

**Meeting of the Central Valley Flood Protection Board  
9/23/2011  
Staff Report  
Nevada Irrigation District  
Nature-Like Fish Way – Auburn Ravine, Placer County**

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**1.0 – ITEM**

Consider approval of Permit No. 18680 (Attachment B)

**2.0 – APPLICANT**

Nevada Irrigation District

**3.0 – LOCATION**

The project is located along Auburn Ravine, approximately 0.25 miles west of Highway 65, and 0.10 miles south of Poplar Lane, within Lincoln Crossroads Nature Preserve, Placer County, see Attachment A)

**4.0 – DESCRIPTION**

Applicant proposes to install a “nature-like fish way” consisting of a series of rock chutes and armored step pools; stabilizing elements such as concrete-capped sheet piles placed within matrix of large rock, and other smaller materials mixed in a throughout.

**5.0 – PROJECT ANALYSIS**

Installation of a series of pools and chutes to provide fish passage over the existing Parshall Flume gauge station. A coffer dam and 36 inch diameter (minimum) stream bypass pipe will be installed upstream of the Parshall Flume structure before any work is commenced in the stream channel. To construct and install eight sheet piles ranging between 50 feet to 65 feet in length to traverse the stream channel. Four of the sheet piles will be capped with a 2-foot concrete pile cap. The sheet piles will be driven to a

depth of 16 feet into the native stream bed. A minimum 3-foot deep engineered, compacted, streambed will then be installed. Boulders ranging in size between 9 to 54 inches will be placed, and then finer sediments (#8 and #10 sieves) will then be compacted to fill any voids in the boulders.

To provide fish passage the existing 6-foot barrier caused by the narrowing of the channel associated with the existing (1981) Parshall Flume structure will be removed. A new engineered stream bed will be placed within the existing channel to overcome the six foot incised cut resulting from the 1981 installation and operation of the Parshall Flume Gaging Station. The current approximate 6-foot drop from the flume apron will be spread over the approximate 188-foot length of fish passage improvement.

The fish passage improvements include a new roughened channel with rock chutes and pools at an average slope of %4. The constructed chute-and-pool features will occupy approximately 6,392 sf. within the stream channel covering area of 34 feet by 188 feet. The maximum area of disturbance to accomplish the project is approximately 0.9 acres. The upstream end of the roughened channel will begin at the downstream edge of the gaging station flume. Flow will exist the flume into the upstream transition pool, will then travel over a series of chutes and pools, with varying lengths, until the downstream transition pool, which connects to the existing channel.

Engineered streambed material will be installed between the grade control structures. All construction within the existing stream zone will occur after the stream is dewatered and temporarily re-routed via the 36-inch diameter water diversion pipe during low flow season. All fill materials will be confined to the engineered fish passage channel. The new chute and pools improvement will occupy approximately 6,392 sf. within the stream channel covering an area of 34 feet by 188 feet. The work will occur along the stream banks in the form of reshaping and placement of rock boulders (42 to 54 inches) to stabilize the banks of entire length (188 feet) of the new fish passage channel.

## **5.1 – HYDRAULIC ANALYSIS**

The hydraulic analysis (HEC-RAS) was performed by Winzler & Kelly. No expected increase in the WSE for the 100-year storm event upstream/downstream of the project. The possible increase of approximately 0.1 ft. within the project reach is not considered significant.

## **5.2 – GEOTECHNICAL ANALYSIS**

No geotechnical analysis is required.

## **6.0 – AGENCY COMMENTS AND ENDORSEMENTS**

The comments and endorsements associated with this project, from all pertinent agencies are shown below:

- Placer County Flood Control and Water Conservation District endorsed this project on June 15, 2011.
- The U.S. Army Corps of Engineers (Corps) 208.10 comment letter was received on August 23, 2011 for this application (See Attachment B, Exhibit A). It states that “the District Engineer has no comments or recommendations regarding flood control because the proposed work does not affect a federally constructed project.”

## **7.0 – CEQA ANALYSIS**

Board staff has prepared the following CEQA Findings:

The Board, as a responsible agency under CEQA, has reviewed Initial Study/Mitigated Negative Declaration (SCH Number: 2011032003, March 2011) and Mitigation Monitoring and Reporting Program for the Auburn Ravine Gaging Station Fish Passage Improvement Project prepared by the lead agency, the Nevada Irrigation District. These documents, including project design, may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvpfb.ca.gov/meetings/2011/9-23-2011.cfm> under a link for this agenda item. These documents are also available for review in hard copy at the Board and the Nevada Irrigation District office.

The Nevada Irrigation District has determined that the project would not have a significant effect on the environment and adopted Resolution No. 2011-09 at the Nevada Irrigation District Board of Director’s Meeting on April 27, 2011 and subsequently filed a Notice of Determination on April 29, 2011 with the Placer County Clerk. Board staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project

proponent. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures are included in the project proponent's Mitigation Monitoring and Reporting Program and address impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and noise. The description of the mitigation measures are further described in the adopted Mitigation Monitoring and Reporting Program.

## **8.0 – SECTION 8610.5 CONSIDERATIONS**

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

None.

4. Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

Insignificant.

## **9.0 – STAFF RECOMMENDATION**

Staff recommends that the Board adopt the CEQA findings, approve permit No. 18680 and direct staff to file a Notice of Determination with the State Clearinghouse.

## **10.0 – LIST OF ATTACHMENTS**

- A. Location Maps and photos
- B. Draft Permit No. 18680 BD  
Exhibit A – Corps Non-Fed Letter

Design Review:	Sam Brandon
Environmental Review:	James Herota, Andrea Mauro
Document Review:	Mitra Emami P.E., Len Marino P.E.



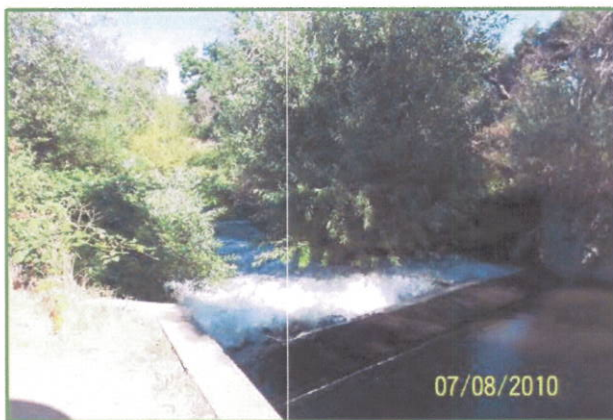


Question 8E – Site Photographs



Looking up stream channel from north bank near marshy edge in northwest area of study area.

Stream channel from south bank looking northwest.



Gaging station spillway looking downstream during high spring flows.

**DRAFT**

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
**THE CENTRAL VALLEY FLOOD PROTECTION BOARD**

**PERMIT NO. 18680 BD**

**This Permit is issued to:**

Nevada Irrigation District  
1036 West Main Street  
Grass Valley, California 95945

To install a "nature-like fishway" consisting of a series of rock chutes and armored step pools; stabilizing elements such as concrete-capped sheetpiles placed within a matrix of large rock, and other smaller materials mixed in throughout. Located approximately 0.25 miles west of State Highway 65 along Auburn Ravine, and 0.10 miles south of Poplar Lane, within the Lincoln Crossroads Nature Preserve (Section 15, T12N, R6E, MDB&M, Placer County Flood Control and Water Conservation District, Auburn Ravine, Placer County).

**NOTE:** Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

**(SEAL)**

Dated: \_\_\_\_\_

\_\_\_\_\_  
Executive Officer

**GENERAL CONDITIONS:**

**ONE:** This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

**TWO:** Only work described in the subject application is authorized hereby.

**THREE:** This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

**FOUR:** The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

**FIVE:** Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection



Board.

**SIX:** This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

**SEVEN:** It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

**EIGHT:** This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

**NINE:** The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

**TEN:** The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

**ELEVEN:** The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

**TWELVE:** Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

#### **SPECIAL CONDITIONS FOR PERMIT NO. 18680 BD**

**THIRTEEN:** All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

**FOURTEEN:** The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources, Placer County Flood Control And Water Conservation District or any other agency responsible for maintenance.

**FIFTEEN:** The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

**SIXTEEN:** The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

SEVENTEEN: A civil engineer registered in the State of California representing the permittee shall provide periodic reports and records to the Department of Water Resources that are acceptable to the Central Valley Flood Protection Board which certifies that all work accomplished by contract to the permittee was thoroughly inspected and performed in accordance with submitted drawings, specifications, and permit conditions.

EIGHTEEN: The permittee shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

NINETEEN: The Central Valley Flood Protection Board, Department of Water Resources, and Placer County Flood Control And Water Conservation District shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

TWENTY: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

TWENTY-ONE: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

TWENTY-TWO: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

TWENTY-THREE: Cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1 to April 15.

TWENTY-FOUR: All debris generated by this project shall be disposed of outside the floodway.

TWENTY-FIVE: If the proposed project result(s) in an adverse hydraulic impact, the permittee shall provide appropriate mitigation measures, to be approved by the Central Valley Flood Protection Board, prior to implementation of mitigation measures.

TWENTY-SIX: This project does not affect a federally constructed project and the U.S. Army Corps of Engineers' District Engineer has no comments or recommendations regarding flood control, as stated in the U.S. Army Corps of Engineers letter dated August 23, 2011, which is attached to this permit as Exhibit A and incorporated by reference.



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. Army Engineer District, Sacramento  
Corps of Engineers  
1325 J Street  
Sacramento, California 95814-2922

Flood Protection and Navigation Section (18680)

AUG 23 2011

Mr. Jay Punia, Executive Officer  
Central Valley Flood Protection Board  
3310 El Camino Avenue, Room 151  
Sacramento, California 95821

Dear Mr. Punia:

We have reviewed a permit application by the Nevada Irrigation District (application number 18680). This project includes installing a "nature-like fishway" consisting of a series of rock chutes and armored step pools; stabilizing elements such as concrete-capped sheet piles placed within a matrix of large rock, and other smaller materials mixed in throughout. The project is located 0.25 miles west of State Highway 65 along Auburn Ravine, and 0.10 miles south of Poplar Lane, within the Lincoln Crossroads Nature Preserve at 38.8831°N 121.2981°W NAD83, Placer County, California.

The District Engineer has no comments or recommendations regarding flood control because the proposed work does not affect a federally constructed project.

A Section 10 and/or Section 404 permit application (2011-00141) is in process for this work.

A copy of this letter is being furnished to Mr. Don Rasmussen, Chief, Flood Project Integrity and Inspection Branch, 3310 El Camino Avenue, Suite LL30, Sacramento, CA 95821.

Sincerely,

A handwritten signature in black ink that reads "Meegan G. Nagy".

Meegan G. Nagy, P.E.  
Chief, Flood Protection and Navigation Section