  
UPPER COLORADO REGIONAL OFFICE  
P.O. BOX 11568  
SALT LAKE CITY, UTAH 84147



IN REPLY  
REFER TO:

UC-773/UC-751

**RECEIVED**

DEC 27 1993

DEC 22 1993

WATER RIGHTS  
SALT LAKE

To: Government Agencies on Enclosed List

Subject: Final Assessment for Construction of a Lower Provo River Endangered Fish Weir (Environmental Assessment)

The Bureau of Reclamation distributed a draft Environmental Assessment for Construction of a Lower Provo River Endangered Fish Weir on November 30, 1993, and requested comments by December 17, 1993. Due to the lack of input regarding the document and anticipated favorable impacts to the environment, a Finding of No Significant Impact (FONSI) is appropriate for this action.

Enclosed is an executed copy of the FONSI and supporting documentation.

Sincerely,

*for* Roland Robison  
Regional Director

Enclosure

Mailing List

Director  
Utah Division of Water Rights  
1636 West North Temple  
Suite 220  
Salt Lake City UT 84116-3156

Director  
Utah Division of Wildlife Resources  
1596 West North Temple  
Salt Lake City UT 84116

Projects Manager  
Bureau of Reclamation  
P.O. Box 51338  
Provo UT 84605-1338

Assistant Field Supervisor  
Fish and Wildlife Service  
2060 Administration Building  
1745 West 1700 South  
Salt Lake City UT 84104-5110

City of Provo  
Water Resources Department  
P.O. Box 1849  
Provo UT 84603

Utah County Engineer  
2855 South State Street  
Provo UT 84606

**FINAL ASSESSMENT  
AND  
FINDING OF NO SIGNIFICANT IMPACT**

**For  
Construction  
of a  
Lower Provo River Endangered Fish Weir**

**December 21, 1993**

**Bureau of Reclamation  
Regional Office  
Salt Lake City, Utah**

**FINDING OF NO SIGNIFICANT IMPACT**

**For**

**Construction**

**of a**

**Lower Provo River Endangered Fish Weir**



Regional Environmental Officer

12 / 23 / 93

Date

for 

Manager, Native American Affairs Program

12/23/93

Date



Chief, Planning and Environmental Division

12/23/93

Date



Regional Director

12/22/93

Date

for

## Purpose and Need

Construction of a fish weir and fish holding facility on the lower Provo River would provide a barrier to upstream fish migration and a research location to capture and study the endangered June sucker. This facility is necessary to stabilize and recover native populations of the endangered June sucker before this fish becomes extinct.

## History and Background

The June Sucker is listed as an endangered species under the Endangered Species Act of 1973, as amended. Historically, this unique species of Chasmistes, known as the lake suckers, was abundant in the Utah Lake system in Utah County, Utah. Native Americans and early settlers harvested large numbers of June Sucker during suckers' annual spawning migration up tributary rivers of Utah Lake. However, as European settlers increasingly modified Utah Lake and its tributaries for agricultural, industrial, and municipal purposes, native fishes began to decline. During the 1930's, a severe drought increased the demand for irrigation waters, and Utah Lake was drawn down significantly; literally millions of fish died during the drought period. In the 1950's a further negative influence was added to the system: non-native, predaceous sport fish were introduced to Utah Lake. Combined with blocked, de-watered, and polluted spawning tributaries, sport fish introduction results in a precipitous decline in June Sucker numbers. It is now believed that, even though limited spawning occurs in the Provo River each spring, young fish do not survive to adulthood. All June Sucker captured in recent years have been old individuals; members of the June Sucker Recovery Team believe that these mature fish are nearing senescence.

Critical to recovery efforts for the June Sucker are research programs to define life history strategies, spawning requirements, feeding habits, habitat use, and competitive interactions. Researchers from the Utah Division of Wildlife Resources (UDWR) have been conducting June Sucker research in an effort to answer basic biological and ecological questions. To collect specimens and basic biological data, researchers have been constructing, on an annual basis, a small fish weir in the lower Provo River. However, efforts to capture adult fish at this site have been hampered by unpredictable river fluctuations, lack of a stable, structurally-sound weir, and lack of on-stream fish-holding facilities.

Drought conditions in the Provo River also increase the incidence of massive carp migrations and die-offs in the lower Provo River. Construction of a fish weir, operable at different times of the year and at different flow levels, would be beneficial to the City of Provo in alleviating non-native fish problems and excessive clean-up costs.

The weir would be operated by UDWR during June Sucker spawning periods, and afterwards by the City of Provo during summer and fall periods when carp generally migrate upstream into the city.

## Proposed Action and Alternatives

### **Proposed Action**

The proposed action is to design and construct a weir and fish holding facility in the lower Provo River.

All property effected by this action belongs to Utah County and is located at SE quarter of Section 4, Township 7S, Range 2E of Salt Lake Base and Meridian (Attachment 1). A letter was received from Utah County granting permission for construction activities (Attachment 2).

Funds for construction would be transferred to the City of Provo via a Cooperative Agreement. Long term operation and maintenance of the facility would be the responsibility of UDWR and the City of Provo.

### **No Action Alternative**

The No Action Alternative involves no design or construction of the weir. This alternative leaves researchers to continue using primitive methods to recover June Sucker.

The City of Provo would continue to collect carp carcasses at considerable cost to the city during drought conditions and other low flow years.

## Affected Environment and Environmental Consequences

### **Water Quality**

Construction of the weir would temporarily increase sediment transport in the lower Provo River. Construction would occur during a low flow period. Increased sediment would be deposited in low velocity reaches of the river. These areas normally receive the river's sediment load, and a temporary increase in deposition should not adversely impact these areas.

Sediment deposition may increase immediately upstream of the weir during operation, however this condition should be short in duration as these deposits will be washed downstream during high flow events. The weir is designed to pass water without significantly reducing river flow velocity or decreasing sediment transport capacity.

Waters in the lower Provo River varies in quality on a seasonal basis. During irrigation season, immediately following runoff through October, water quality is generally poor. Return flows from irrigation provides the majority of river's flow and brings with it pollutant. During the non-irrigation season water quality is generally good.

During runoff season and immediately following rain events, the Provo River transports sediment, which is subsequently deposited in low velocity reaches of the river. The weir would be situated in the lower end of a high gradient riverine reach. Therefore, sediment will be deposited immediately downstream of the proposed facility.

No other water quality problems are anticipated.

### **Vegetation**

Riparian areas border the river in the project area. The dominant vegetation is willow. No wetlands occur in the project area.

Willows would have to be removed from both banks of the river to allow construction equipment to access the site. Willow cuttings will be used to revegetate these impacted areas.

### **Fish and Wildlife**

Aquatic species occur in the Provo River, including sport fish, other non-native fish, amphibians, and aquatic insects. In addition, riparian-associated wildlife occurs in vegetation lining the river banks. Biologists have observed native fish species (June and Utah sucker) during spring spawning runs.

Construction of this project will temporarily displace aquatic and riparian fish and wildlife species. The construction activities will occur over a short time frame, less than 30 days, at a non-critical time of year (no spawning occurring), and in a limited reach of river. Therefore the adverse affects of construct will be short lived.

Operation of the weir will preclude carp from migrating up the Provo River benefitting preferred native and sport fish species that occur above the weir. We anticipate little or no negative impact to fish and wildlife from this temporary activity. UDWR Central Region Fishery Biologist Charlie Thompson concurred with this assessment of fishery impacts.

## Endangered Species

Two listed species occur in the project area. The following are the scientific and common names for these endangered species:

| Common Name        | Scientific Name          |
|--------------------|--------------------------|
| June sucker        | <u>Chasmistes liorus</u> |
| Utah valvata snail | <u>Valvata utahensis</u> |

June sucker utilize the Provo River to spawn during spring periods, but otherwise resides in Utah Lake. The reach of river immediately above the weir provides the remaining June sucker spawning habitat; the entire reach of Provo River from Utah Lake to Tanner Diversion Dam is listed as critical habitat for this fish.

The Utah valvata snail historically occurred in the Provo River basin, but has not been sighted recently.

A biological assessment for this activity was forwarded to the Fish and Wildlife Service (Service). The Service's Determination of Effects for this activity is attached (Attachment 3).

## Aesthetics and Safety

A popular hiking and biking path parallels the Provo River and passes within a short distance from the project. This path also provides access to the river for anglers.

Equipment would be operated along the pathway and in the river causing some aesthetic impacts as an access route is cleared through the willows and construction equipment is operated. The weir would be constructed far enough away from the trail that when construction is complete and the weir is operational aesthetic impacts would be minimized.

Recreational floaters have not been observed in the lower Provo River during research periods, however, during summer months when the weir would be operated, river flows are naturally low reducing flow velocity and river depths. At this time the low flows allow easy recognition of the new obstacle and safe portage can be made around the structure. To prevent access to the roof of the fish bypass structure, a chainlink and barbed wire fence will be constructed around the structure.

During weir operation, the weir would be a barrier to any recreational floaters, and no access could be gained to the roof of the fish bypass structure because of the fencing.

### Consultation and Coordination

A. The following agencies were contacted in preparation of this environmental assessment:

- U.S. Fish and Wildlife Service, Salt Lake City, UT
- Utah Division of Wildlife Resources, Salt Lake City and Springville, UT
- Utah State Engineer, Salt Lake City, UT
- Utah County, Provo, UT
- City of Provo, Provo, UT

B. There was no public scoping done for this action.

### Attachments

1. Project Map
2. Utah County: Authorization to Construct on County Land
3. Fish and Wildlife Service: Determination of Effects
4. Utah State Engineer: Permit to Alter a Natural Channel
5. List of Environmental Commitments
6. Distribution List
7. Fish and Wildlife Service Comments on Draft Environmental Assessment.

## Attachment 5. List of Environmental Commitments

1. Establish a Memorandum of Understanding between the Bureau of Reclamation, UDWR, Service, and City of Provo delineating operational protocol, seasonal responsibilities and operational priorities, as discussed in the Service's Determination of Effects (Attachment 3).

2. During June sucker spawning runs, researchers will conform to June Sucker Protocol, as discussed in the Service's Determination of Effects (Attachment 3).

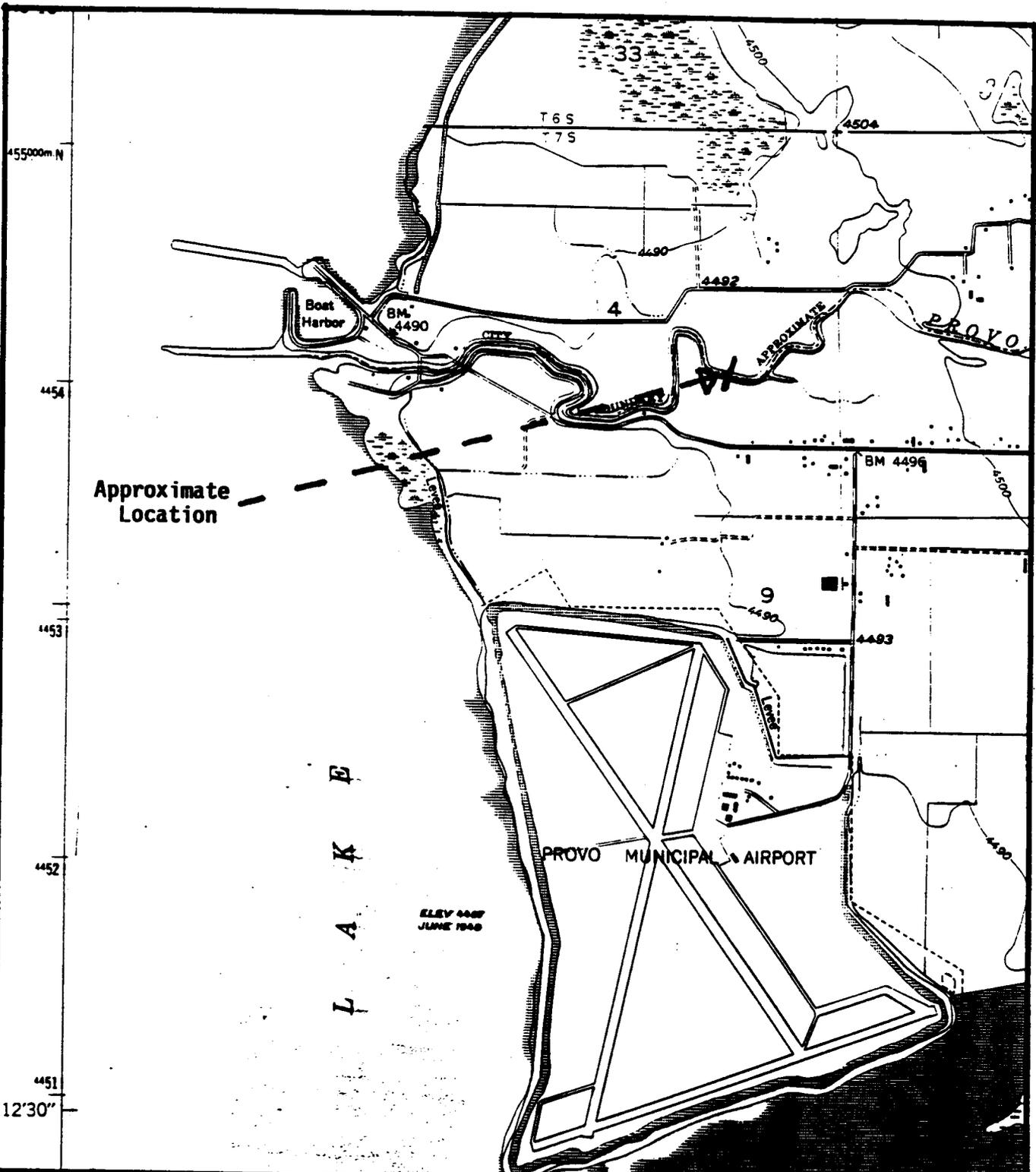
3. Willow cuttings will be used in areas disturbed by construction, as discussed in the Utah State Engineer's Permit (Attachment 4).

4. Sediment will be contained at project site, as stipulated in the Utah State Engineer's Permit (Attachment 4).

5. Wet cement will not be allowed to enter stream flows, as stipulated in the Utah State Engineer's Permit (Attachment 4).

**Attachment 6. Distribution List**

**U.S. Fish and Wildlife Service  
Utah Division of Wildlife Resources  
City of Provo  
Utah County  
U.S. Bureau of Reclamation  
Utah Division of Water Rights**



**Attachment 1: Project Location**  
**Provo River Fish Weir, Utah**

**Applicant: USBR**  
**Section 4, T7S, R2E**  
**Date: September 1, 1993**





United States Department of the Interior  
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE  
2060 ADMINISTRATION BUILDING  
1745 WEST 1700 SOUTH  
SALT LAKE CITY, UTAH 84104-5110

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In Reply Refer To  
(FWE)

October 19, 1993

MEMORANDUM

**TO:** Regional Director, Bureau of Reclamation, Salt Lake City, UT

**FROM:** Assistant Field Supervisor, Fish and Wildlife Enhancement, U.S. Fish and Wildlife Service, Salt Lake City, Utah

**SUBJECT:** Determination on Effects of Construction and Operation of an Endangered Fish Weir, Lower Provo River, Utah

The U.S. Fish and Wildlife Service (Service) received a memo dated September 30, 1993 from the Bureau of Reclamation (Bureau) transmitting a biological assessment for the proposed construction and operation of a permanent fish weir. The Bureau proposes to transfer monies to the City of Provo for the purpose of constructing a June sucker collection weir on the lower Provo River. The Bureau also proposes that the Utah Division of Wildlife Resources (UDWR) and the City of Provo (Provo) jointly operate the facility.

According to the biological assessment, the proposed project would be constructed and operated in the lower Provo River near the confluence with Utah Lake. The weir would be constructed during a non-spawning, low-flow period to avoid impacting June sucker migration, spawning, and larval drift. The weir would be operated by UDWR during the spring spawning migration for the purpose of collecting, marking, and spawning June sucker. The weir would be operated by Provo during the remainder of the year in order to block seasonal migrations of common carp.

After reviewing the biological assessment and the best biological information available, the Service concurs with the determination made by the Bureau on September 30, 1993 of "no affect" on Federally listed threatened or endangered species for construction of the above mentioned project. The Service concludes that the operation of the weir will have a beneficial affect on the species, as long as the following protocol is followed to prevent take of June sucker during the spring migration.

- The weir will be monitored 24 hours a day throughout the June sucker migration. At least two weir monitors will be present at the weir site at all times during migration. Weir monitors will provide security for captured June suckers and the weir during the migration. Weir monitors will check the weir every four (4) hours to

assure that weir is clean and working correctly, and that no fish have become pinned to the upstream side of the weir.

- The Provo River below the weir will be sampled daily beginning May 1 to establish the start of the spawning run.
- Weir monitors will sample for dissolved oxygen levels, temperature, and flow twice daily. A daytime sample and a nighttime sample will be performed. More frequent sampling will be established if the dissolved oxygen drops below 5 ppm.
- Weir monitors will sample for June sucker below the weir between 22:00 and 06:00 during the migration. Monitors will sample at least twice during this time.
- June sucker found below the weir will be collected using established protocol (e.g. spot lights and dip nets). June sucker thus collected will be immediately transferred to either the fish bypass structure or an appropriate holding pen.
- June sucker collected in the Provo River will not be held for more than 72 hours. June sucker may be marked, spawned, and genetic samples taken (using established protocol) before being released above the weir. Weir monitors will check on the captured fish every four (4) hours to assure their health and safety.
- If the dissolved oxygen level in the river drops below 5 ppm, any June sucker being held at the weir will be immediately transferred to an oxygenated and temperature controlled environment (e.g. an oxygenated holding tank).
- Weir monitors will be provided a cellular phone at the weir site. Weir monitors will be required to check in to the appropriate authority at least once a day. Emergencies and unusual occurrences will be reported immediately.

The Service requests that the Bureau take the lead in establishing a Memorandum of Understanding (MOU) between UDWR, Provo, the Service and the Bureau. This MOU would include the protocol presented above for operation of the weir during the June sucker migration. The MOU would also delineate seasonal responsibilities and operation priorities for the facility. The Service requests that this MOU be signed by the above mentioned parties before the June sucker spawning migration in 1994.

If you have any questions, please contact us. The Service representative who will provide technical assistance is Kristi Young, Fish and Wildlife Biologist, 801/975-3630.





State of Utah  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF WATER RIGHTS

October 7, 1993

Michael O. Leavitt  
 Governor  
 Ted Stewart  
 Executive Director  
 Robert L. Morgan  
 Division Director

1636 West North Temple, Suite 220  
 Salt Lake City, UT 84116-3156  
 801-538-7240  
 801-538-7467 (Fax)

Douglas Young  
 Bureau of Reclamation  
 P O Box 11568  
 Salt Lake City UT 84147

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RE: Stream Channel Alteration Permit Number 93-55-50SA for construction of a concrete, steel fish weir and fish holding facility on the Lower Provo.  
 EXPIRATION DATE: October 7, 1994

Gentlemen:

Your application to Alter Natural Stream Number 93-55-50SA is hereby approved pursuant to the requirements of Section 73-3-29 of the Utah Code Annotated, 1953. This approval also constitutes compliance with Section 404 (e) of the Clean Water Act (33 USC 1344) pursuant to General Permit 040 issued to the State of Utah by the U.S. Army Corps of Engineers on October 15, 1987.

Work performed under this permit is subject to the following conditions:

1. The expiration date of this approved application is October 7, 1994. The expiration date may be extended, at the State Engineer's discretion, by submitting a written request outlining the need for the extension and the reasons for the delay in completing the proposed stream alteration.
2. Within 30 days after the completion of this project, the State Engineer's office must be contacted for a compliance inspection. Failure to provide such notification would invalidate U.S. Army Corps of Engineers General Permit 040, thereby placing the applicant in violation of Section 404 of the Clean Water Act.
3. Impacts to the stream channel and surrounding environment must be minimized. Vegetation should not be destroyed, but if some disturbance is necessary, then revegetating with native species will be required, especially replacement of woody shrubs. The channel contours and configuration must not be changed.
4. Wet cement is toxic to aquatic organisms, and its introduction into waters of the United States would constitute a violation of the Clean Water Act. Wet cement or concrete may not be allowed to enter stream flows. Water must be excluded from areas where concrete or cement is used until it has set. Contaminated water pumped from the construction area may not be discharged in a manner to allow it to enter flows. Equipment used during this type of work must be washed well away from the channel.

Page 2  
93-55-50SA  
October 7, 1993

5. Sediment introduced into stream flows during construction must be controlled to prevent increases in turbidity downstream. This can be accomplished either by diverting flows away from the construction area or by constructing sediment control structures.

Arrangements for this compliance may be made through either of the contacts listed below:

Chad Gourley  
Jim Riley

Division of Water Rights/Dam Safety  
Regional Engineer

This Decision is subject to the provisions of Rule R655-6 of the Division of Water Rights and to Sections 63-46b-13 and 73-3-14 of the Utah Code Annotated, 1953 as amended, which provide for filing either a Request for Reconsideration with the State Engineer, or an appeal with the appropriate District Court. A Request for Reconsideration is not a prerequisite for a court appeal. A court appeal must be filed within 30 days after the date of this Decision, or if a Request for Reconsideration has been filed, within 30 days after the date the Request for Reconsideration is denied. A Request for Reconsideration is considered denied when no action is taken 20 days after the Request is filed.

If you have any questions or need further clarification, please feel free to contact Chad Gourley at 538-7375.

Sincerely,



Robert L. Morgan, P.E.  
State Engineer

RLM/crg/sh

pc: Brooks Carter - Corps of Engineers  
Bob Mairley - EPA  
Bob Freeman - U. S. Fish & Wildlife  
Jim Dykman - State History  
Carolyn Wright - State Planning  
Jim Riley - Regional Engineer  
John Fairchild - Regional Wildlife Habitat Manager  
Maureen Wilson - Aquatic Habitat Coordinator

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Utah County  
U.S. Bureau of Reclamation  
Utah Division of Water Rights



**ORIGINAL**

United States Department of the Interior  
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE  
2060 ADMINISTRATION BUILDING  
1745 WEST 1700 SOUTH  
SALT LAKE CITY, UTAH 84104-5110

December 7, 1993

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|  | D. Young                 | 770 |
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MEMORANDUM

TO: Regional Director, Bureau of Reclamation, Upper Colorado Regional Office, Salt Lake City, Utah

ATTN: Doug Young, Biological Support

FROM: *John England*  
Assistant Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Salt Lake City, Utah

SUBJECT: Comments on Draft Environmental Assessment for Provo River Fish Weir

The U.S. Fish and Wildlife Service (Service) received on December 1, 1993 a memo from the Bureau of Reclamation transmitting a draft Environmental Assessment (EA) for construction of an endangered fish weir in the lower Provo River. The weir and adjacent fish holding facility would provide a barrier to upstream fish migration in the lower Provo River. The weir would be operated in the spring during the June sucker spawning migration to capture and study the endangered June sucker. The weir would also be used by the City of Provo to halt upstream carp migrations during the rest of the year. Construction of the weir would temporarily increase sediment in the river. No other environmental impacts are expected due to the construction of this facility.

The Service has no comments on the draft EA at this time. We support the construction and operation of an endangered fish weir in the lower Provo River. We encourage the completion of the weir before the 1994 June sucker spawning season.

Please keep us informed of your progress. If you have any questions, contact Kristi Young, Fish and Wildlife Biologist, 801/975-3630.

*John England*