NORTHWEST BIOLOGICAL CONSULTING

HABITAT RESTORATION - ENVIRONMENTAL PLANNING

Cal. Engineering Contractors Lic. #599428

REWATERING CHANNEL 10 IN THE RUSH CREEK BOTTOMLANDS, MONO COUNTY, CALIFORNIA

1995 Stream Restoration Program

Submitted by:

Scott M. English
Stream Restoration Specialist
Northwest Biological Consulting
P.O. Box 671
Ashland, OR 97520
(541) 488-1061

Directed by:

E. Woody Trihey
Restoration Consultant
Trihey & Associates
4180 Treat Blvd., Suite N
Concord, CA 94518

December 1995

TABLE OF CONTENTS

TABLE OF CONTENTS (Con't)

ACKNOWLEDGEMENTS

Many people and organizations contributed their time and talents to make rewatering of Channel 10 a success. The contributions of the following individuals are greatly appreciated.

TECHNICAL ADVISORY COMMITTEE

Jim Canaday, California Regional Water Quality Control Board
Christopher Hunter
Ilene Mandelbaum, Mono Lake Committee
Brett Matzke, California Trout
Lucy McKee, U.S. Forest Service
William Platts, L.A. Department of Water & Power
Richard Ridenhour
Jill Shirley, National Audubon Society
Gary Smith, California Department of Fish & Game
William Trush
Mike Verzatt, Facilitator, El Dorado County Superior Court
Bill Hasencamp, L.A. Department of Water & Power

PLANNING TEAM

Reg Cullen, Trihey & Associates
Scott English, Northwest Biological Consulting
Mitchell Katzell
Steve Koskella
Eric Larsen
Scott Stine
Tom Taylor, Trihey & Associates
Woody Trihey, Trihey & Associates
Peter Vorster

ACKNOWLEDGEMENTS

ON SITE WORK

Channel 10 Entrance Design:	Scott English Reg Cullen
Construction Inspection & Supervision:	Scott English Steve Koskella
LADWP Equipment Crews:	Richard Williams, Supervisor
Photo Documentation:	Linda Chesney
Video Documentation:	Steve Koskella
Final Project Inspection	Woody Trihey

INTRODUCTION:

The primary purpose of this "as-built" construction report is to summarize the stream restoration/rewatering work associated with the channel 10 complex in the Rush Creek bottomlands (Reach 4B). The channel rewatering work was approved by the Technical Advisory Group (TAG) in September, 1995. In general, the TAG approved restoration work consisted of design criteria outlined in a September 6 memorandum from Scott English to Richard Ridenhour, Chris Hunter and Bill Trush. (See Appendix 1). Also, a September 13th memorandum from Richard Ridenhour to Scott English provided additional guidance for the Channel 10 work. In addition, a September 19 letter of authorization from Woody Trihey gave the final approval to proceed with the work (See Appendix 2).

The construction work began on September 25th and ended on October 12th (14 work days). The Channel 10 work concentrated on removing the large gravel/debris "plug" which blocked the first 450 lineal feet of the 2000 foot channel. The remaining 1550 feet of channel was left totally undisturbed and the historical channel was simply rewatered after removing the upstream "plug". Please refer to the project location map, Figure 1, and Aerial Photograph 1 for orientation.

CONSTRUCTION SEQUENCE:

The following is a general outline of the construction sequence which was followed to implement the Channel 10 rewatering. Please refer to Appendix 1 for more specific design information.

1. Final on-site review with LADWP construction supervisors and Stream Restoration Specialist.

2. Mobilization of crews, equipment and materials.

3. Final staking and project layout.

4. Review of project on-site with all Construction Personnel.

5. Installation of precautionary measures (oil booms, etc.)

6. Photographs were taken of the project from established photo points

7. One access route at the upstream end of the project was utilized which was the "least impact route".

8. The initial Channel 10 entrance and upper channel planform was cleared brush which consisted primarily of Wildrose, Sagebrush, rabbitbrush and dead willows.

9. A one acre area adjacent to the upper channel was cleared of brush and graded to receive the excavated sediment materials from the channel work.

10. The channel planform (e.g. Point bars, channel banks, etc.) was roughed in for approximately 450 feet and the excavated plug materials were deposited and graded into the adjacent spoils site.

11. Six groundwater monitoring wells were installed along two transect lines which crossed the interfluve area between Channel 10 and the main channel of Rush Creek. Refer to aerial photograph 1 for their locations.

12. The channel entrance was breached, the stream rewatered and work on the channel entrance, overflow side channel and point bars was completed. Refer to the following "Before & After" photographs for overviews of the construction work.

13. Approximately 40 CFS (2/3 of incoming flow) occupied Channel 10 and 20 CFS (1/3 of flow input) discharged into the overflow (side) channel. Please refer to Figures 2-8 for cross sections and profiles of Channel 10 and the overflow channel.

14. The overall gradient of the excavated channel was approximately ½ percent. The bed topography was fairly uniform and matched existing channel topography. (See Figures 2-8)

15. The existing large woody debris, including the old beaver dams and the grasses and sedges were left undisturbed.

16. Final grading of the channel, entrance bar and adjacent spoils area was completed. Brush and native seeds (sagebrush, rabbitbrush, etc.) were scattered over the spoils site.

17. The equipment access route was graded and all the oil containment equipment removed from the creek. All the equipment was removed from the site.

18. Final photographs and "as-built" cross-sections and profiles were completed for the project.

PERMITS/WAIVERS:

Permits and/or waivers were required by the Lahontan Regional Water Quality Board and the Army Corp's of Engineers. In general the permit conditions from the above agencies required a variety of precautionary measures be followed to avoid adversely affecting water quality. Copies of permits/waivers for the Channel 10 work are provided in Appendix 3. All the waiver conditions were complied with.

PROCEDURES FOR RESTORATION TREATMENT:

Stream restoration guidelines adopted by the RTC in August, 1993, for on-the-ground treatment were applied during the Channel 10 work. These guidelines included:

1) Light-handed restoration techniques are to be used at all times;
2) Hand crews shall be given emphasis over mechanical equipment where feasible;
3) Work shall seek a self-cleaning, self-functioning nature; and
4) Materials shall be native to the basin.

In keeping with the above guidelines and the permit/waiver considerations the following construction procedures were followed:

1) Hand labor crews completed as much of the work as was feasible
2) Equipment crews were only utilized where the amount of work was beyond the capabilities of the hand labor crews.
3) Wetland areas were avoided and not impacted by the work.
4) The equipment access area was limited to entry/exit points along Rush Creek to minimize impact to the aquatic system.
5) Native cobble material from the excavation work was utilized to provide streambed material where it was needed on Channel 10.
6) Excess sediments removed from the reconstructed channel were utilized in other parts of the Channel or were disposed of in adjacent upland depressions which were barren cobble areas and/or upland scrub vegetation.
7) Channel 10 was reconstructed (e.g., point bars, stream banks, streambed topography, etc.) so that the stream will be self-maintaining.
8) Work on the channel progressed from the upstream to downstream to minimize overall impacts.
9) Precautionary measures (e.g., oil containment booms/pads, straw bales and frequent equipment inspections) were implemented throughout the length of the project.

EQUIPMENT, MATERIALS, LABOR & SUPERVISION:

The Equipment utilized on Channel 10 work included:

- One Cat. 977 Tracked Front-end Loader
- One John Deer 310 Backhoe with 24" Bucket
- One Contractor Pump with 1 ½" hose
- 8mm Video Camcorder and 35mm Camera
- Misc. Hand Labor Tools (rakes, digging bars, shovels, etc.)

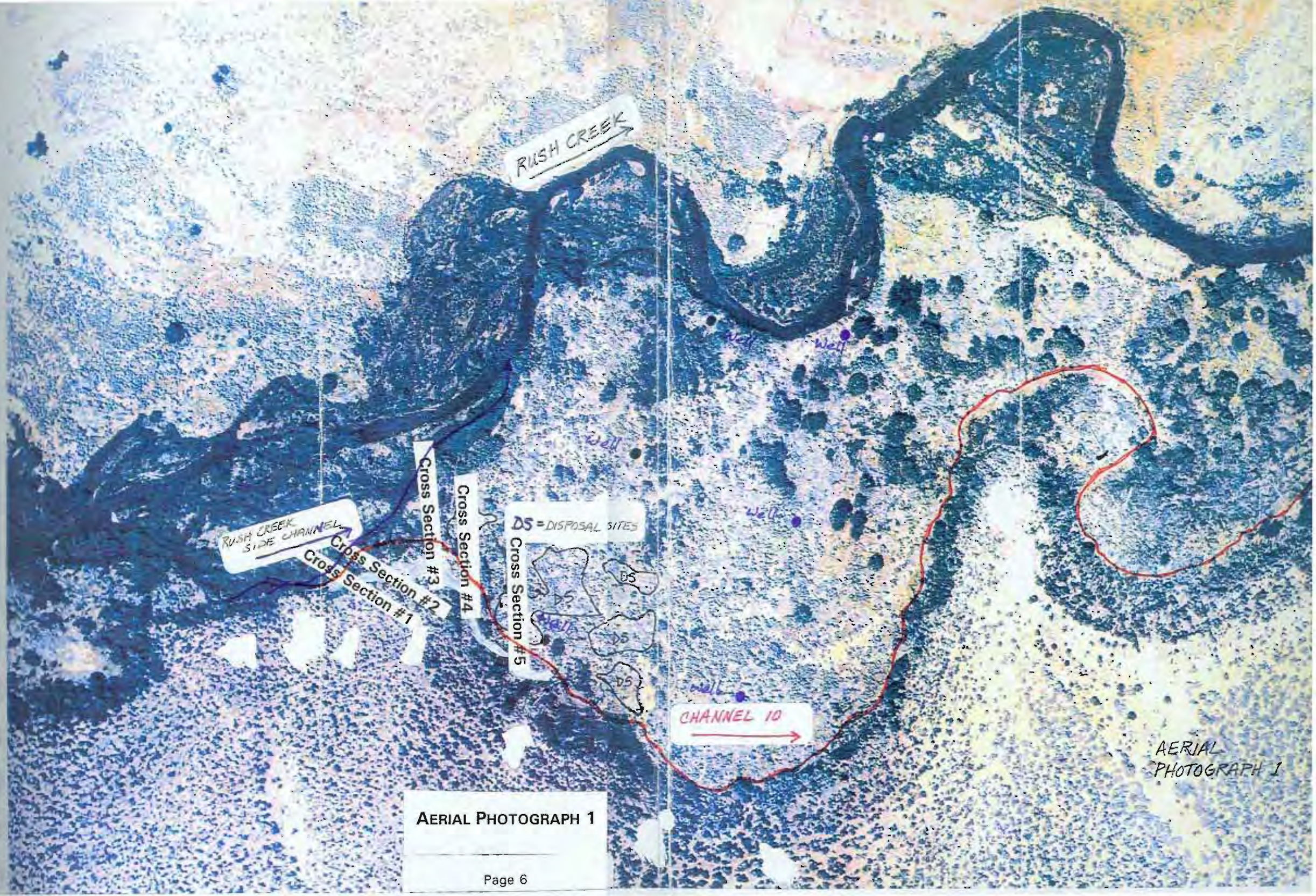
The Material utilized in the reconstruction and rewatering of Channel 10 included the following:

- Oil Containment Booms and Oil Absorbent Pads for emergency use
- Six 10' (length) x 6" (diameter) PVC Pipe with Caps for the six ground water monitoring wells
- Twelve Straw Bales and Ten 5' lengths of ½ inch rebar for use in constructing two temporary sediment control stations
- Twelve Sacks of Redi-mix which were utilized to seal the six monitoring wells

The Labor required to complete the Channel 10 work consisted of:

- One DWP Backhoe Operator
- One DWP Tracked Loader Operator
- Two DWP MCH Laborers
- Equipment Maintenance/Fueling every 2-3 working days by DWP Crew

Supervision of the On-Site A-4 Channel work was provided at all times by the Stream Restoration Specialist (Scott English) and his Part-time Assistant (Steve Koskella). A DWP Supervisor (Richard Williams) was in the vicinity during most of the channel work. The RTC Consultant (Woody Trihey) inspected the work and minor channel modifications were carried out in response to his final inspection.



AERIAL PHOTOGRAPH 1

Figure 1: Location of Rush Creek Pilot Project to Rewater Portions of Channel 10.

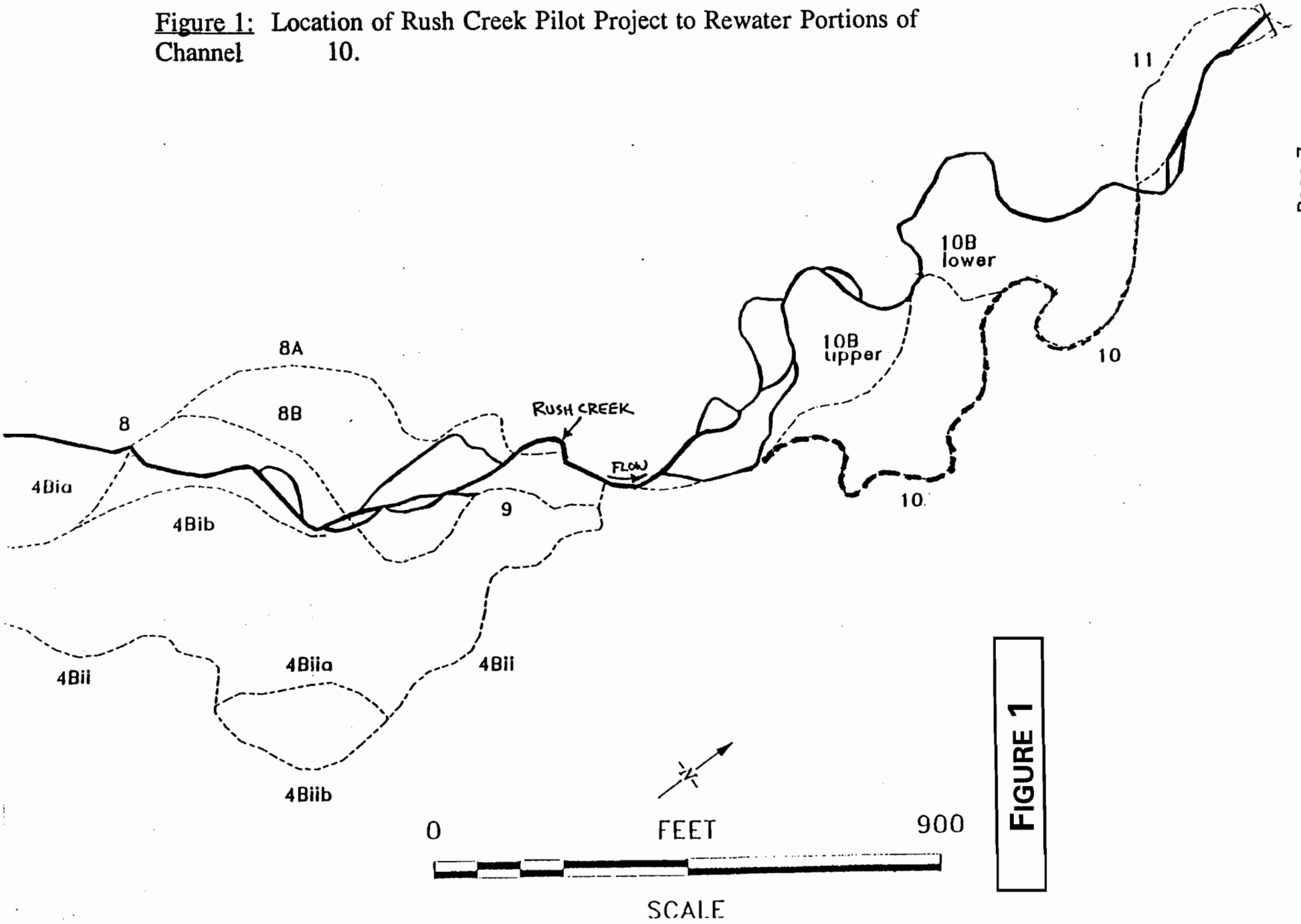
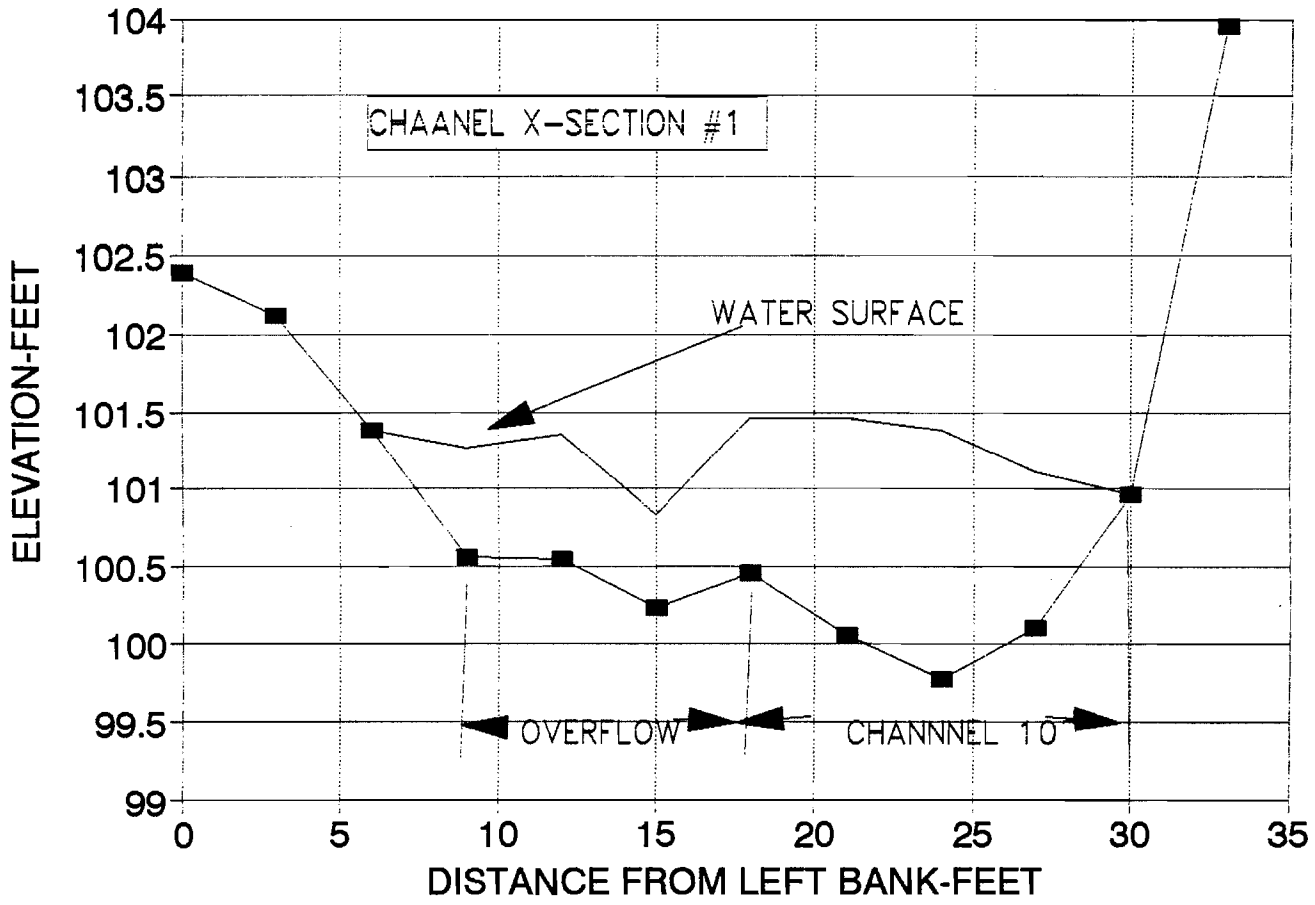


FIGURE 1

RUSH CR. CHANNEL 10



11/15/95 W.C.G. BYPASS CHANNEL X-SECTION #FILE XSECCW1.WQ1

FIGURE 2

RUSH CR.CHANNEL 10

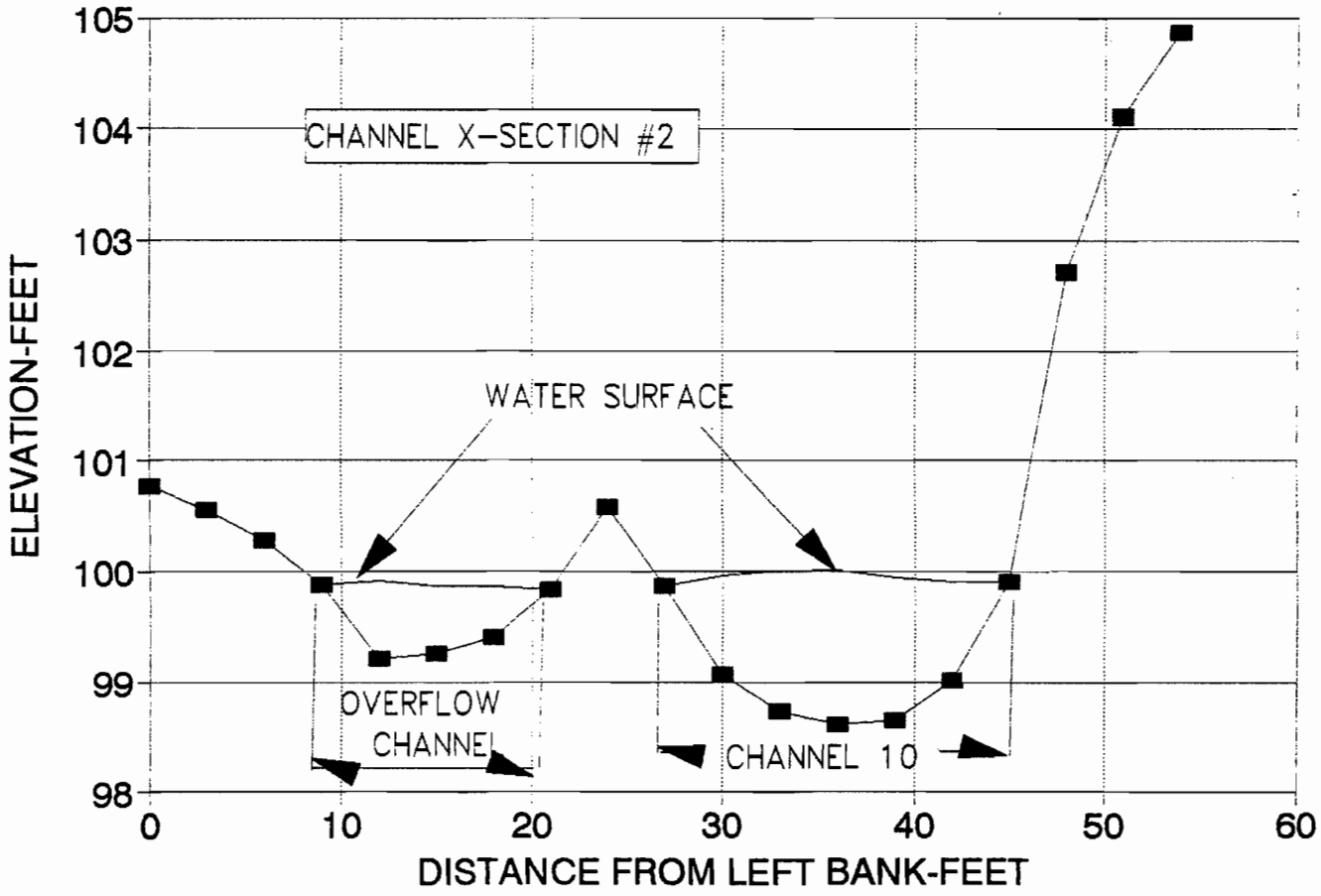


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FIGURE 3

RUSH CR. CHANNEL 10

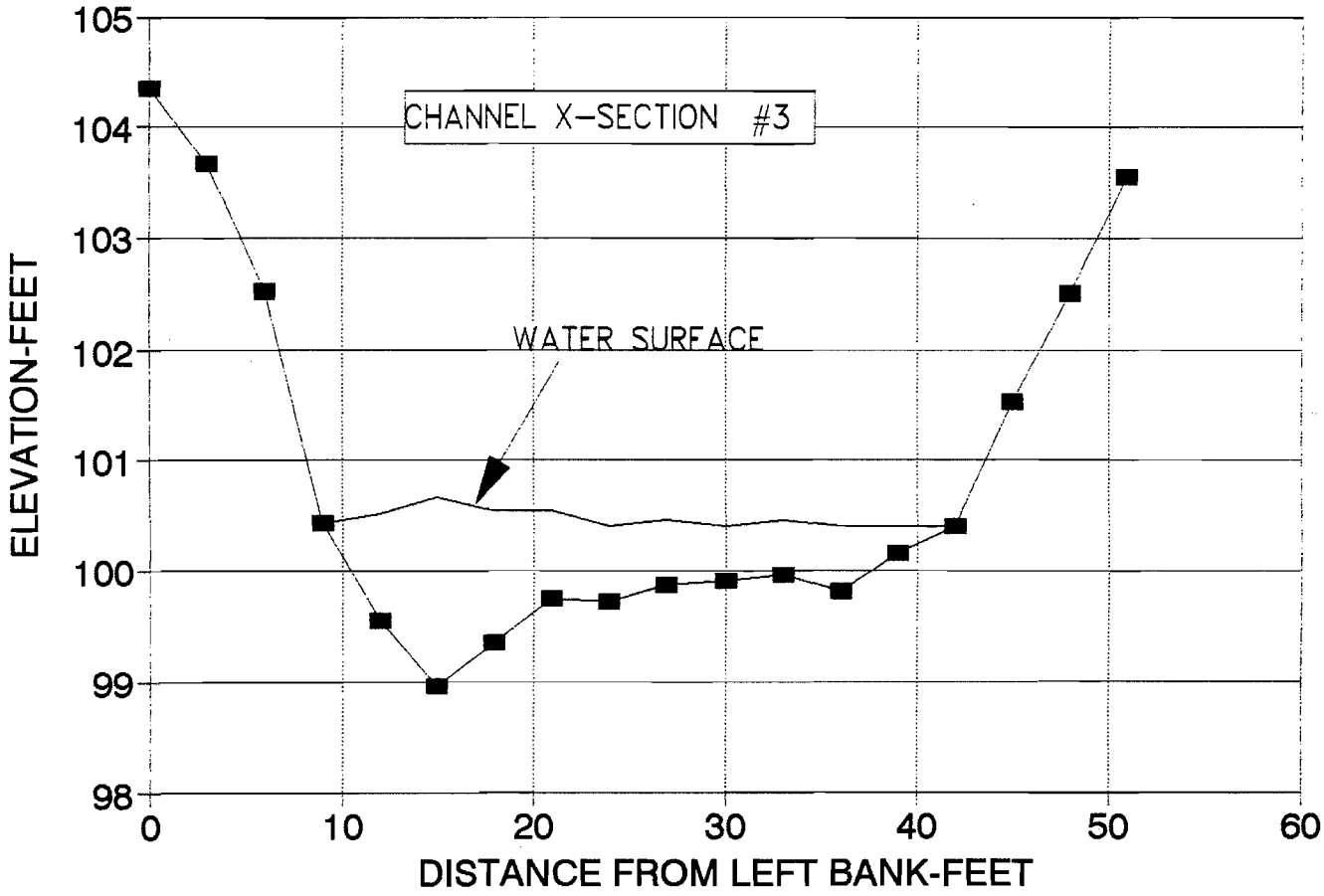

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FIGURE 4

RUSH CR. CHANNEL 10

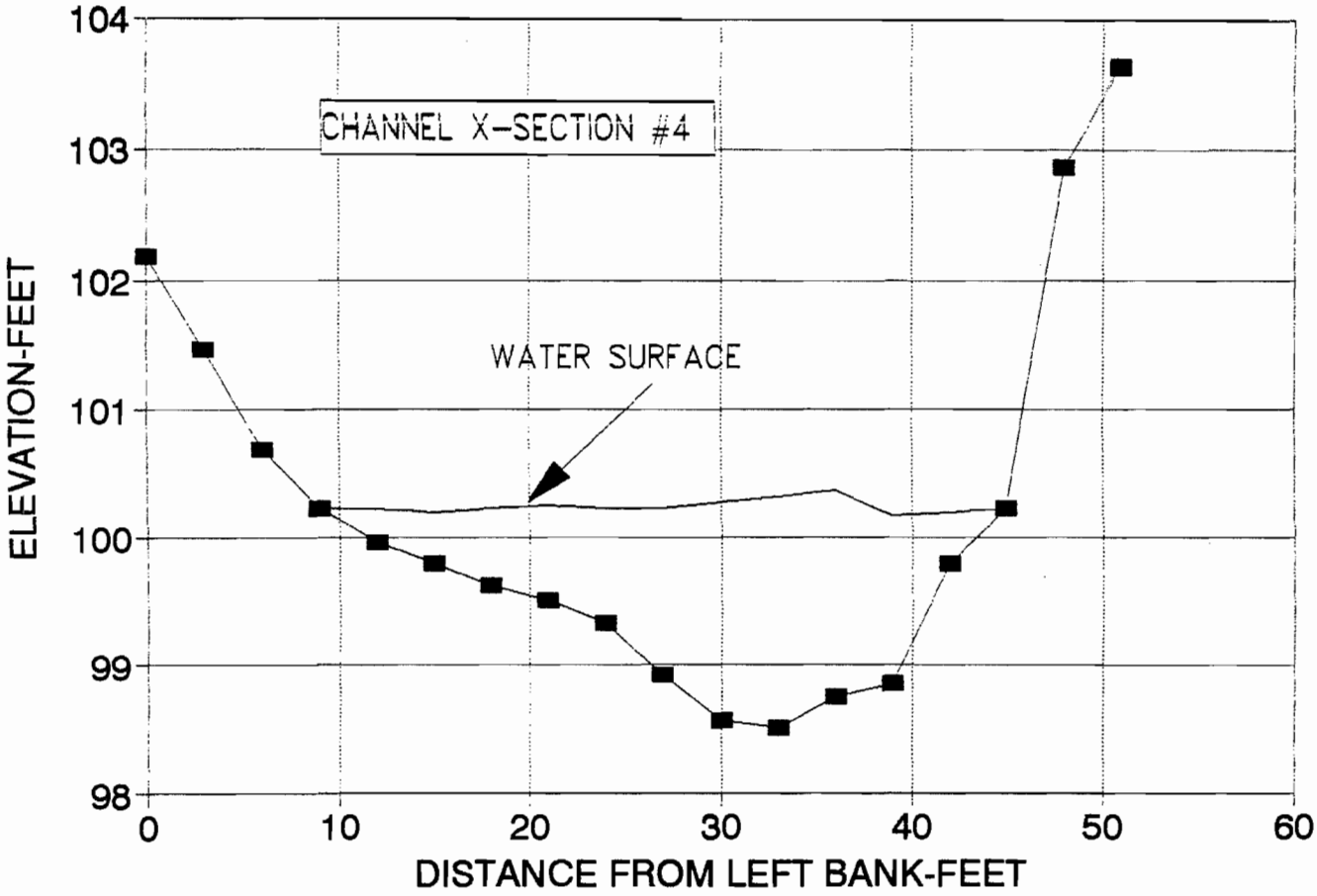

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FIGURE 5

RUSH CR. CHANNEL 10

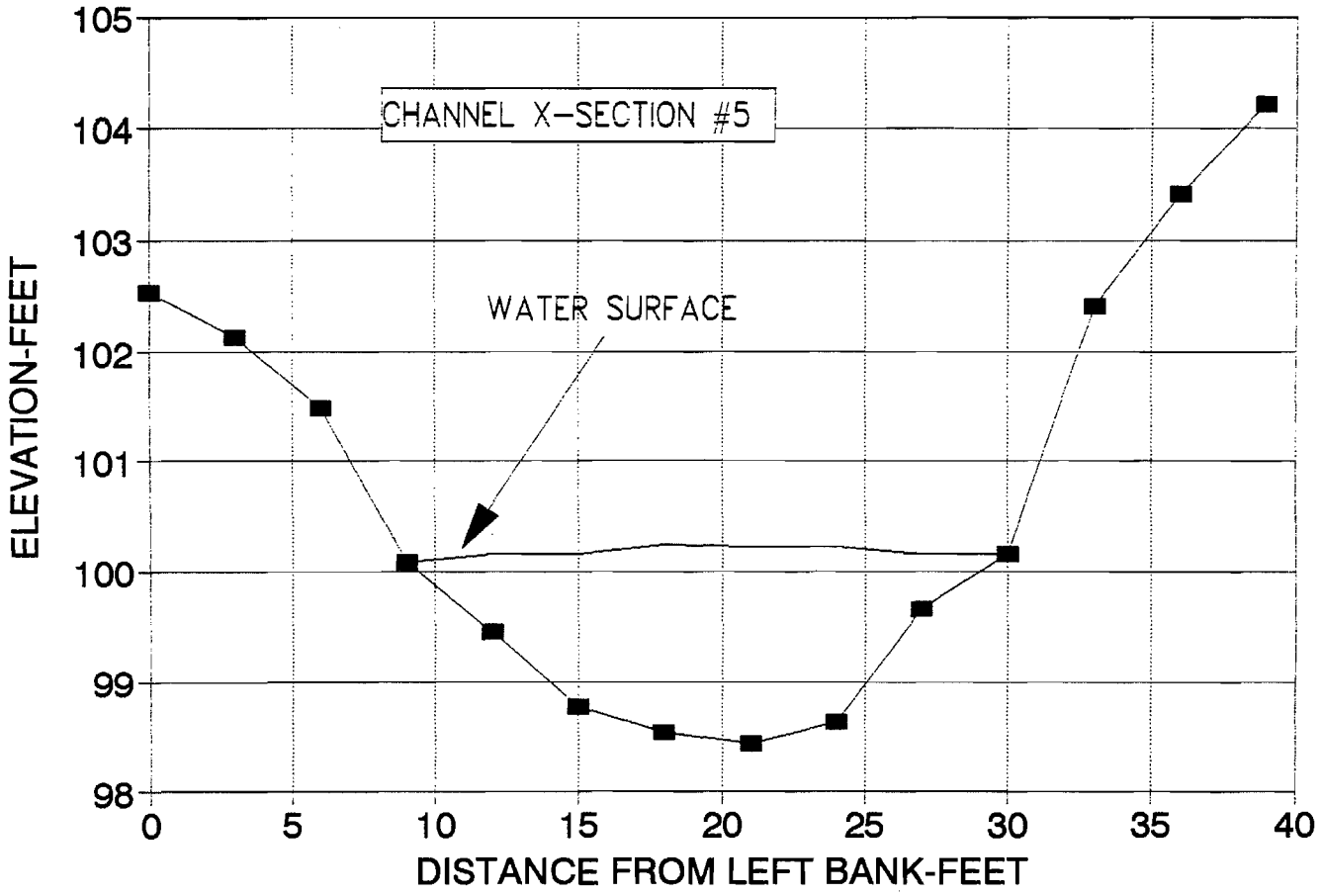

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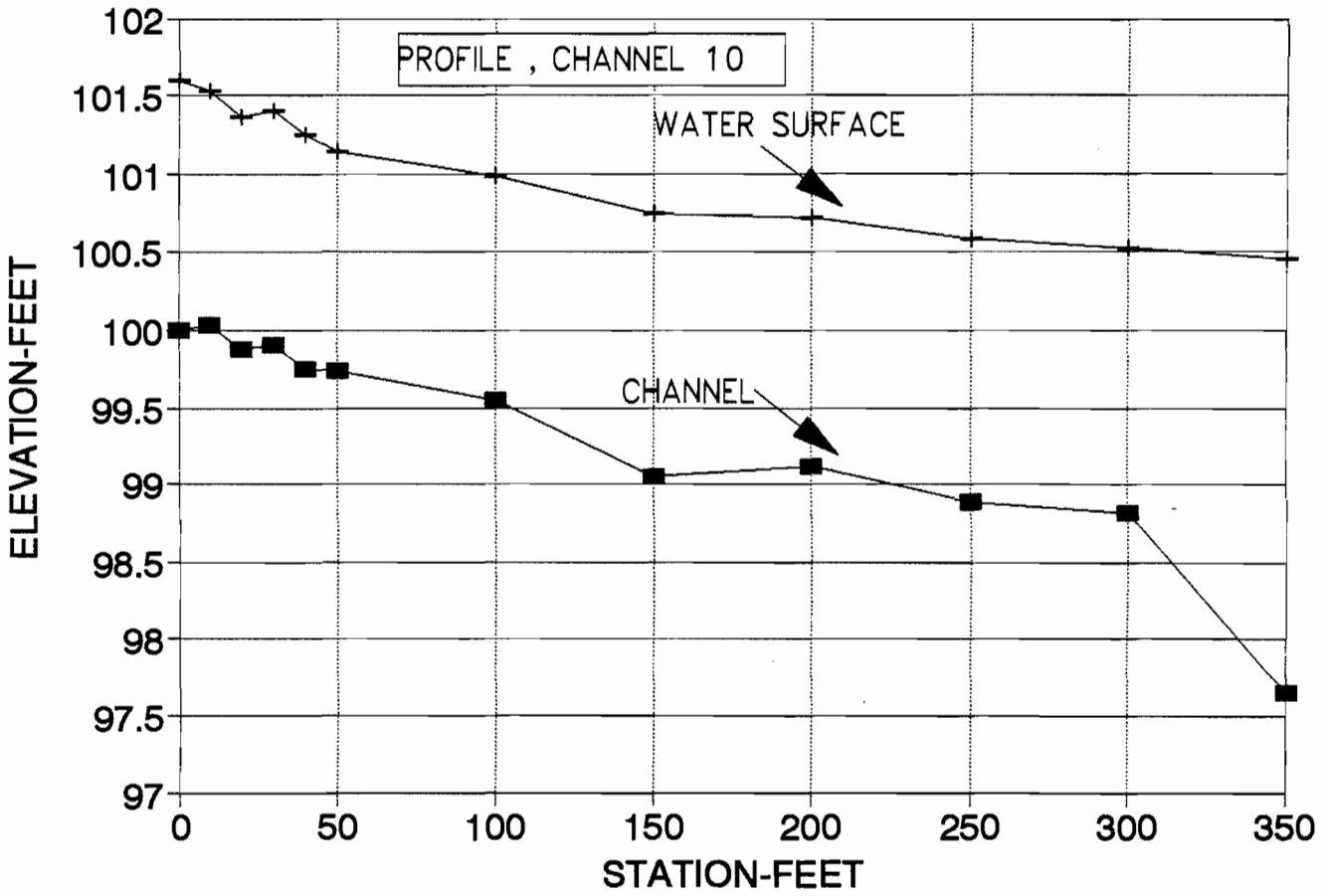
FIGURE 6

RUSH CR. CHANNEL 10

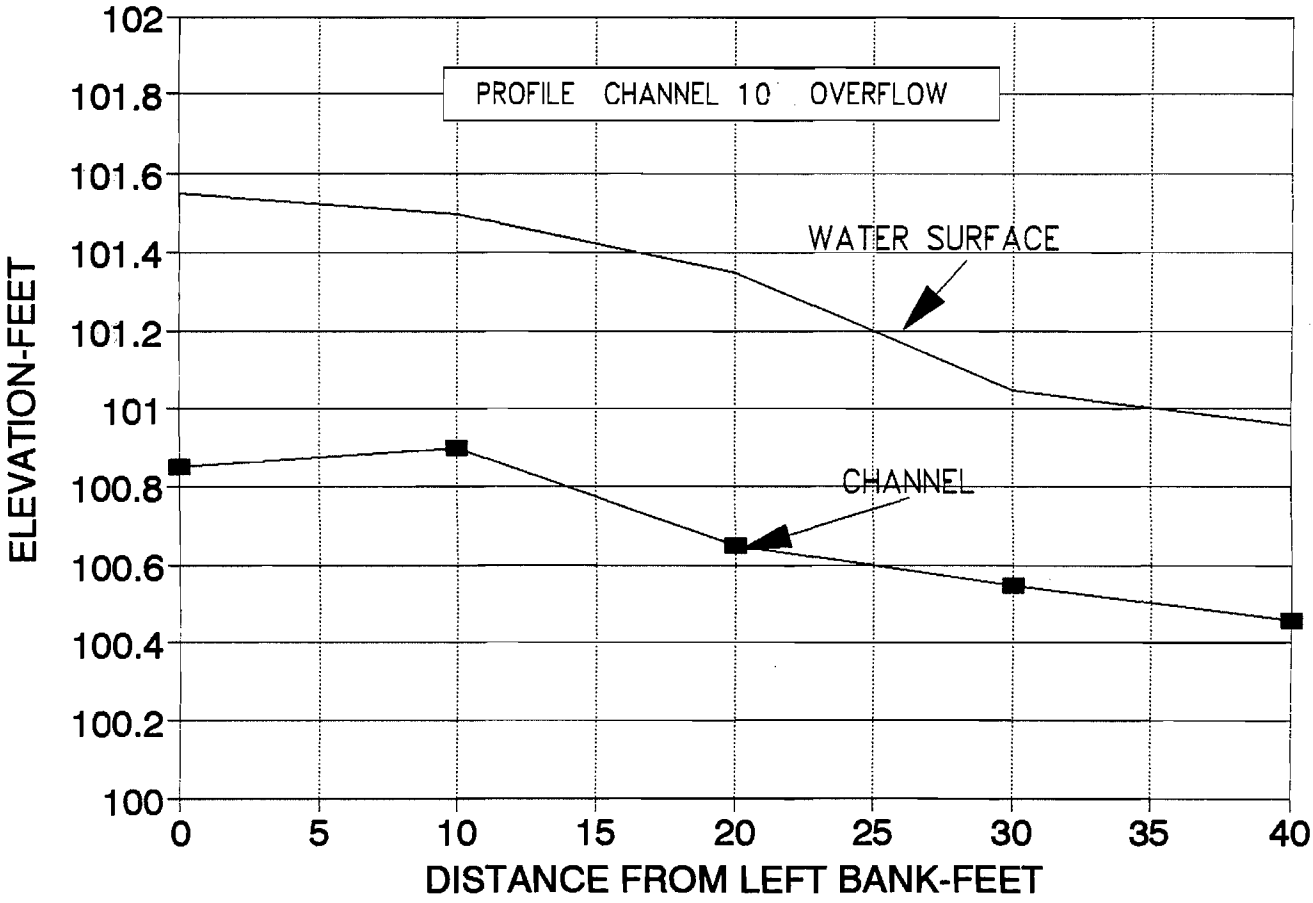


11/17/95 W.C.G. PROFILE BYPASS CHANNEL

FILE PROFILEB.WQ1

FIGURE 7

RUSH CR.CHANNEL 10 OVERFLOW

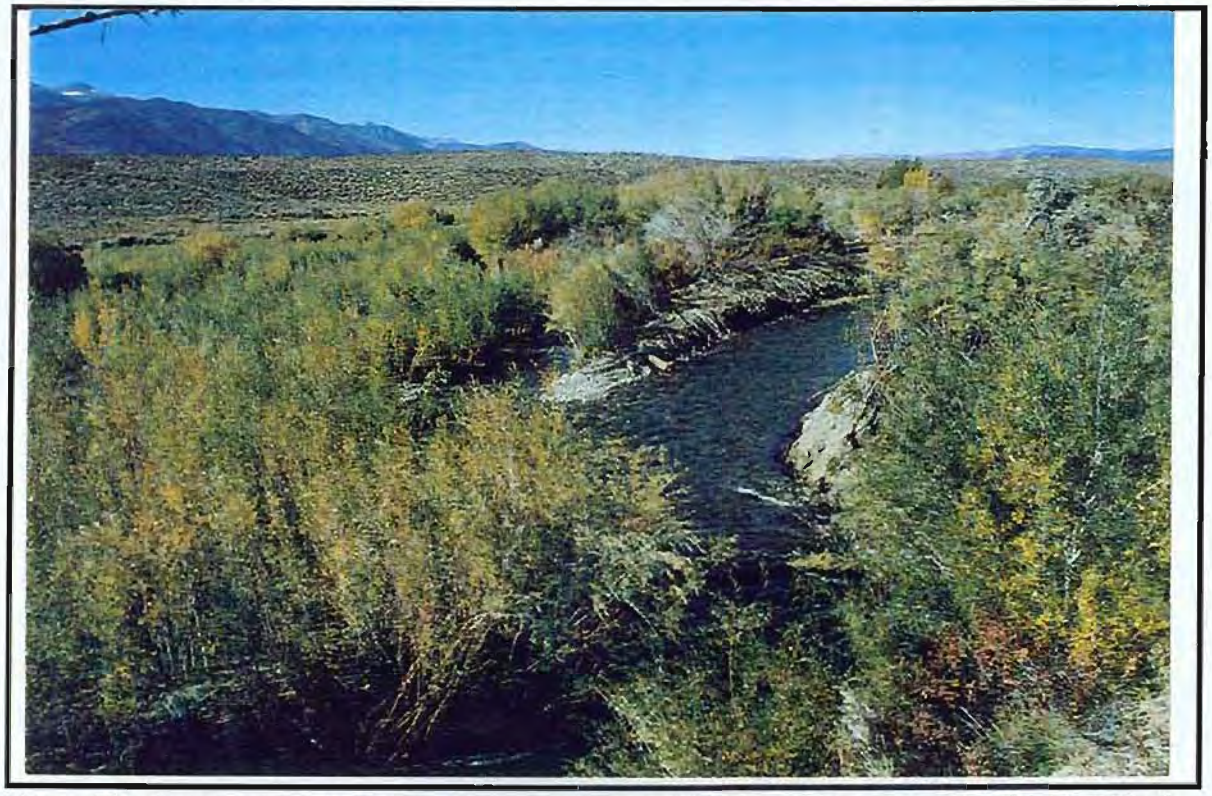


11/18/95 W.C.G. PROFILE OVERFLOW CHANNEL FILE PROFILES.WQ1

FIGURE 8

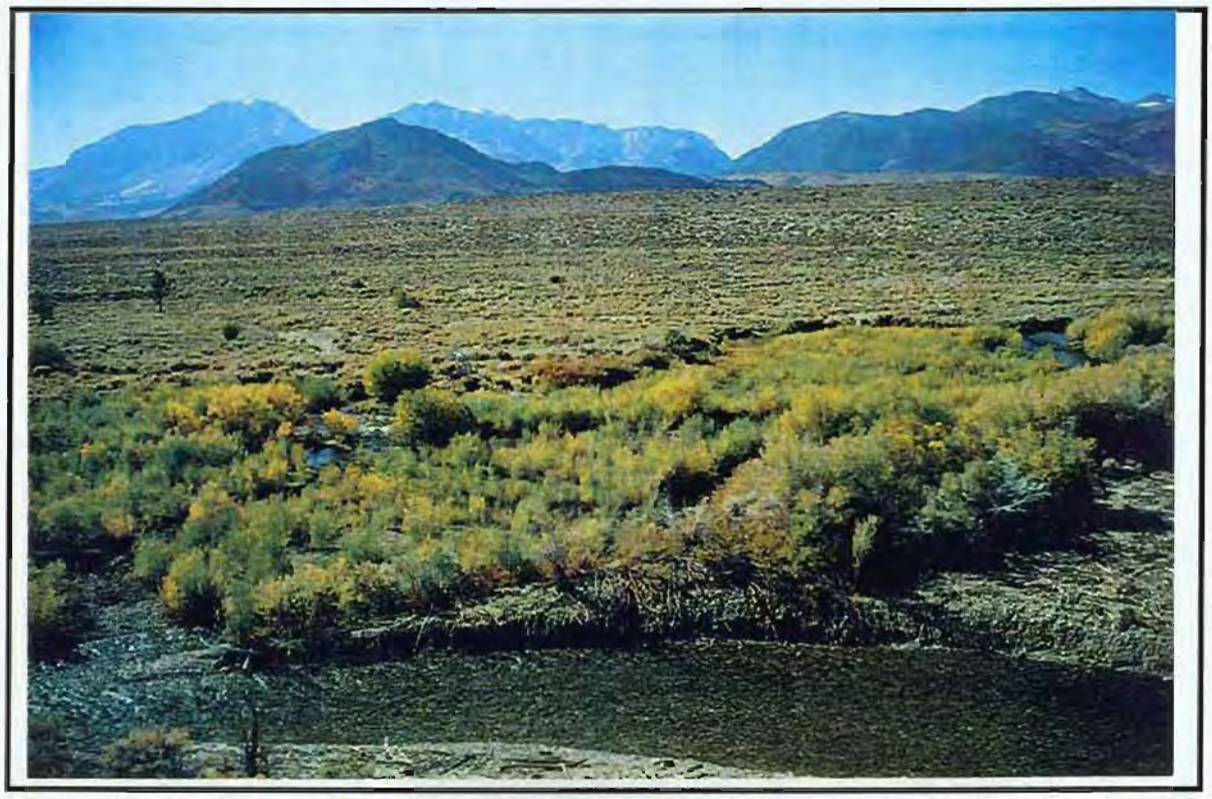
BEFORE AND AFTER PHOTOGRAPHS OF THE CHANNEL 10 REWATERING FROM PHOTO POINTS 1 - 9

PP1a **Before:** Upstream end of project before large gravel & debris plug was removed from the initial 450 ft. of the historical Channel 10. The existing side channel of Rush Creek has an estimated discharge of 60 CFS.

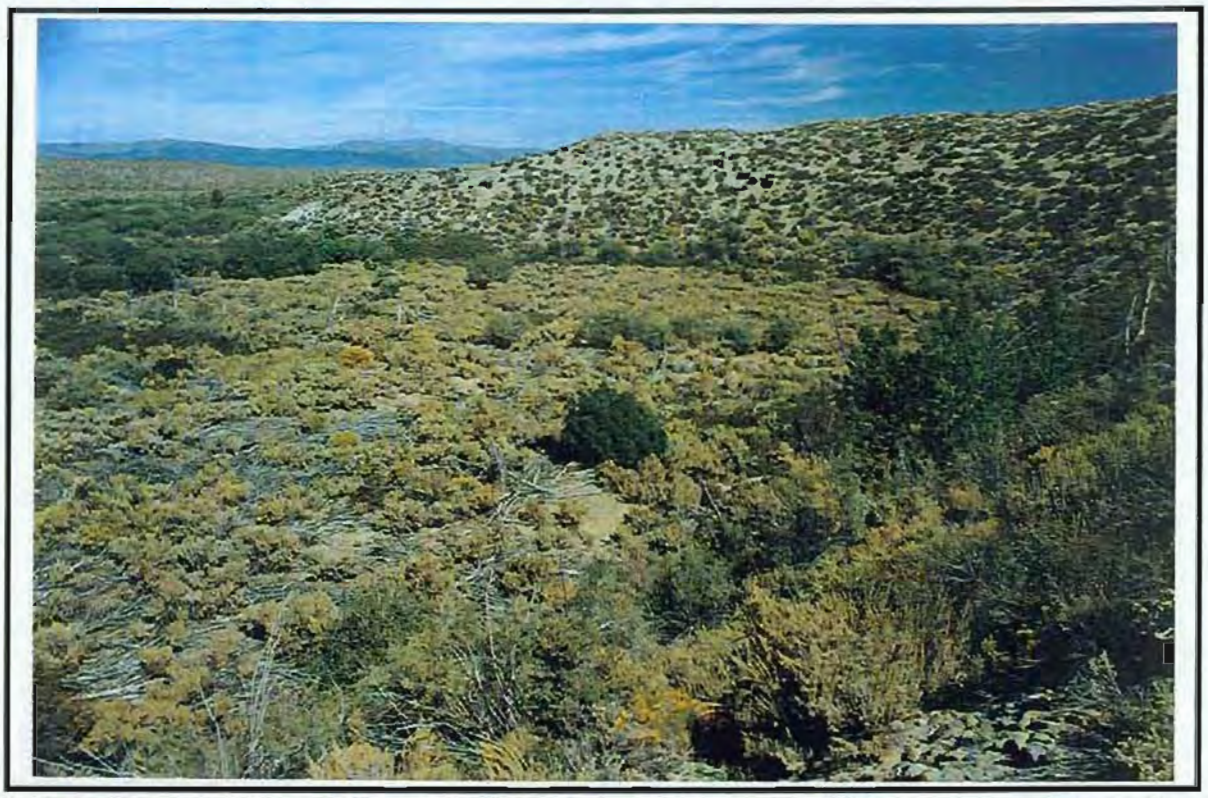


After: The large gravel & debris plug was removed from the entrance to the historical Channel 10. A point bar & cross-over bars were constructed to control the flows between the existing side (overflow) channel (left) and Channel 10 (right). The overflow side channel has ~20 CFS & Channel 10 contains ~40 CFS.

PP2 **Before:** Entrance to historical Channel 10 before removal of large gravel/debris plug. The Channel 10 entrance was designed to split off from the large existing side channel of Rush Creek.



After: The existing overflow channel (left) was designed to contain ~1/3 of the flow of the upstream side channel (~20 CFS) and Channel 10 (right) was configured to hold ~2/3 of the existing side channel discharge (~40 CFS). The point bar and Channel 10 cross-sections/profiles were designed to allow Channel 10 to function as the dominant channel.

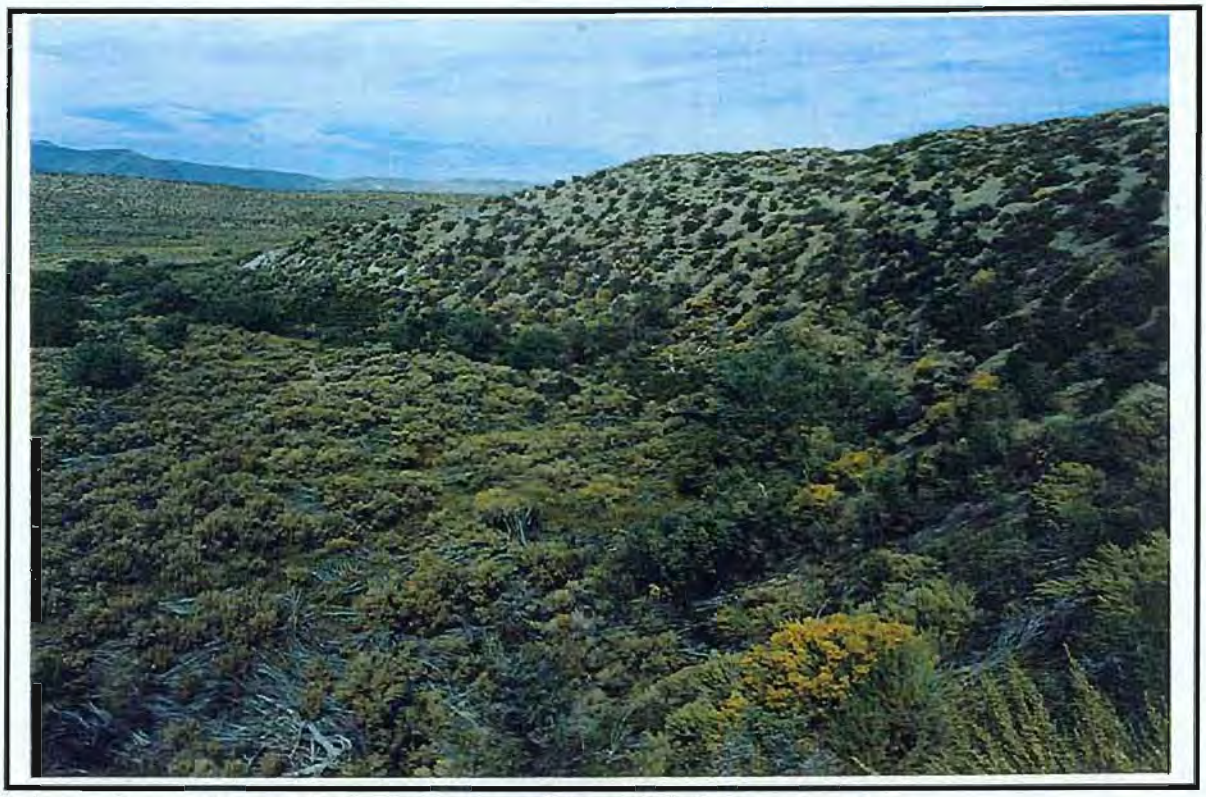


PP3 **Before:** Upper section of Channel 10 depicting the gravel/debris plug before excavation and rewatering.

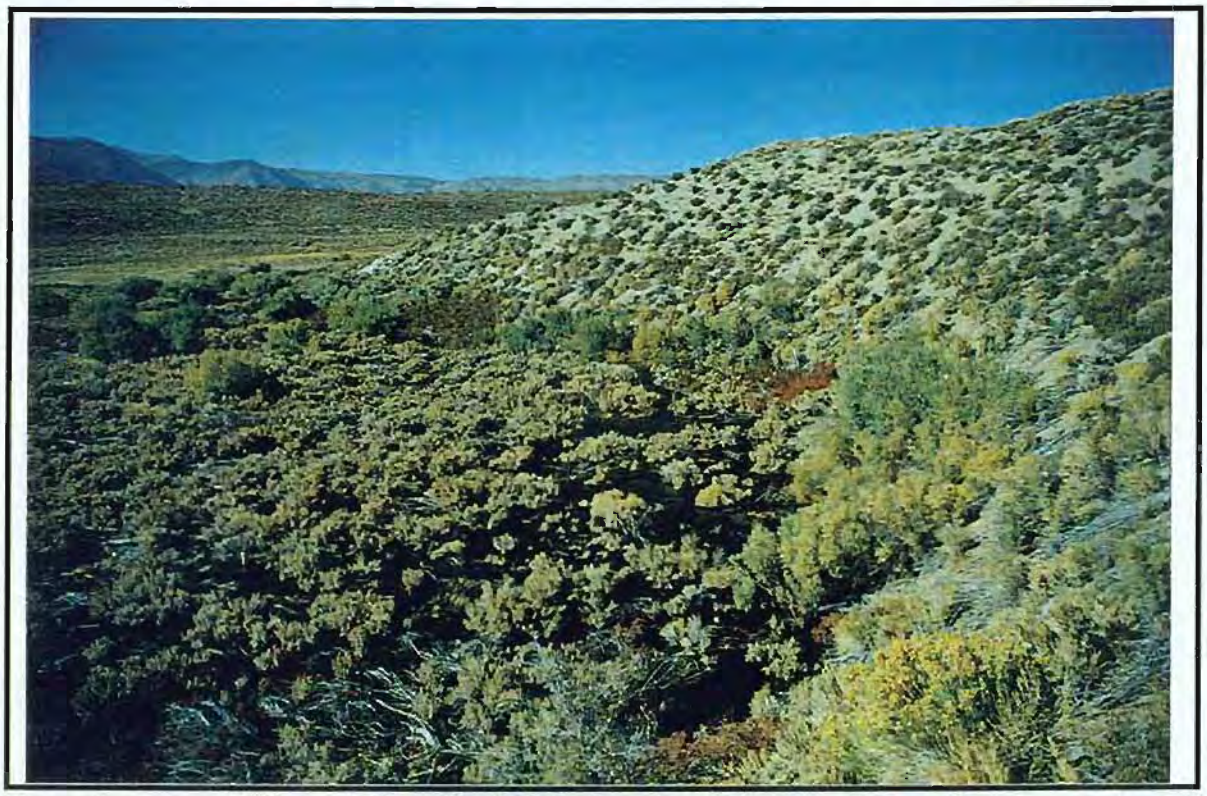
After: The upper section of Channel 10 after the sediment plug was removed and the channel rewatered with ~40 CFS. One of six pzeiometers is located next to the willow, along the left bank of Channel 10.

PP4 **Before:** Upstream view overlooking sediment/debris plug of Channel 10. Approximately 3 to 6 feet of plug materials were excavated & removed from ~450 lineal feet of upper stream channel. Sagebrush and rabbitbrush vegetation was growing over much of the historical channel and adjacent areas.

After: View looking upstream along the toe of the valley wall depicting the ~450 ft of constructed Channel 10. ~1500 yds³ of plug sediments/debris were removed and placed on the adjacent area which impacted ~1 acre of upland sagebrush and rabbitbrush vegetation. The impacted area was seeded with the same native uplandl vegetation. Existing willows were mostly left in tact. Brush was scattered over the area to hold the seeds in place and reduce wind erosion on the site.



PP5 **Before:** Downstream View along the valley wall before rewatering.



After: Rewatered Channel 10 with ~40 CFS. Flow follows valley wall and spreads out into upland vegetation. There were no alterations to the channel other than opening up the upstream debris plug. The water has spread into a wide lowland area and will provide wetland habitat in time.

PP7 **Before:** The photograph depicts the dewatered historical channel as it bends around the toe of the slope.

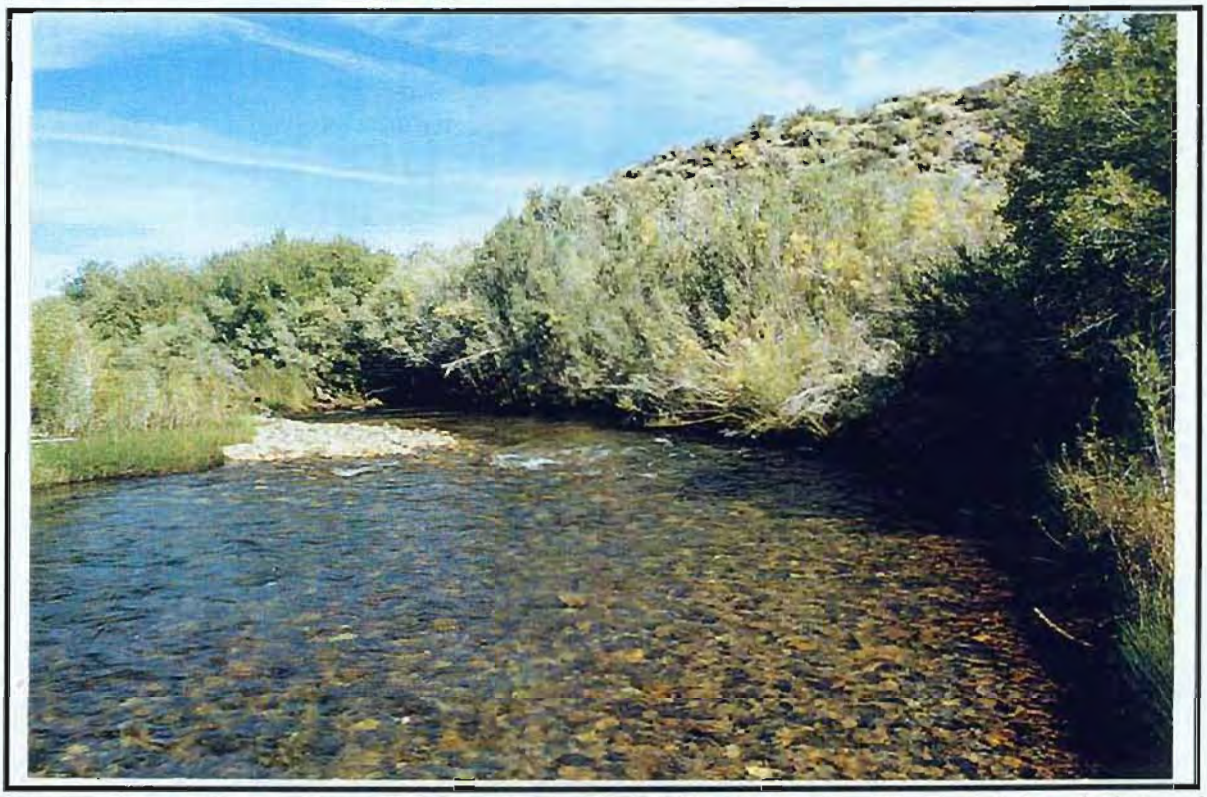
After: The rewatered Channel 10 as it flows around the toe of the valley wall. No channel work was required here. The 40 CFS flow occupied the historical stream planform and streambed topography.

PP9 **Before:** Upstream view depicts the dry historical Channel 10 as it follows the valley wall. Note the large and numerous dead cottonwood trees within this interfluve area.

After: The rewatered Channel 10 flowing along the toe of the valley wall. A small overflow channel cuts across the big bend. Approximately 40 CFS of discharge occupied the channel in mid-October. Other than rewatering, no other work was done in this reach.

PP9 **Before:** Downstream view depicts the dewatered terminus of Channel 10 as it joins the main channel of Rush Creek. No channel work was done other than rewatering the channel.

After: The historical Channel 10 was rewatered with ~40 CFS during mid-October, 1995. The large pool is ~4-5 feet in depth, 30 feet wide and ~250 feet long.



PP11 **Before:** Downstream view of the main channel of Rush Creek. The terminus of Channel 10 is along the dry willow/gravel berm on the right. This photograph as taken several days before Channel 10 was rewatered.

After: The photograph depicts the confluence of Channel 10 with the main channel of Rush Creek. The 40 CFS flow from Channel 10 enters the main channel at several points along the right bank. The dominant flow enters in the foreground. The configuration could change in time.

BEFORE AND AFTER CLOSE-UP PHOTOGRAPHS OF THE CHANNEL REWATERING; CHANNEL ENTRANCE AT STATION 0 + 00 TO THE CONFLUENCE WITH THE MAIN CHANNEL AT STATION 20 + 00

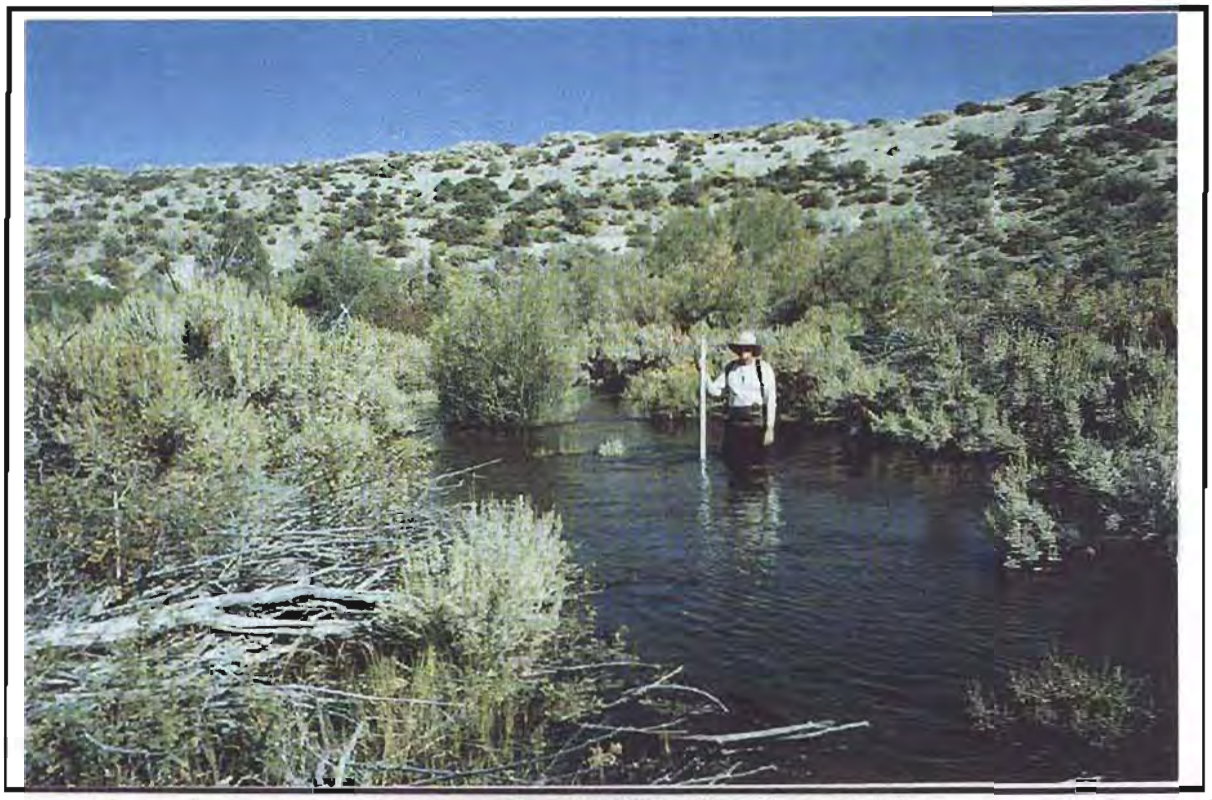
Before: Upstream view of entrance to Channel 10 during construction. Channel 10 is approximately 2000 feet in length.

After: Photograph depicts the final configuration of the constructed point bar. The smaller right channel is the existing side channel and the left channel is the constructed Channel 10 entrance. Channel 10 is designed to contain 2/3 of the incoming flow & the side channel will contain the remaining 1/3 and function as an overflow channel.

Before: Photograph depicts excavation/construction underway just downstream from the entrance to Channel 10. Removal of the gravel/debris plug took place from the entrance to a point 450 feet downstream.

After: View of the constructed channel. Sloping, armored streambanks and point bars were constructed along a planform which followed the toe of the valley wall. After the revegetation of the banks the channel is expected to remain relatively stable through a range of discharges.

Before: Photograph depicts historical Channel 10 approximately 600 feet downstream from channel entrance. No channel work was done from station 4+50 to station 20+00.

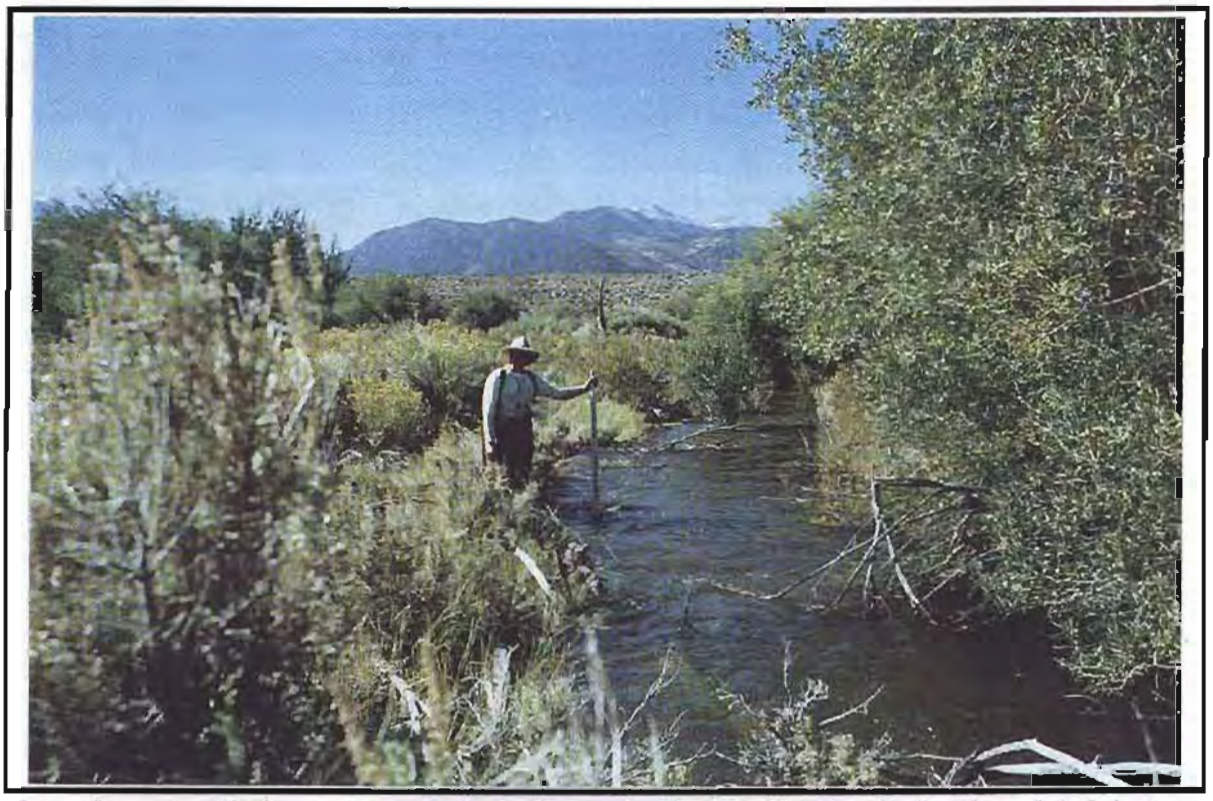


After: View of rewatered channel with ~40 CFS. The channel follows the toe of the valley wall for most of its' 2000 foot length. The channel is approximately 22 feet wide and 2 1/2 feet deep.

Before: Depiction of dry historical channel approximately 800 feet downstream from entrance.

After: Rewatered channel with ~40 CFS. Most of the habitat appears to be deep glides and pools with depths varying between 2 & 4 feet and with velocities of approximately 1-2 FPS. Waterfowl were seen utilizing this habitat.

Before: Historical Channel 10 approximately 1000 feet downstream from channel entrance.



After: Rewatered channel reach depicting typical run habitat with depths of 1-2 feet and velocities of 2-3 feet per second. Abundant woody debris can provide trout habitat and invertebrate production.

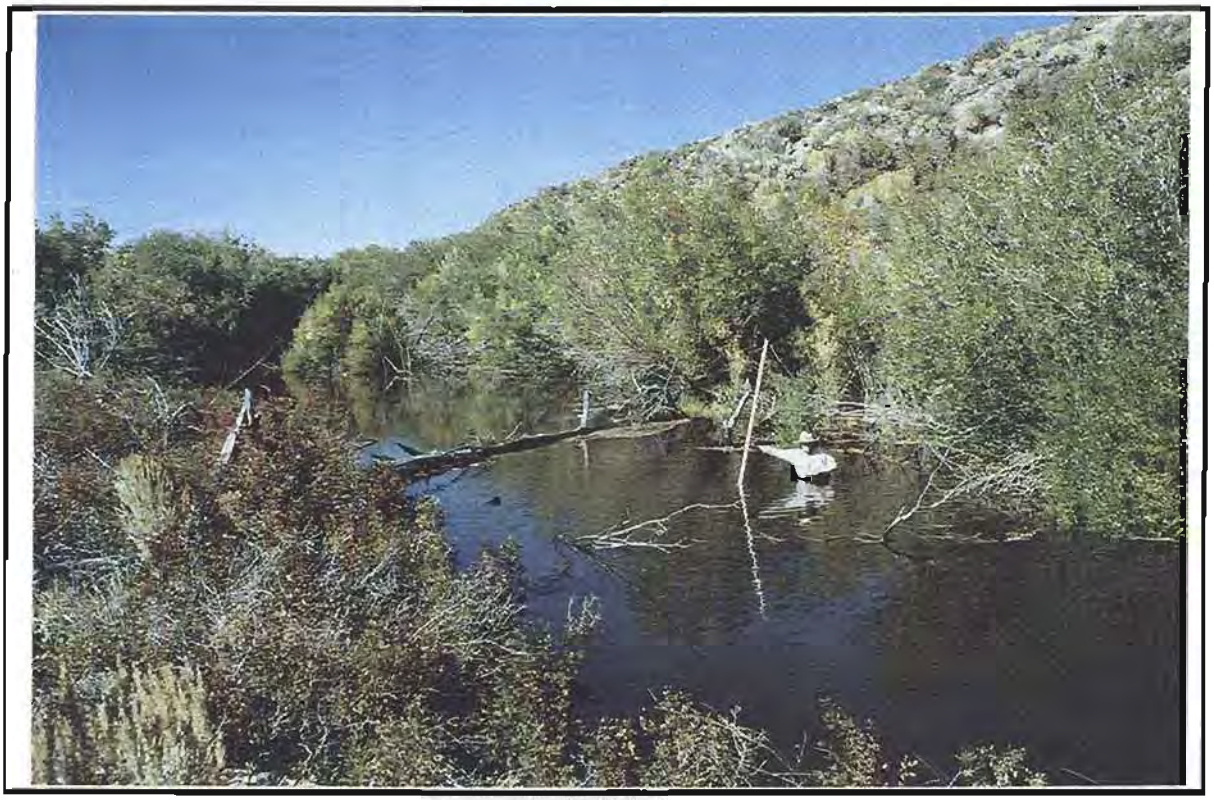
Before: Historical dry channel at the first big bend approximately 1300 feet downstream from the entrance. The gravel bed channel can provide spawning habitat and other fish and wildlife benefits.

After: View of rewatered channel with approximately 40 CFS. The water spreads out and will eventually provide wetlands and riparian vegetation.

Before: Historical Channel 10 approximately 1600 feet from the channel entrance. This reach is characterized by old beaver dams and abundant supplies of large and small woody debris.

After: The rewatered channel provides a variety of excellent deep water and wetlands that will provide habitat for fish and wildlife.

Before: Historical channel approximately 1800 feet downstream from the entrance. This reach is near the confluence with the main channel of Rush Creek. Wetland vegetation and large woody debris is abundant.



After: This reach contains a large pool which is ~300 feet long, 35 feet wide and 4-5 feet deep. The water has spread out into adjacent lowlands which will create additional wetland habitat. In addition, this reach will provide excellent fish and wildlife habitat.

Before: View of main channel of Rush Creek. The confluence of Channel 10 is on the left.

After: The exit of Channel 10 is along the upper left bank. The flow of ~40 CFS from Channel 10 enters the main channel in several places along the main channel.

APPENDIX 1

DESIGN CONSIDERATIONS FOR REWATERING THE CHANNEL 10 COMPLEX

NORTHWEST BIOLOGICAL CONSULTING
HABITAT RESTORATION - ENVIRONMENTAL PLANNING
Cal. Engineering Contractors Lic. #599428

To: Richard Ridenhour, Chris Hunter and Bill Trush

From: Scott English

Date: September 6, 1995

Subject: Response to Your Memorandum of August 2, 1995

OVERVIEW

This memorandum is a response to your request of Aug. 2, 1995, for design information regarding the rewatering of the Channel 10 complex through the Channel 10A alignment that follows the right valley wall. Please refer to Figure 1 and Aerial Photograph 1 for the location of the proposed channel work.

The overall concepts for rewatering the channel, construction techniques and Permit requirements are very similar to the plans and designs for rewatering the Channel 10B linkage. Please refer to the "Workplan for Rewatering Portions of Channels 9, 10B, and 10 in the Rush Creek Bottomlands, Mono County, California", August 1994, by Trihey and Associates. In addition, the rewatering of the Channel 10 complex, including Channels 10A, 10B, Channel 10B linkage and Channel 10 was generally described in a June 1994 Report (Stine, English & Taylor) to the RTC "Feasibility of Rewatering Abandoned Channels of the Rush Creek Bottomlands, Mono County, California."

Rewatering Channel 10A would simply entail moving the channel entrance ~900 Ft. upstream from the previous 10B linkage location. The primary benefit of implementing this concept would be to gain an additional ~800 Ft. of rewatered channel and riparian habitat as compared to the previous Channel 10 linkage plan. In addition, the channel alignment off the Rush Creek side channel appears to offer good hydraulic control.

P.O. Box 671 • 324 Terrace street • Ashland, Oregon 97520 • (503) 488-1061 Fax (503) 488-6717

DESIGN CONSIDERATIONS

The major design considerations for rewatering the 10A channel are as follows:

- Approximately 350 feet of channel with an eight foot bottom width and 2:1 side slopes would be excavated to reconnect approximately 1900 feet of the Channel 10 system to Rush Creek (Figure 1). The elevation of the land surface through which Channel 10A would be excavated is approximately 6 feet higher than the desired grade, and therefore the excavation would require the removal of approximately 550 cu. yds. of alluvial material and debris (Figure 2). The Channel 10A Planform is illustrated on Aerial Photograph 1.
- The gradient of the excavated channel would be approximately 0.5% (Figure 2).
- The bed topography would be uniform gradient and where feasible would match existing channel topography (Figure 2).
- The entrance to the channel system is designed for a flow of approximately 5 CFS at the stipulated flow of 47 CFS in Rush Creek during the summer of a normal runoff year. A bar and pool would be constructed in Rush Creek (side channel) to provide appropriate hydraulic conditions at the entrance to the 10A Channel. The upstream bar would separate the flow into two channels (Rush Creek Side Channel and 10A Channel) and a constructed downstream bar on Rush Creek Side Channel would help control the water level (Figure 3).
- The side channel of Rush Creek contained approximately 1/3 of the total discharge of Rush Creek. The 10A Channel is designed to contain approximately 1/3 of the flow in the Side Channel. For example, a total discharge of 47 CFS in Rush Creek would yield ~15.5 CFS in the Side Channel and the 10A Channel would receive 1/3 of that discharge, or approximately 5 CFS (Figures 4 and 5).
- The existing large woody debris, including the old beaver dams, and the grasses and sedges will be left undisturbed.
- No Limiter Logs will be placed at the entrance to the 10A Channel.

DEPOSITION OF EXCAVATED MATERIALS

The disposal of excavated materials (alluvial sands, gravels and debris) from the 10A Channel work will be deposited and graded into upland areas adjacent to the 10A Channel. No wetlands or riparian vegetation will be impacted by the excavated materials. The materials (estimated at 550 yds^3) will be spread around rather than concentrated and will be reseeded with native sagebrush, bitterbrush, rabbitbrush, Indian rice grass and other upland plant varieties. Please refer to aerial Photograph 1 for the proposed locations of the excavated material.

LABOR AND EQUIPMENT NEEDS
(Estimated 15 Full Work Days)

The following labor and equipment is requested:

- One tracked Hydraulic Excavator, with operator **or**
- One Tracked Loader (D-7 or Equivalent), with operator
- One Cat 910 Articulated Loader, with operator
- One Cat 950 or equivalent Front End Loader with operator
- One JD 310 Backhoe, with operator
- One or two standby Dump Trucks
- 2 hand Laborers
- Hand tools, Fire Pump hose, strawbales, Oil Containment boom, etc.

ESTIMATED PROJECT TIME

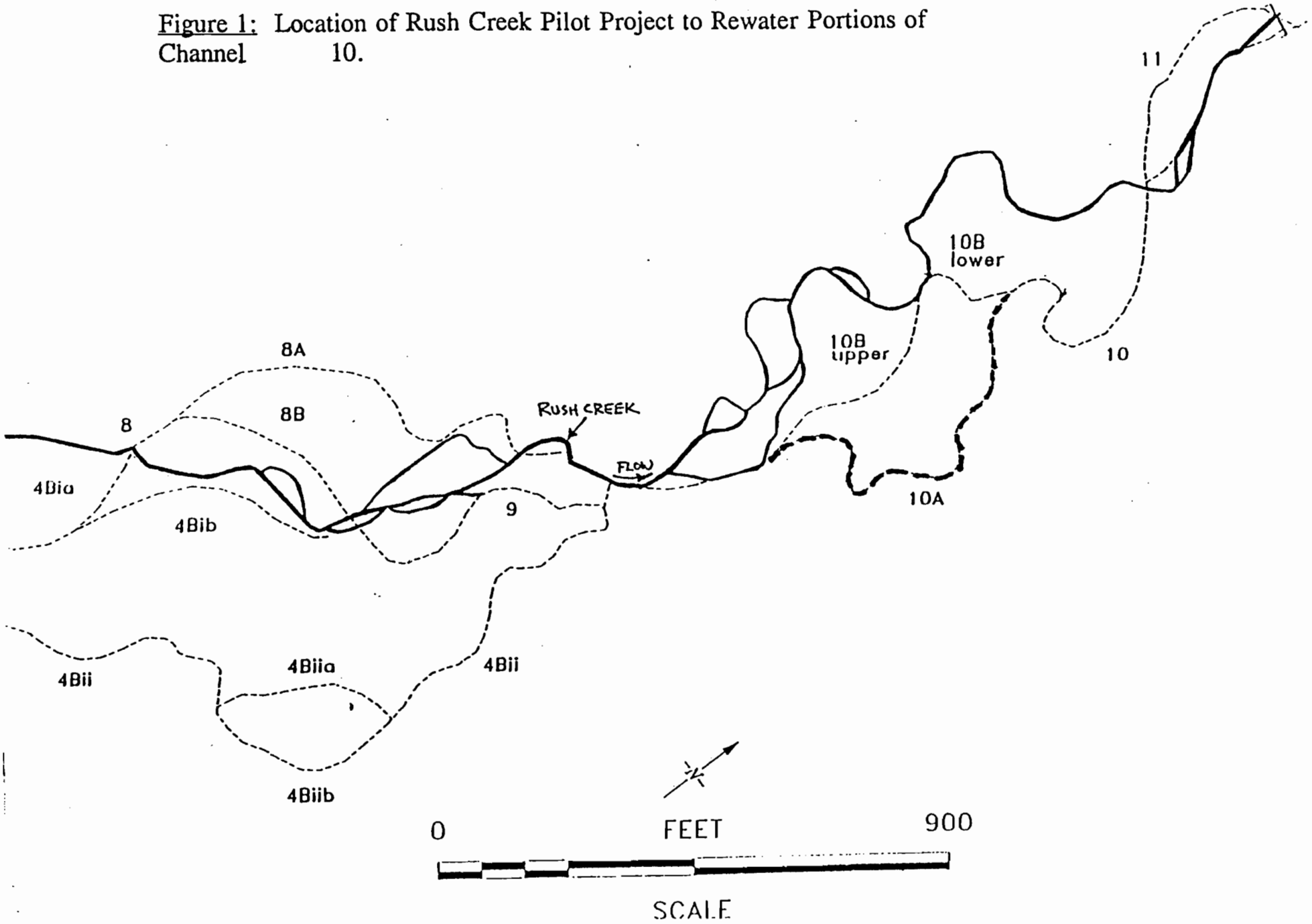
I estimate that the project will take 15 to 20 Work Days to complete.

Stream Restoration Specialist	~20 Days
Stream Restoration Field Assistant	~15 Days
Equipment Operators	~15 Days
Laborers	~15 Days

If feasible, I would like to begin work with the equipment and crews on Monday, September 25, 1995.

cc: Woody Trihey

Figure 1: Location of Rush Creek Pilot Project to Rewater Portions of Channel 10.



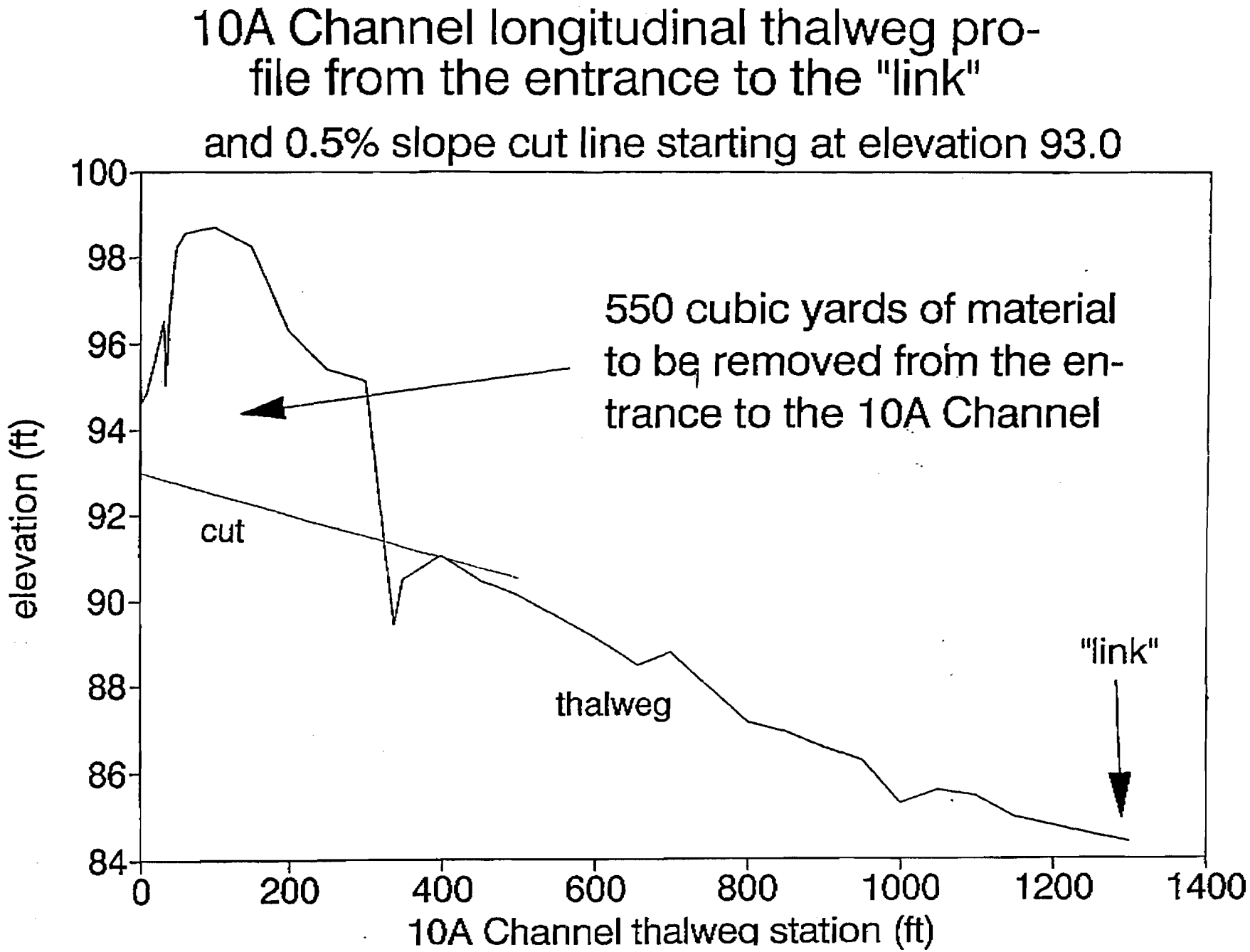

10A Channel longitudinal thalweg profile from the entrance to the "link"
and 0.5% slope cut line starting at elevation 93.0
550 cubic yards of material to be removed from the entrance to the 10A Channel
cut
thalweg
"link"
elevation (ft)
100
98
96
94
92
90
88
86
84
0
200
400
600
800
1000
1200
1400
10A Channel thalweg station (ft)

FIGURE 2

Estimated side channel cross section at the entrance to the 10A Channel

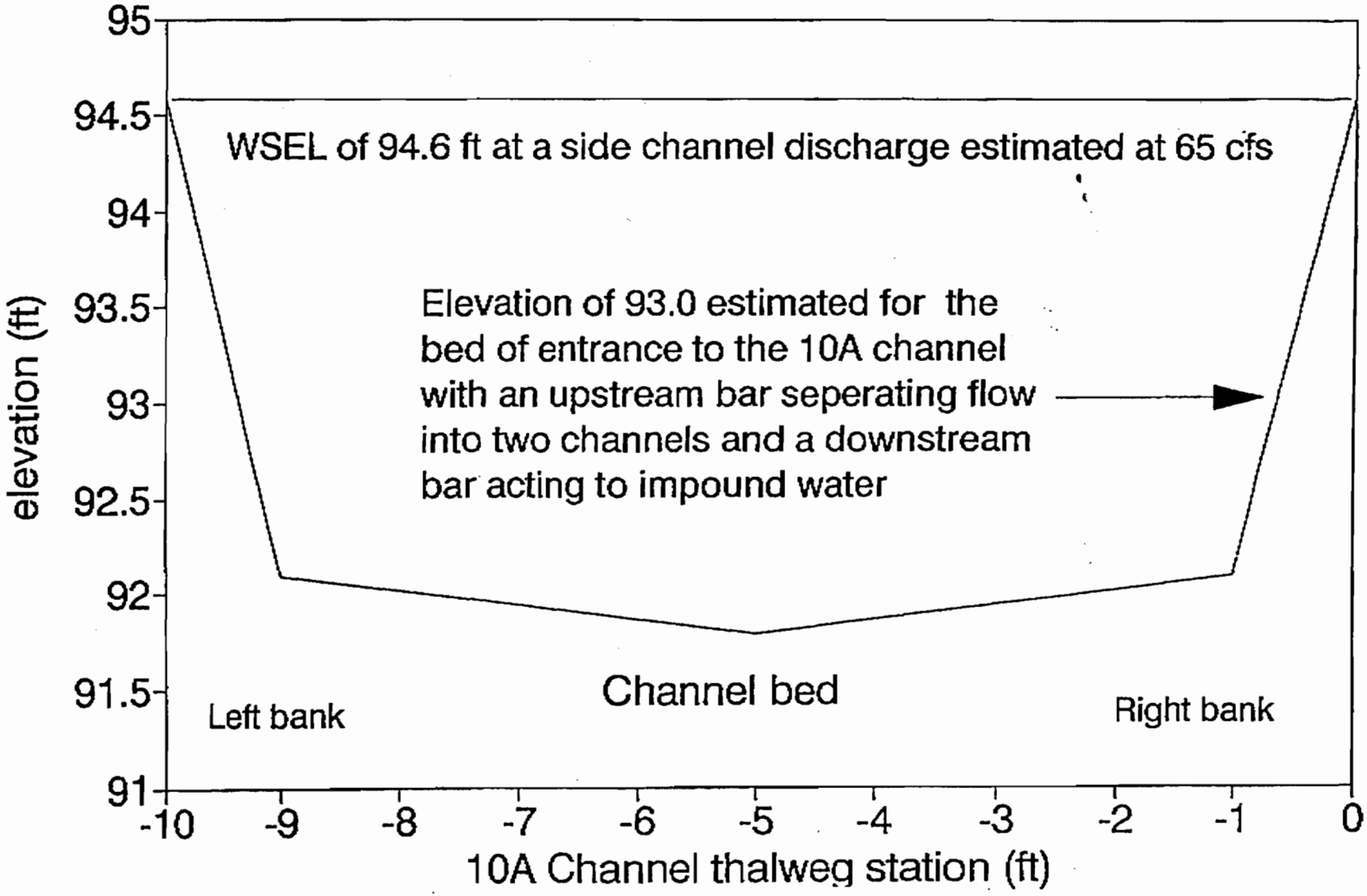


FIGURE 3

Side channel longitudinal profile from Rush Creek to near the 10A entrance

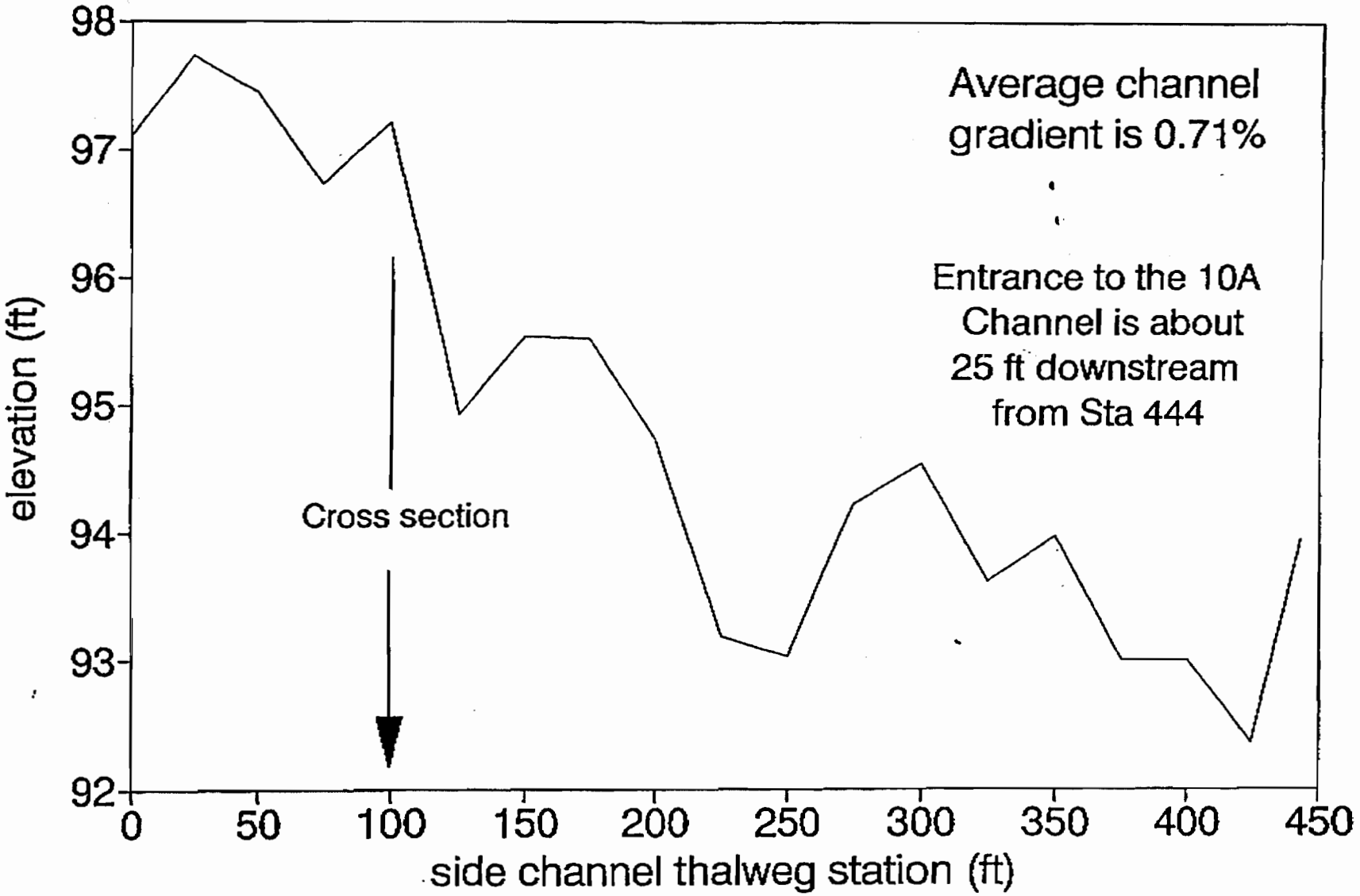


FIGURE 4

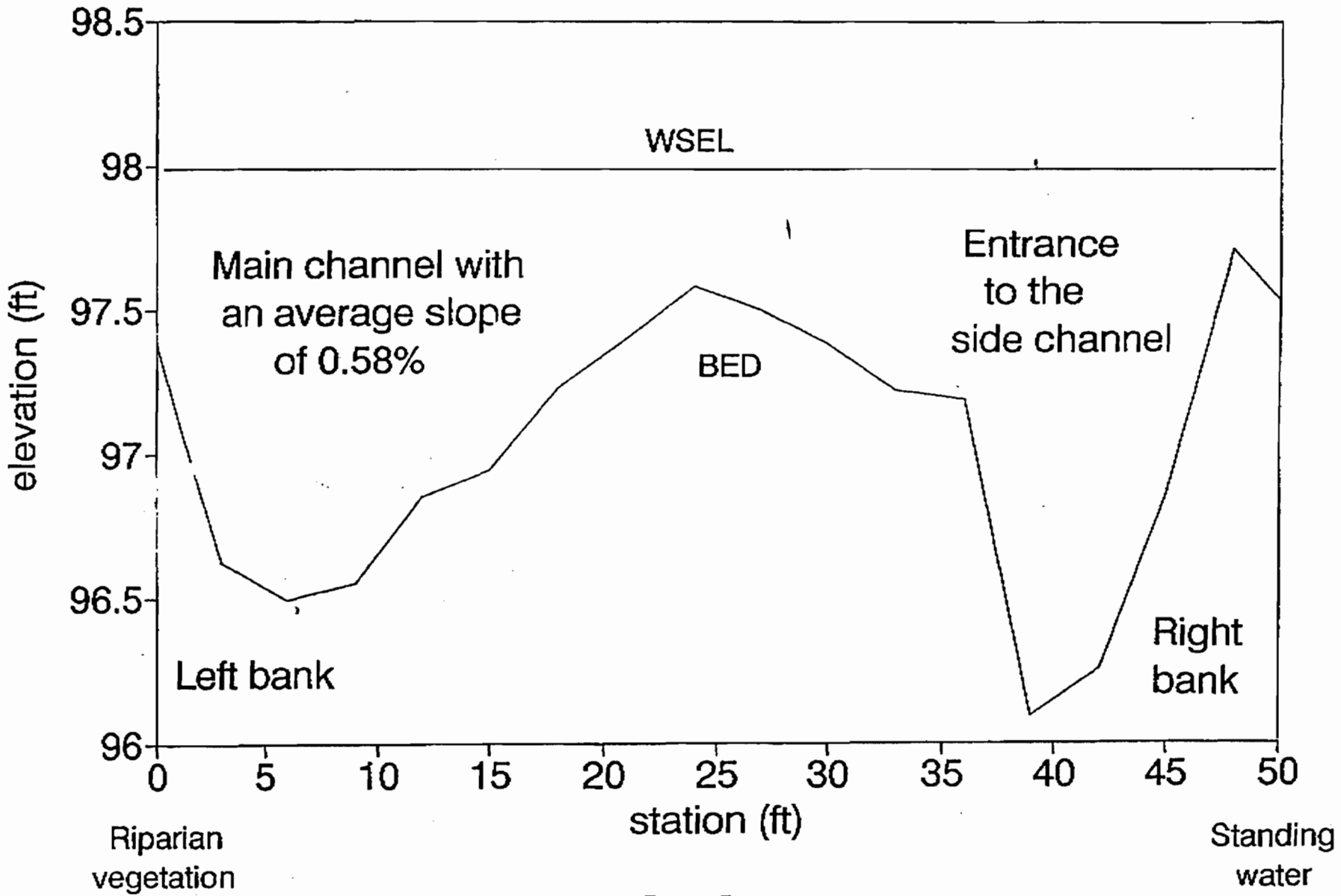

Cross section at Sta 100 of MC Rush Cr
through the side channel entrance
98.5
98
97.5
97
96.5
96
elevation (ft)
WSEL
Main channel with
an average slope
of 0.58%
BED
Entrance
to the
side channel
Left bank
Right
bank
0
5
10
15
20
25
30
35
40
45
50
station (ft)
Riparian
vegetation
Standing
water

FIGURE 5

APPENDIX 2

LETTER OF AUTHORIZATION

Trihey & Associates, Inc.
Environmental Consultants and Engineers

4180 Treat Blvd., Suite N
Concord, CA 94518
(510) 689-8822
(510) 689-8874 FAX

September 19, 1995

Mr. Scott English
Northwest Biological Consulting
324 Terrace Street
Ashland, OR 97520

Letter of Authorization
1995 Rush Creek Construction Supervision

This Letter of Authorization defines the scope of work and the associated budget for assisting with the Mono Basin stream restoration program. The scope of work for Task G7c, Construction Supervision - Rush Creek, is described below.

Description of Services

Under the general direction of Trihey & Associates, Inc., Mr. English will be on-site to oversee the rewatering of the channel 10 complex of Rush Creek. This rewatering will be performed in accord with Mr. English's September 6, 1995 memo to Dr. Ridenhour and as amended by Dr. Ridenhour's September 13 reply.

Mr. English will work directly with DWP staff to arrange for equipment, personnel, and materials, and to accomplish the rewatering in accord with the agreed upon work plan. Mr. English may employ field assistants as he deems appropriate provided such employment does not result in total project costs exceeding the authorized amount.

Estimated Starting Date: September 19, 1995

Estimated Completion Date: October 15, 1995

Estimated Total Cost

The total estimated time to complete this scope of work is approximately 20 person days and the total cost to be incurred for labor and direct costs to perform Task G7c is $25,000. Total estimated costs shall not exceed $25,000 without authorization from Mr. Trihey. Charges pertaining to this work shall be billed to Task G7c.

Trihey & Associates, Inc. Representative: E. Woody Trihey
Contractor's Representative: Scott English

Accepted:

Trihey & Associates, Inc.

By: E. Woody Trihey
E. Woody Trihey

Title: Restoration Consultant

Date: Sept 19, 1995

Northwest Biological Consulting

By: Scott English
Scott English

Title: Restoration Specialist

Date: Sept 19, 1995

APPENDIX 3

CONDITIONAL WAIVER FOR CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN REGION

STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - LAHONTAN REGION
2092 LAKE TAHOE BOULEVARD
SOUTH LAKE TAHOE, CALIFORNIA 96150
(916) 542-5400 FAX (916) 544-2271

August 7, 1995

Mitchell M. Kodama
Assistant Engineer in Charge
Los Angeles Aqueduct Division
Department of Water and Power
City of Los Angeles
Box 111
Los Angeles, CA 90051-0100

Dear Mr. Kodama:

REVISED CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS AND CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION FOR LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) RUSH CREEK RESTORATION PROJECT (REWATERING PORTIONS OF CHANNELS 9,10, AND 10B), MONO COUNTY

By June 9, 1995 correspondence, you requested to make minor modifications to the subject project. We understand that the modifications involve relocating the entrance of Channel 10B approximately 200 to 300 yards upstream from the location shown in the February 1995 and August 1994 project plans. The amount of area to be impacted by the project remains the same. As a result of the modifications, an additional 200 to 300 yards of dry channel will be rewatered. The modifications were recommended by the Stream Restoration Technical Advisory Group (TAG). The TAG members were formerly of the Restoration Technical Committee (RTC) which had been overseeing much of the Rush and Lee Vining Creek restoration work under the direction of the El Dorado County Superior Court. With the advent of the State Water Resources Control Board (SWRCB) Decision 1631, the RTC was disbanded, and the TAG was formed to oversee restoration work in the Mono Basin.

Based upon our review of the modifications, we conclude it is not against the public interest to waive the waste discharge requirements and Clean Water Act Section 401 Water Quality Certification for the project as modified. The project modifications are discussed below in the Project Description section, and are shown in ***bold, italic*** text. Please note that all other text is identical to that in our April 13, 1995 waiver, and is only included below for your convenient reference.

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 10
To BRIAN TILLEMANS	From STEVE McKAIN
Co. MIKE COA	Co.
Dept.	Phone #
Fax #	Fax #

Project Description

Channel 9 System
A bar and pool will be constructed in Rush Creek to provide appropriate hydraulic conditions at the entrance to the channel link. Construction of this bar-pool would involve the movement of approximately 40 cubic yards of Rush Creek streambed. Limiter logs, for flow control, will be placed at the channel link. Riparian vegetation will be re-established. Debris will be removed from the channel. The total area of disturbance at this site is estimated at approximately 1500 square feet.

Channel 10 System
A bar and pool, ***as shown in the attached drawing,*** will be constructed in Rush Creek to provide appropriate hydraulic conditions in Rush Creek at the entrance to the channel link. Construction of the bar-pool complex would involve the movement of approximately 40 cubic yards of Rush Creek streambed. Limiter logs, for flow control, will be placed at the channel link. Riparian vegetation will be re-established. Debris will be removed from the channel. The total disturbance at this site is estimated at 1500 square feet.

We meet with Mr. Scott English, Dr. Scott Stine, and Mr. Trihey on July 13, 1994 to inspect sites proposed restoration projects, including those proposed for Channels 9, 10 and 10B. We understand that, under a ruling from the California Third District Court of Appeals, the Los Angeles Department of Water and Power (LADWP) is required to restore aquatic and riparian habitats of Rush and Lee Vining Creeks, tributaries to Mono Lake. This restoration must be performed in consultation with a court-appointed technical review committee, referred to as the Rush and Lee Vining Creek Restoration Technical Committee (RTC).

California Environmental Quality Act Compliance

LADWP prepared and circulated a Negative Declaration titled *Rewatering portions of Channels 9, 10B, and 10 in the Rush Creek Bottomland*(State Clearinghouse Number 94101040; Notice of Determination filed February 7, 1995). Potential impacts from the work proposed in the Project and appropriate mitigation appear to be adequately discussed in this Negative Declaration.

Clean Water Act Section 401 Water Quality Certification

Total disturbance at the Project site is estimated at 3000 square feet, or 0.07 acre. We discussed this proposed project with Ms. Tiffany Welch, U.S. Army Corps of Engineers, Ventura field office on July 21, 1994. She said it was likely that the project could proceed under a Nationwide Clean Water Act Section 404 Permit. Additional language regarding water quality certification is included below under the section titled "Waiver Granted."
On August 3, 1995, Cindy Wise of my staff discussed the project modifications with Ms. Tiffany Welch, U.S. Army Corps of Engineers, Ventura Field Office. Ms. Welch said that the project, as modified, could proceed under its existing U.S. Army Corps authorization, provided our waiver conditions were not changed (they were not changed).

4. The Project proponent shall permit Regional Board staff:

   a. to enter the Project site;

   b. to access and to copy any records required to be kept under the terms of this waiver; and

   c. to sample any discharge.

Waiver Granted

In accordance with Section 13269 of the California Water Code, waste discharge requirements for the Project are waived. Failure to abide by the conditions of this waiver, or the creation of a water quality problem due to construction of the Project, may result in the revocation of this waiver and the initiation of enforcement action as authorized by the provisions of the California Water Code. This waiver shall expire on **November 30, 1995.**

Pursuant to California Code of Regulations Section 3857, this action is equivalent to waiver of water quality certification. We anticipate no further action on your application, however, should new information come to our attention that indicates a water quality problem, we may issue waste discharge requirements.

We look forward to the successful restoration of Rush Creek, and appreciate your efforts to protect water quality. If you have any questions, please contact Cindy Wise at (916) 542-5408.

Sincerely,

Harold J. Singer

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment (1) - Erosion Control Guidelines

cc: E. W. Trihey/Trihey and Associates
J. Canaday/DWR/SWRCB
O. Balaguer/DWQ/SWRCB
T. Welch/Army Corps of Engineers, Ventura Field Office 1-805-641-2935
Wetlands Section/U.S. Environmental Protection Agency/Region 9

CRW/dm19/rushwav.crw

The following are guidelines for construction projects regulated by the Regional Board, particularly for projects located in portions of the Region where erosion and stormwater threaten sensitive watersheds. The Regional Board recommends that each county within the Region adopt a grading/erosion control ordinance to require implementation of these same guidelines for all soil disturbing activities:

1. Surplus or waste material should not be placed in drainageways or within the 100-year floodplain of any surface water.

2. All loose piles of soil, silt, clay, sand, debris, or other earthen materials should be protected in a reasonable manner to prevent any discharge to waters of the State.

3. Dewatering should be performed in a manner so as to prevent the discharge of earthen material from the site.

4. All disturbed areas should be stabilized by appropriate soil stabilization measures by October 15th of each year.

5. All work performed during the wet season of each year should be conducted in such a manner that the project can be winterized (all soils stabilized to prevent runoff) within 48 hours if necessary. The wet season typically extends from October 15th through May 1st in the higher elevations of the Lahontan Region. The season may be truncated in the desert areas of the Region.

6. Where possible, existing drainage patterns should not be significantly modified.

7. After completion of a construction project, all surplus or waste earthen material should be removed from the site and deposited in an approved disposal location.

8. Drainage swales disturbed by construction activities should be stabilized by appropriate soil stabilization measures to prevent erosion.

9. All non-construction areas should be protected by fencing or other means to prevent unnecessary disturbance.

10. During construction, temporary protected gravel dikes, protected earthen dikes, or sand bag dikes should be used as necessary to prevent discharge of earthen materials from the site during periods of precipitation or runoff.

11. Impervious areas should be constructed with infiltration trenches along the downgradient sides to dispose of all runoff greater than background levels of the undisturbed site. Infiltration trenches are not recommended in areas where infiltration poses a risk of ground water contamination.

12. Infiltration trenches or similar protection facilities should be constructed on the downgradient side of all structural drip lines.

13. Revegetated areas should be continually maintained in order to assure adequate growth and root development. Physical erosion control facilities should be placed on a routine maintenance and inspection program to provide continued erosion control integrity.

14. Waste drainage waters in excess of that which can be adequately retained on the property should be collected before such waters have a chance to degrade. Collected water shall be treated, if necessary, before discharge from the property.

15. Where construction activities involve the crossing and/or alteration of a stream channel, such activities should be timed to occur during the period in which stream flow is expected to be lowest for the year.

16. Use of materials other than potable water for dust control (i.e., reclaimed wastewater, chemicals such as magnesium chloride, etc.) is strongly encouraged but must have prior Regional Board approval before its use.