



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Mountain-Prairie Region

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JUN 16 1997

Memorandum

To: Implementation/Management Committee and Interested Parties

From: Regional Director, Region 6

Subject: Sufficient Progress/Section 7 Consultations--Upper Colorado River Recovery Program

In accordance with the Section 7, Sufficient Progress, and Historic Projects Agreement, the Fish and Wildlife Service recently reviewed accomplishments during 1996 for the Colorado River Recovery Implementation Program. The Program has continued to accomplish significant "on the ground" recovery actions. New and important information was collected in 1996 indicating a possible second spawning area for razorback sucker in the lower Green River and use of the Price River by Colorado squawfish that furthers the recovery of the species. In the area of providing certainty for water development, nearly 400 biological opinions have been issued for water depletions totaling over 220,000 acre feet (list attached).

The Service assessment of "sufficient progress" for 1995 (letter dated April 5, 1996) called for a recommitment to accomplish recovery action items and identified five action items from the Recovery Action Plan that needed to be completed in order for the Section 7 depletion threshold to be increased from 1,500 AF to 3,000 AF. With the recent ruling by the *State of Colorado Water Court* on the change of use application for Steamboat Lake, the Service is pleased to report that all five items have been completed, and the depletion threshold has once again been raised to 3,000 AF. While presently faced with several difficult issues like the consultations on the 15-Mile Reach and Duchesne River, the Service does believe that the Program is making progress towards the recovery of the endangered Colorado River fishes, although perhaps not at the rate we all would like, or as evidenced in the status of several of the species.

In accordance with the Section 7 Agreement, the Service used the following criteria to evaluate whether "sufficient progress" is being made by the Program:

- a. Actions which result in a measurable population response, a measurable improvement in habitat for the fishes, legal protection of flows needed for recovery, or a reduction in the threat of immediate extinction
- b. Status of the fish population

- c. Adequacy of flows
- d. Magnitude of the impact of projects

Status of the Species

No significant changes in the status of the four species have been seen from 1995 to 1996. In the Green River Basin there continues to be strong evidence that operation of Flaming Gorge Dam is contributing to the success of strong year classes of Colorado squawfish. Numbers of young-of-the-year squawfish were high again in the Green River Basin in 1996. Young-of-the-year also were high in 1996 in the Colorado River Basin. The overall capture of adult and subadult squawfish in the Yampa/Green River Basin remained consistent with previous years. For the Colorado River Basin, a slight increase was seen in adult and subadult captured in 1996 compared to 1995. In addition, one Colorado squawfish was collected in the Redlands fish ladder, indicating the successful upstream movement of the species past a historic barrier. Also, the capture of several adult and subadult Colorado squawfish in the Price River in 1996, again highlights one of the more significant finds for the species.

For the razorback sucker, larvae were again consistently captured at several locations below the spawning bar on the Green River, although in lower numbers than in 1994 and 1995. Efforts at Old Charlie Wash produced 45 young-of-the-year. However, the continued lack of recruitment and apparent reduced numbers of adults, as evident in the spring monitoring effort, continues to be of immediate concern and emphasizes the need to move forward with augmenting natural populations. On a positive note, 1,000 razorback sucker were released in the Green River and over 300 in the Gunnison River in 1996. Also, a second potential spawning area for the razorback sucker was discovered in the lower Green River.

To the best of the Service's knowledge, there has been no change in the status of the humpback chub in either the Yampa/Green or Colorado River Basins. Natural occurring bonytail are basically nonexistent in the Upper Basin; however, the Program did initiate the augmentation plan for the species and released approximately 2,000 bonytail in the lower Colorado River near Moab, Utah.

Accomplishments

In addition to past accomplishments identified in our April 5, 1996, memorandum, the following significant recovery actions have been accomplished by Program participants:

1. The Service stocked approximately 1,000 razorback sucker in the Green River and more than 300 in the Gunnison River.
2. The Yampa River Operation and Management Plan was initiated to review alternatives for protecting flows for endangered fish and meeting human needs for water in the Yampa River Basin. Also, a Memorandum of Understanding was signed with the Yampa River Basin Partnership to assure adequate public involvement in this effort.

3. The Bureau of Reclamation operated Flaming Gorge Dam consistent with the Biological Opinion, providing recovery and research flows during spring and summer/fall periods of 1996. Reclamation also operated the Aspinall Units consistent with the operating MOU, providing research flows for the Program.
4. The Program hired a land acquisition coordinator to work with willing landowners to restore floodplain habitat and provide ponds for growing out hatchery-produced endangered fish.
5. Water was delivered from Ruedi and Wolford Mountain reservoirs for the 15-Mile Reach.
6. The Redlands fish ladder was completed and operated in 1996. The facility successfully passed almost 8,000 thousand native fish in 1996, including one Colorado squawfish.
7. The Colorado Division of Wildlife removed nonnative fish from two ponds along the Colorado River in the Grand Valley area consistent with the Nonnative Fish Stocking Procedures.
8. The floodplain restoration and operation project at Walker Wildlife Management Area and 29-5/8 Road Gravel Pit were completed.
9. The Utah Division of Wildlife stocked approximately 2,000 bonytail into the lower Colorado River near Moab.
10. The State of Colorado assisted in reaching agreement on the Orchard Mesa Check settlement with the irrigation company and agreed to fund the operation of the project.
11. The State of Colorado devoted considerable time working on instream flow appropriations (especially on the 581 cfs filing for the 15-Mile Reach). Colorado also secured State construction funds for use in support of the recovery of the endangered fish.
12. The Bureau of Reclamation completed the Coordinated Reservoir Operations study and report in 1996, and held public hearings and implemented coordinated operations in 1997.

These accomplishments indicate the considerable efforts put forward by the participants of the Program. Several of the Program accomplishments, such as the completion and use of the Redlands fish ladder by Colorado squawfish, and the augmentation of razorback sucker and bonytail into the Gunnison and Colorado Rivers respectively, are milestone achievements for the Program.

Concerns

One of the criticisms often voiced by Program participants is that the review for "sufficient progress" is done solely by the Service. While this is true, the agreement in place and the determination of whether sufficient progress is being made is based on whether recovery actions are being completed on schedule. This year, the Service would like to

alert Program participants to recovery actions that it believes will be of critical importance in 1997. This is not a list of all actions to be completed or worked on in 1997, but a list of those items which will have a significant effect on sufficient progress, and which the Service is concerned may not be proceeding on schedule.

1. Levee breaching and acquisition of floodplain habitats or easements--some of this activity is behind schedule. The Service is particularly concerned that the necessary approval be given to breach an adequate number of levees in 1998 to successfully complete the levee removal evaluation.
2. The schedule for filing Colorado instream flow appropriations has been delayed. In addition, there appears to be growing opposition to the water rights that were filed by the Colorado Water Conservation Board in 1995. The Service accepts the revised schedule proposed by Colorado in the recent revision of the RIPRAP, but are concerned about any additional delays.
3. The long-term Ruedi water delivery agreement between the Service, Bureau of Reclamation, and Colorado Water Conservation Board needs to be completed.
4. The Program needs to make significant progress to formalize agreements to protect the initial block of Green Mountain Reservoir surplus water provided as a result of the Orchard Mesa Check settlement.
5. Resolution of issues related to the impacts of releases from Ruedi Reservoir on the Fryingpan River. This issue is currently limiting delivery of water from Ruedi Reservoir.
6. Additional pond reclamation in the Grand Valley and Gunnison River is needed to meet the nonnative fish stocking and control procedures and plan.
7. Completion of the Management Objectives for the species is of critical concern to the Program and appears to have fallen behind schedule.
8. In 1996, the Redlands fish ladder was used by over 8,000 native fish, but only one endangered fish (a Colorado squawfish). Based on these results and budget constraints, Reclamation recommended and the Program accepted delays in the schedule for construction of similar fish ladders. (Construction of a fish ladder at the Grand Valley Irrigation Company diversion was not delayed, since it is a different type of barrier requiring a different type of ladder structure.) Redlands will be operated for a full season in 1997, after which the Service believes the Program should evaluate results and reconsider whether the delays in the schedule for additional fish passage facilities are appropriate.
9. Long-term funding for the Recovery Program (including funds for operation and maintenance of hatchery, fish ladder, etc., facilities) is needed.

Conclusion

The Service has carefully evaluated the following criteria in its annual review to determine the ability of the Recovery Program to serve as a reasonable and prudent alternative for water depletion projects in the Upper Colorado River:

- the status of the fish populations
- the adequacy of flows necessary to recover the endangered species
- the magnitude of depletion impacts that have occurred
- recovery program accomplishments and shortcomings

Based on this evaluation, the Service concluded that the Program has made sufficient progress for projects that have an annual depletion of up to 3,000 AF. The Service has instructed its field offices that the Section 7 depletion threshold has been returned to 3,000 AF. Finally, the Service believes this threshold may be increased in the future with the accomplishment of those activities leading to providing and protecting adequate flows for the endangered fish and begin seeing a response in the status of the species.

I am encouraged with the progress that occurred in the Program in 1996 and efforts accomplished so far this year. I believe if all stay the course and work together, the tasks outlined in the Recovery Action Plan can be accomplish and progress toward recovery will continue.



Attachment

May 1, 1996
 Section 7 Consultations Involving Water Depletions in the Upper Colorado River Basin
 After Initiation of Recovery Implementation Program (January 1988)

<u>Project Name</u>	<u>State</u>	<u>River</u>	<u>Initiation Date</u>	<u>Due Date</u>	<u>Acre Feet of New Depletion</u>
Conoco Buttes-Ouray Gas	UT	White	2/6/92	5/6/92	11.0
James Creek	CO	White	11/23/88	2/23/89	400.0
Jensen-Miller	CO	White	11/18/88	2/18/89	30.0
Muddy Creek	CO	Colorado	1/24/89	3/24/89	7,716.0
Yellow Eagle Mine	CO	Dolores	4/5/91	7/5/91	24.0
Colo Interst Uinta Pipeline	CO	Green	10/3/91	1/3/92	17.0
Somerset Coal Mine	CO	Gunnison	4/17/92	7/17/92	1.0
Trans-Colorado Gas Pipeline	CO	Colorado	3/1/92	6/2/92	13.0
Chapman-Riebold Amend	CO	White	11/5/92	2/5/92	35.0
Devils Canyon	CO	Colorado	1/12/93	4/12/93	15.0
Dowler Pipeline	CO	Colorado	6/16/93	9/16/93	
Rocky Mt. Natural Gas	CO	Colorado	6/24/93	9/24/93	9.0
Wilcoxson Water Supply	CO	Colorado	7/20/93	10/20/93	
Mountain Coal	CO	Gunnison	11/26/93	2/26/94	1.0
Cason Irrigation Pipeline	CO	Colorado	7/20/93	10/20/93	14.0
Hastings Pipeline	CO	Colorado	12/13/93	2/13/94	
JQS Pit Reservoirs	CO	Colorado	1/18/94	4/18/94	2.55
Taylor Grazing Pond	CO	Colorado	1/18/94	4/18/94	1.28
Vasten Homestead Waterfowl	CO	Colorado	1/18/94	4/18/94	6.38
Jolly-Potter	CO	Colorado	2/10/94	5/10/94	
Schenk Water Tank	CO	Colorado	2/25/94	5/25/94	
Greenhorn Stock Pond	CO	Colorado	1/18/94	4/18/94	2.55
North Northwater Spring	CO	Colorado	4/5/94	7/5/94	1.61
Clough-Alber Ponds	CO	Colorado	4/5/94	7/5/94	1.28
New Castle Water Tank	CO	Colorado	4/8/94	7/8/94	
Jolley Irrigation	CO	Colorado	4/13/94	7/13/94	
Programmatic Colo <125	CO	Colorado	5/29/94	8/29/94	1400.0
Jerry Creek/Ute Water/BLM Land Exch.	CO	Colorado	3/20/97		

Rock Creek	UT	Green	11/6/85	4/18/86	120.0
Columbia Gas Development	UT	Colorado	8/8/91	11/8/91	
Hog Canyon Reservoir	UT	Colorado	2/14/92	5/14/92	1.0
Buckhorn Wash	UT	Green	11/6/92	2/6/93	15.0
Aable Trucking Co	UT	Colorado	5/17/93	8/17/93	20.0
Moab District	UT	Colo, Green	2/2/94	5/2/94	531.0
Monument Butte	UT	Green	5/14/94	8/14/94	500.0
Balcron Oil & Gas Development	UT	Green	12/2/94	3/2/95	441.0
Lisbon Valley Copper Project	UT	Green	3/13/96		907.0
Enron Oil & Gas	WY	Green	4/10/89	7/10/89	30.0
Chevron	WY	Green	8/11/89	11/11/89	8.0
Pac. Enterpr. Oil	WY	Green	8/11/89	11/11/89	2.0
Coastal Oil and Gas	WY	Green	11/9/89	2/9/90	4.0
Texaco	WY	Green	11/9/89	2/9/90	8.0
Mobil Oil Drill	WY	Green	5/9/90	8/9/90	8.0
Amoco Moxa Arch	WY	Green	6/11/91	9/11/91	82.0
Big Piney/La Barge Crd Act Pln	WY	Green	6/26/91	9/26/91	0.0
PG&E Fontenelle Gas Infill	WY	Green	6/16/91	9/16/91	61.0
Mobil Tip Top/Hogsback	WY	Green	5/13/94	8/13/94	162.0
Lake City/Blue Mesa	CO	Gunnison	12/13/88	3/15/89	25.0
Paradox Valley Salinity	CO	Dolores	3/29/89	6/29/89	1,448.0
Drought-Related Water Sales	CO	Gunnison	3/13/90	6/13/90	6,000.0
Crested Butte/Blue Mesa	CO	Gunnison	6/3/91	9/3/91	98.0
Paonia Water Sale	CO	Gunnison	8/2/91	11/2/91	800.0
Collbran Project Amendment	CO	Colorado	6/24/92	9/24/92	746.0
Lone Dome Ditch	CO	Dolores	3/4/93	6/4/93	240.0
Grand Valley BLM Stk Ponds	CO	Colorado	9/24/93	12/24/93	21.0
Crawford Reservoir	CO	Gunnison	9/30/93	12/30/93	8.0
Ruedi Rsvr Round 2 Water Sale	CO	Colorado	9/1/94	12/1/94	17,000.0
Paradox Valley Salinity Control Unit	CO	Dolores	12/18/96		516.0
Basalt Water Consv. Water Sale Contr.	CO	Colorado	12/23/96		1000.0
West Divide Consv. Water Sales Contr.	CO	Colorado	12/23/96		200.0

Strawberry Aqueduct CUP	UT	Duchesne			108,000.0
Narrows Amendment	UT	Green	7/7/94	10/9/94	157.0
Church & Dwight Co	WY	Green	12/14/87	3/14/88	1,250.0
Flaming Gorge	WY	Green	1/1/78	6/1/90	0.0
Fontenelle Resv Water Contract	WY	Green	2/22/95	5/22/95	500.0
Price-San Rafael	UT	Green	8/9/88	2/15/90	25,310.0
BR: 2,850					
SCS: 22,460					
Narrows	UT	Green	11/8/91	2/7/92	5,400.0
West Slope Refinery	CO	Colorado	2/8/89	5/8/89	
Frei & Sons	CO	Colorado	4/25/89	7/25/89	388.0
Colo.Div.Wld. Rio Blanco	CO	White	6/26/89	9/26/89	
Steamboat Springs Pipeline	CO	Colorado	3/20/90	6/20/90	27.0
Town of New Castle	CO	Colorado	7/6/90	10/6/90	2.0
Colorado DOW Crystal Hatchery	CO	Colorado	1/24/90	4/24/90	
Bluestone/Roan Creek	CO	Colorado	10/9/90	1/9/91	2,000.0
Everist Gravel	CO	Colorado	3/8/91	6/8/91	4.0
Snowmountain Ranch	CO	Colorado	3/15/91	6/15/91	83.0
Indian Partnership	CO	Yampa	12/4/90	3/4/91	2.0
City of Craig	CO	Yampa	6/23/91	9/23/91	
Colorado Ute Nuc Sta	CO	Dolores	2/11/92	5/11/92	
Indian Meadows	CO	Colorado	4/20/90	7/20/90	139.0
Snowmountain Amend	CO	Colorado	5/15/92	8/15/92	6.0
Eagle Golf Course	CO	Colorado	7/30/92	10/30/92	235.0
Cross Bar Ranch	CO	Gunnison	10/14/92	1/14/93	4.0
Colorado DOT	CO	Colorado	9/9/92	12/9/92	3.0
Hahn's Peak Dam	CO	Yampa	9/16/91	12/16/91	31.0
Flannery Reservoir	CO	Colorado	2/23/93	5/23/93	133.0
Trout Lake Dam	CO	Dolores	2/17/93	5/17/93	
Pat.-Jacobson Ditch	CO	Colorado	3/19/93	6/19/93	
Clifton Diversion	CO	Colorado	2/5/93	5/5/93	
Lake Windemere	CO	Colorado	4/21/93	7/21/93	4.0

Evans/McKenzie Ponds	CO	Eagle	8/20/93	11/20/93	0.39
West Pond	CO	Colorado	12/9/93	3/9/94	0.16
Town of Dolores	CO	Dolores	12/8/93	3/18/94	
Palmer Creek	CO	Colorado	3/2/94	6/2/94	0.94
Carns Pond	CO	Colorado	2/11/94	5/11/94	8.0
Dry Hollow Creek	CO	Colorado	8/4/93	11/4/93	2.3
Town of Granby	CO	Colorado	3/28/94	6/28/94	41.0
Welfelt Wetland	CO	Colorado	3/24/94	6/24/94	4.5
Den Pond	CO	Colorado	3/9/94	6/9/94	0.43
Rivergreen	CO	Gunnison	3/22/94	6/22/94	1.14
Avon Metro	CO	Colorado	3/25/94	6/25/94	1.1
Independence Pond	CO	Colorado	5/3/94	8/3/94	2.15
Miller Creek Ranches	CO	Green	8/27/94	11/27/94	45.62
Pollard Pond	CO	Colorado	4/21/94	7/21/94	3.72
Permit 94-475135	CO	Colorado	6/1/94	9/1/94	0.3
Alpine Land Dev.	CO	Colorado	6/1/94	9/1/94	254.6
City of Steamboat Spgs Glf Crs	CO	Yampa	5/24/95	8/24/95	179.6
Rio Blanco Reservoir #2	CO	White	4/1/95	7/1/95	133.0
Upper Eagle Diversion	CO	Eagle	5/24/95	8/24/95	603.0
Cotton Ranch	CO	Colorado	9/5/95	12/5/95	
City of Glenwood Emerg. H2O Intake	CO	Colorado	8/2/96		
Highline Dam Maintenance Project	CO	Colorado	8/27/96		
Maryland Creek Gravel Mine (Everist)	CO	Colorado	1/23/97		
High Gross Creek	WY	Green	10/9/91	1/9/92	6.0
Fremont Lake	WY	Green	5/15/92	8/15/92	1,000.0
Green River/Rock Springs Water Board	WY	Green	9/9/93	12/9/93	1,547.0
Corral Creek	WY	Green	1/26/94	4/26/94	1.37
Jimmy Creek	WY	Green	1/26/94	4/26/94	8.12
Little Twin Creek	WY	Green	1/27/94	4/27/94	6.6
Killdeer Pond	WY	Green	8/15/96		103.0
Uranium Mill Tailings-Rifle	CO	Colorado	12/1/88	3/1/89	215.0
Uran Mill Tailings-Gunnison	CO	Gunnison	10/1/90	1/1/91	88.0

Uran Mill Tailings-Naturita	CO	Dolores	10/1/90	1/1/91	37.0
Uran Mill Tailings-Grnd Jnctn	CO	Colorado	4/19/91	7/19/91	18.0
Uran Mill Tailings-Slickrock	CO	Dolores	7/29/93	10/29/93	59.0
Naval Oil Shale Res #3	CO	Colorado	5/6/94	8/6/94	4.87
Maybell UMTRA	CO	Colorado	11/15/94	2/15/95	280.0
Lake Catamont Ski	CO	Yampa	12/17/90	3/17/91	24.0
White Banks Alabaster	CO	Colorado	6/16/92	9/16/92	1.0
Wolf Creek Gas Wells	CO	Colorado	8/6/92	11/6/92	3.0
White River Oil & Gas Lease	CO	Colo	11/6/92	2/6/93	1.0
Routt Oil & Gas	CO	Colo, Yampa	11/6/92	2/6/92	62.0
Vidler Tunnel	CO	Colorado	1/21/93	4/21/93	
Smith-Ermele Pipe	CO	Colorado	3/11/93	6/11/93	
Overton to Terrell Ditch	CO	Colorado	1/27/93	4/27/93	
Gilbert Family Trust	CO	Umcompahgre	3/11/93	6/11/93	1.96
7 Natl Forests Small Dep	CO	Colorado	4/21/93	7/21/93	245.0
Fish Creek Reserv Expansion	CO	Yampa	2/23/93	5/23/93	656.0
Aisbury Res. Enlargement	CO	Colorado	5/20/93	8/20/93	133.0
Irwin Water Lines	CO	Gunnison	3/11/93	6/11/93	0.5
Illeman	CO	Gunnison	3/3/94	6/3/94	
Peck Spring	CO	Uncompahgre	5/16/94	8/16/94	
Porter Ditch	CO	Colorado	2/2/94	5/2/94	450.0
Horsefly/Johnson Spring	CO	Colorado	6/30/94	9/30/94	
Snowmass Ski Devel	CO	Colorado	6/11/93	9/11/93	70.0
Telluride Ski Resort	CO		8/10/94	11/10/94	429.0
ChemStar Lime CO	CO	Colorado	5/8/95	8/8/95	
Lapadakis Special Use Permit	CO	Colorado	12/21/94	3/21/95	
Rudolph Irrigation Ditch	CO	Colorado	9/12/95	12/12/95	
Glenn Springs #1 Dom.	CO	Gunnison	9/27/95	12/27/95	
Carbondale Water Trtmt.	CO	Colorado	10/30/95	1/30/96	
Hilkey et. al. spec. use	CO	Colorado	12/1/95	2/1/96	
Yampcolo Resv. enlarge.	CO	Colorado			152.07
Cyprus Coal Drilling	UT	Green	8/1/91	11/1/91	

Cyprus 3 Hole Drilling	UT	Green	10/9/92	1/9/93	1.0
Mountain Coal Exploration	UT	Green	12/1/92	3/1/93	0.6
Manti-LaSal Oil & Gas	UT	Green	11/3/92	2/3/92	67.6
Pacific Corp Coal Expl	UT	Green	8/10/93	11/10/93	
PacifiCorp	UT	Green	5/2/94	8/2/94	1.4
Convulsion Canyon	UT	Green	5/2/94	8/2/94	0.15
Soda Unit Natural Gas	WY	Green	12/13/88	3/15/89	102.0
Bridger/Teton Forest Plan	WY	Green	3/27/89	8/15/89	
Pelican Ponds	WY	Green	8/16/94	11/16/94	174.0
Ouray Fish Hatchery	UT	Green	8/3/92	11/3/92	36.0
Featherdown Wetland	WY	Green	10/15/92	1/15/93	4.0
Small Depletions	REG	Colo, Green			1000.0
Small Depletions	REG	Colo, Green			2000.0
Natural Bridges National Monument	UT	Colorado	7/22/92	10/22/92	1.0
Colowyo Coal Company	CO	Yampa	1/11/88	4/9/88	127.0
Trapper Mine	CO	Colorado	3/25/88	6/25/88	123.0
Apex #2 Mine	CO	Yampa	8/30/88	11/30/88	3.0
Munger Canyon Mine	CO	Colorado	9/12/88	12/12/88	2.0
Munger/McCane Mine	CO	Colorado	3/2/92	6/2/92	4.0
Colowyo Coal Expand	CO	Yampa	1/14/92	4/14/92	3.0
Salt Creek Mine	CO	Colorado	3/5/92	6/5/92	3.5
Sanborn East Tract	CO	Colorado	12/11/92	3/11/93	30.0
Hayden Gulch Loadout	CO	Yampa	3/2/93	6/2/93	56.0
Orchard Valley Mine	CO	Gunnison	3/15/94	6/15/94	37.5
Bear Mine #3	CO	Colorado	3/29/94	6/29/94	15.3
Mt. Coal West Elk	CO	Gunnison	9/16/93	12/16/93	17.1
Foidel Creek Mine	CO	Yampa	4/20/95	7/20/95	165.45
Bowie Mine #2	CO	Gunnison	7/22/96		121.8
Cyprus Plateau's Willow Creek Mine	UT	Price	8/20/96		730.0
Kemmerer Mine Modification	WY	Green	6/11/87	9/11/87	107.0
Black Butte Mine	WY	Green	2/5/88	5/5/88	
Lion Coal Swanson Mine	WY	Green	11/9/93	2/9/93	11.0

Bray Irrigation	CO	Dolores	5/12/94	8/12/94	11.84
Coors Duchesne Oil & Gas	UT	Duchesne	9/19/91		
Ute Pipeline	CO	Colorado	7/1/96		
Aspinall	CO	Gunnison	6/3/05		
Central Utah Project/Duchesne	UT	Duchesne	3/27/97		300,000.0
15-Mile Reach Programmatic	CO	Colorado			
Small Depletions	REG	Colo, Green			3,000.0
Atlas Mill Tailings Reclamation	UT	Colorado	2/12/97		

Depletion charge: Pre FY 1990 - \$10/AF; FY 1990 - \$10.41/AF; FY 1991 - \$10.91/AF;
 FY 1992 - \$11.50/AF; FY 1993 - \$11.98/AF; FY 1994 - \$12.34/AF; FY 1995 - \$12.71/AF;
 FY 1996 - \$13.04/AF; FY 1997 - \$13.41/AF; FY 1998 \$13.81/AF

Footnotes:

- 2 Historic Depletion
- 3 Subject to Flaming Gorge Biological Opinion
- 4 Amount to be determined on project specific basis
- 5 Consultation period extended
- 6 No depletion charge because project has net benefit to fish
- 7 Consultation under Section 7 Agreement
- 8 Payments were collected under individual consultations for Enron, Chevron, Pacific, Coastal, & Mobil

Note: Since 1988, the Service has consulted on 187 projects with a potential to deplete a total of 224,965 af in the Upper Colorado River Basin, of which 47 are historic depleting 28,351 af. Two "projects" are blanket consultations for depletions under 100af, up to 3,000af total. These consultations have covered 204 actual projects depleting a total of 3,391.5 af. The Service is about to issue a third such biological opinion covering an additional 3,000 af.

Operation of Flaming Gorge dam enhances spring peak flows on the Green River by up to 145,787 af each year. Operation of Ruedi Reservoir provides approximately 20,000 af to augment late summer and fall flows in the Colorado River.

SMALL DEPLETIONS (LESS THAN 100 AF)
UNDER JULY 5, 1994 AND MARCH 9, 1995
INTRA SERVICE BIOLOGICAL OPINIONS

Through April 30, 1997

<u>COLORADO</u>	<u>UTAH</u>	<u>WYOMING</u>	<u>TOTAL</u>	<u># OF PROJECTS</u>
2397.305	650.33	343.83	3391.465	204