

Members

Diane Dillon
Mark Luce
Michael Novak*
Steven Rosa
Mark Van Gorder
Gary Kraus*
Leon Garcia
Jim King
Jeff Reichel
Phill Blake
Don Gasser
Kate Dargan
Jeffrey Redding
Robert Steinhauer
Charles Slutzkin
Marc Pandone
Richard Camera
**pending confirmation*

Alternate

Harold Moskowite

AGENDA

REGULAR BOARD MEETING

**Thursday, February 22, 2007
4:00 p.m.**

**2nd Floor Conference Room, Hall of Justice Building,
1125 Third Street, Napa CA**

Staff Representatives

Patrick Lowe,
Secretary
Deputy Director,
Conservation Div., CDPD

Jeff Sharp,
Watershed Coordinator
Planner III,
Conservation Div., CDPD

Laura Anderson,
Counsel
Attorney IV,
County Counsel's Office

1. **CALL TO ORDER & ROLL CALL** (Chairman)
2. **APPROVAL OF ACTION MINUTES** (Chairman)
Meetings of September 28, 2006, October 26, 2006, November 16, 2007 and December 28, 2007
3. **PUBLIC COMMENT**
In this time period, anyone may comment to the Board regarding any subject over which the Board has jurisdiction, or request consideration to place an item on a future Agenda. No comments will be allowed involving any subject matter that is scheduled for discussion as part of this Agenda. Individuals will be limited to a three-minute presentation. No action will be taken by the Board as a result of any item presented at this time. (Chairman)
4. **ANNOUNCEMENTS** (Board/Staff)
 - a. **“Linking Water and Land Use in the San Francisco Bay Area”** a workshop hosted by the Local Government Commission and the Bay Area Water Forum, on Monday April 23, 2007 (Staff)
 - b. **6th Annual Watershed Day at the Capital**, March 21, 2007, organized by the California Watershed Network (Staff)
 - c. **25th Annual Salmonid Restoration Conference**, March 7-10, 2007 in Santa Rosa coordinated by the Salmonid Restoration Federation (Staff)
 - d. **WICC Technical Advisory Committee (TAC)** meeting, March 14, 2007; to review draft indicators in support Watershed Monitoring Program and draft results from Stillwater's steelhead study (Staff)
 - e. **WICC Board appointments re-scheduled** for Board of Supervisors February 27, 2007; City of Calistoga nomination, Gary Kraus, and a Public at Large member will be considered (Staff)
 - f. Others (Board/Staff)

5. **UPDATES/REPORTS:**

- a. Update and report on the **Zinfandel Lane Bridge fish barrier** assessment, proposed method for removing the barrier, expressed community interest and next steps for the project (Staff/RCD)
- b. Update on Napa County's **Parks and Open Space District** (Staff)
- c. Others (Board/Staff)

6. **UPDATE, DISCUSSION AND POSSIBLE DIRECTION TO STAFF ON COUNTY GENERAL PLAN UPDATE PROCESS, DRAFT GENERAL PLAN AND ENVIRONMENTAL IMPACT REPORT, PUBLIC MEETING SCHEDULE AND PUBLIC COMMENT PERIOD:**

Update, report and possible direction to staff regarding the County **General Plan Update** process, circulation of Draft **General Plan** and **Environmental Impact Report, Public Meeting Schedule**, and **60-day Public Review/Comment Period** (Planning Director/Staff)

7. **UPDATE, DISCUSSION AND POSSIBLE DIRECTION TO STAFF REGARDING REGIONAL WATER QUALITY CONTROL BOARD'S (RWQCB) STREAM AND WETLAND SYSTEM PROTECTION POLICY, BASIN PLANNING PROCESS AND OTHER STATE WATER BOARD POLICY DEVELOPMENTS:**

Update, discussion and possible direction to staff regarding RWQCB's Stream and Wetland System Protection Policy and associated Basin Planning process, possible presentation on by RWQCB staff; and other State Water Resources Control Board policy developments (Staff)

8. **PRESENTATION AND DISCUSSION – USING HISTORICAL LANDSCAPE CHANGES TO GUIDE FUTURE WATERSHED RESTORATION OPPORTUNITIES:**

Presentation and discussion of research conducted to examine how historical changes in Napa Valley's landscape can be used to guide current and future watershed restoration opportunities, and inform watershed management and monitoring activities (SFEL/Staff)

9. **FUTURE AGENDA ITEMS** (Board/Staff)

10. **NEXT MEETING:**

Regular Board Meeting of March 22, 2007 – 4:00 PM

Hall of Justice Building, 2nd floor Conference Room, 1125 Third Street, Napa

11. **ADJOURNMENT** (Chairman)

Note: If requested, the agenda and documents in the agenda packet shall be made available in appropriate alternative formats to persons with a disability. Please contact Jeff Sharp at 707-259-5936, 1195 Third St., Suite 210, Napa CA 94559) to request alternative formats.



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- MINUTES / ACTION SUMMARY -

REGULAR BOARD MEETING

Thursday, September 28, 2006 at 4:00 p.m.

**2nd Floor Conference Room, Hall of Justice Building,
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Laura Anderson,
Counsel
Attorney IV,
County Counsel's Office

1. **CALL TO ORDER & ROLL CALL** (Chairman)

Members Present: Diane Dillon, Mark Luce, Steven Rosa, Mark Van Gorder, Jeff Reichel, Phill Blake, Don Gasser, Robert Steinhauer, Charles Slutzkin, Marc Pandone

Members Absent Excused: Karen Slusser, Leon Garcia, Kate Dargan, Jeffrey Redding, Richard Camera

Members Absent: Eric Sklar

Staff Present: Patrick Lowe, Jeff Sharp

2. **APPROVAL OF ACTION MINUTES**

Regular meeting of June 22, 2006 (Chairman)

Outcome: Approved as presented.

3. **PUBLIC COMMENT**

In this time period, anyone may comment to the Board regarding any subject over which the Board has jurisdiction, or request consideration to place an item on a future Agenda. No comments will be allowed involving any subject matter that is scheduled for discussion as part of this Agenda. Individuals will be limited to a three-minute presentation. No action will be taken by the Board as a result of any item presented at this time. (Chairman)

Outcome: None presented.

4. **ANNOUNCEMENTS** (Board/Staff)

- a. **2006 "Creek to Bay Clean-Up" a big success** - 550 volunteers remove 6.2 tons of trash and 1.2 tons of recyclables from Napa County waterways and lakes (Staff)

Outcome: Informational. Staff noted the success of the clean-up effort. RCD staff mentioned that there was significantly more trash collected this year and more participation from volunteers in the community. More outreach and more clean-up sites were identified for this year's clean-up.

- b. **Funding awarded for Road Improvement and Demonstration Projects in Sulphur and Carneros Creek watersheds** from State Water Resources Control Board (Staff/RCD)

Outcome: Informational. Staff provided a brief background on the project, totaling around \$400,000 worth of work, 25% of which is local matching funds, showing the commitment of those involved. The project is estimated to remove/prevent over 20,000 cubic yards of sediment delivery to the Sulphur and Carneros creeks. The improvement efforts and actions supported by the grant/funding are voluntary and will be coordinated via the RCD and local watershed stewardship groups in Carneros and Sulphur creeks.

c. Others (Board/Staff)

Outcome: Informational. Marc Pandone announced the Napa Sierra Club's Earl Thollander Environmental Award Dinner in Yountville, September 29th, honoring Guy Kay and encouraged everyone on the WICC Board to attend.

5. **UPDATES/REPORTS:**

a. Update on County **General Plan Update** process, community workshops and General Plan **Steering Committee activities** (Board/Staff)

Outcome: Informational. Jeff Reichel notified the Board that the Community Workshops are going well, particularly those in Angwin. Jeff said that it has been difficult for the Steering Committee to get constructive feedback from those in Pope Valley. Diane Dillon mentioned that there will be another session in Pope Valley as well as Berryessa to receive more informative feedback from those communities, and on how the General Plan Update can support their needs and those of the County as a whole.

b. Update on Planning Commission and Resource Conservation District **nominations to serve on WICC Board** (Board/Staff)

Outcome: Informational. Staff mentioned that the Planning Commission will nominate a representative for appointment at their October 4th meeting. The RCD Board has already re-nominated Don Gasser as their representative. Once the Planning Commission has made their nomination, both nominees will go the Board of Supervisors for final appointment to the WICC.

c. Update on the **long-term funding requirements and infrastructure to support** and implement the WICC's **Watershed Monitoring Program** (Staff/SFEI)

Outcome: Informational. Staff presented some background on the project and asked that the item be held-over till next meeting, at which time more information on the program's development will be available. Postponement also allows for more time on the remainder of the items on the agenda.

d. Others (Board/Staff)

Outcome: Informational. Staff attended the Napa-Sonoma Marsh Restoration Group Meeting to hear about mercury monitoring efforts being conducted in the region. A sophisticated study has been conducted (and will continue) looking at the mercury level in fish. Findings from the study indicate levels different (lower in Napa area) than those reported by the RWQCB, as well as a high degree of annual and seasonal variation in levels detected. These findings will help to inform the RWQCB's mercury TMDL efforts in the Bay Area Region.

6. **UPDATE, DISCUSSION AND POSSIBLE DIRECTION TO STAFF REGARDING REGIONAL AND STATE WATER BOARDS POLICY DEVELOPMENTS AND TMDL PLANNING PROCESSES:**

Update, discussion and possible direction to staff regarding Regional Water Quality Control Board and State Water Resources Control Board policy developments and TMDL/Basin Planning processes (Staff)

Outcome: Direction. Staff informed the Board that the Pathogen TMDL approval hearing was re-noticed by the RWQCB due to a noticing/formality requirement oversight by RWQCB staff. On September 13th Supervisor

Dillon (attending on her own behalf), Staff and various members/stakeholders of the community attended the RWQCB hearing on the Sediment TMDL. The RWQCB was attentive to the comments received and thanked those that attended. Many State and Federal agency personnel also attended and commented on the high level of science that went into the TMDL's justification and development. The Rutherford Dust Restoration Project was mentioned often in the RWQCB's staff presentation as a valued project that showcases how voluntary efforts can help address the sediment impairment problem.

Another State policy under development is the Stream and Wetland System Protection Policy (initiated jointly with the North Coast Region). RWQCB staff is coordinating a field trip (El Cerito/Richmond Area) on October 5th to help those interested to better understand what that policy may entail for Bay Area residents and local governments.

The RWQCB has also held several (CEQA) scoping sessions over the past few months to frame-up the development of their Instream Flow Policy.

Diane Dillon expressed concern that there are so many policies under development at the State level (Instream Flow Policy, Stream and Wetland Protection, Sediment TMDL Pathogen TMDL, Putah Creek Ag. Waiver Program [Region 5]) and that many of them will affect Napa County in different ways, and that it is important to realize that our participation is vital. The Board discussed the various policies and the public comments received by the RWQCB. The Board directed that Staff keep them inform about opportunities for input as the policies run their course through the Basin Planning Process.

7. DISCUSSION AND POSSIBLE RECOMMENDATION TO THE BOARD OF SUPERVISORS REGARDING PROPOSED CREEK AND RIVER RESTORATION PROJECTS AND ALLOCATION OF NAPA COUNTY FLOOD AND WATER PROTECTION IMPROVEMENT TAX (MEASURE A) REVENUES:

- a. Napa River Sediment Reduction and Habitat Enhancement Plan - This proposal aims to address water quality, flooding, bank erosion problems and natural resources along the Oakville Cross Rd. to Oak Knoll Ave. reach of the Napa River. The proposed project was recently awarded \$500,000 from the Sate Water Resources Control Board (SWRCB) and is now looking to secure additional funding for the local cost-share/match (Staff/Flood Control Staff)

Outcome: Recommendation. Rick Thomasser, Flood Control and Watershed Operations Manager for Public Works/Flood Control District, introduced the plan and provided background on the proposal and project requirements to receive Measure A funding. Laurel Marcus (CLSI) presented details of the project to the Board and answered questions. The WICC Board recommended approval of \$230,000 in support of the plan.

- b. Milliken Creek Flood Reduction and Creek Stabilization Plan – This proposal is to conduct a flood control and erosion mitigation study of approximately 7,000 feet of Milliken Creek through the Silverado Estates Development (Staff/Flood Control Staff)

Outcome: Recommendation. Again, Rick Thomasser introduced the plan and provided background on the proposal as well as project requirements to receive Measure A funding. Tom Burke (HIS) presented details of the project to the Board and answered questions. The WICC Board recommended approval of \$25,000 in support of the plan. The letter of recommendation (as well as the letter for item 7a above) should include a request that information collected to support the project be available to inform and integrate with other watershed management efforts

8. FUTURE AGENDA ITEMS (Board/Staff)

Outcome: Continued updates on RWQCB policy activities, Report on Permit Coordination efforts, presentation by Phil Brun on City of Napa Reservoir operations, Discussion on the establishment of a Community Foundation Fund for the WICC

9. **NEXT MEETING:**

Regular Board Meeting of October 26, 2006 – 4:00 PM

Hall of Justice Building, 2nd floor Conference Room, 1125 Third Street, Napa

10. **ADJOURNMENT** (Chairman)

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www.napawatersheds.org



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- MINUTES / ACTION SUMMARY -

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Meeting Canceled: The regular meeting of the Watershed Information Center and Conservancy (WICC) Board of Napa County scheduled for October 26, 2006 has been cancelled, as there are no items of business for the WICC Board at this time.

The next meeting of the WICC Board will be held on Thursday, November 16, 2006 at 4:00 pm. This will be a Special Meeting for WICC Board as a result of the Thanksgiving Holiday. A special meeting agenda for this meeting will be announced in early-November.



SAVE THE DATE!!!
Linking Water and Land Use in the San Francisco Bay Area
a Workshop of the Local Government Commission
co-hosted by the Bay Area Water Forum

When: Monday, April 23rd, 2007

Where: Harris State Office Building,
1515 Clay Street, Oakland CA 94612

What: A full-day workshop on ways to link water and land use to advance sustainable development in the San Francisco Bay Area. Join local officials, experts in land use planning and site design, water resource professionals, and natural resource management officials in this full day workshop covering the important topic of integrated water and land use planning. Participants will learn how strategies such as Smart Growth and Low Impact Development can be applied to align development practices and water resource protection, and how to maximize the efficient use of water resources in our growing communities.

Who should attend:

- ◆ Local elected officials and staff
- ◆ Land use and transportation planners
- ◆ Public works engineers
- ◆ Water management professionals
- ◆ Watershed coordinators and members
- ◆ Developers and architects
- ◆ Interested community members
- ◆ State government officials and agency staff



On the agenda:

- ◆ Ahwahnee Water Principles – an integrated strategy linking water and land use
- ◆ Regional case studies illustrating the keys to successful projects and programs
- ◆ Practical tools for successfully implementing water-wise development practices
- ◆ Group dialogue and breakout sessions to discuss current needs, opportunities and future actions



For more information: Clark Anderson at canderson@lgc.org or 916-448-1198, ext 329



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CALIFORNIA WATERSHED NETWORK

Providing a coordinated network of community-based watershed stewardship for California

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6th Annual Watershed Day At The Capital, March 21, 2007

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Overview

Wednesday, March 21, 2007

CalEPA Building

1001 I Street – Byron Sher Auditorium

Sacramento, CA

This year's "Watershed Day at the Capitol" is a great opportunity to learn about the political climate regarding the future of watershed stewardship. It also provides an *interactive* forum for watershed practitioners to meet with elected officials and let them know that it pays to invest in community-based watershed stewardship.

Click the links below for more information:

- [Event Agenda](#)
- [Tips on Meeting with Your Legislators](#)
- [Mentor Program](#)
- [Hotel Accommodations](#)
- [Exhibit Tables](#)

[Attend this Legislative Day \(like no other Legislative Day\) for only \\$25!](#)



Event Organizers



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Draft Agenda

Check back soon for agenda updates!

7:30 – 8:30 **Registration, Networking Breakfast, and Exhibit Displays**

Local watershed partnerships are encouraged to display exhibits and share information. Please contact Ms. Kevin Ward (kcward@ucdavis.edu) if you are interested in displaying information. There is no charge with paid registration.

8:30 – 8:40 **Welcome and Opening Remarks**

- **Mary Lee Knecht**, President, California Watershed Network

8:40 – 9:20 **Future of Watershed Management in California – Perspectives from Senator Christine Kehoe**, Chair, Senate Energy Committee

9:20 – 9:50 **Future of Watershed Management in California – Perspectives from Assembly Member John Laird**, Chair, Assembly Budget Committee

9:50 – 10:10 **Watershed Management under the California Environmental Protection Agency**

- **Linda Adams**, Secretary of Environmental Protection - CalEPA (*invited*)

10:10 – 10:30 **Networking Break**

10:30 – 11:00 **Proposition 84: What's in it for Watersheds?**

- **Joe Caves** – Conservation Strategy Group (*invited*)

11:00 – 12:00 **Panel Discussion: Integrating Watershed Management into Integrated Regional Water Management (Shouldn't that be an oxymoron?!)**

12:00 – 12:30 **Update on Current Legislation**

12:30 – 4:30 **Meet with Legislators**

Need advice or help arranging a meeting with a legislator? Check out our “mentor program” and let us know how we can help!

4:30 – 6:30 **Recovery Session**

Informal Gathering at Pyramid Ale Brewery and Restaurant, 1029 K Street, Sacramento

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Salmonid Restoration Federation's

25th Salmonid Restoration Conference

March 7-10, 2007

Santa Rosa, California



Celebrating a Generation of Salmonid Restoration and Recovery



Co-Sponsors:



Americorps Watershed Stewards Project, California Conservation Corps, California State Coastal Conservancy, Cal Trout, CalTrans, City of Santa Rosa—Creek Stewardship Program, Coastwalk, Department of Fish and Game, Department of Water Resources, Eyak Preservation Council, Fetzer Vineyards, Forest, Soil, and Water, Inc., Goldridge RCD, Humboldt Baykeeper, Marin County RCD, Marin Municipal Water District, Meadowbrook Conservation Associates, Mendocino County RCD, NOAA Restoration Center, Pacific Coast Fish Wildlife Wetlands Restoration Association, Pacific Coast Federation of Fishermen Associations, Pacific Watershed Associates, Philip Williams and Associates, Ltd, Prunuske Chatham, Inc., San Francisco Estuary Institute, Solano County Water Agency, Sonoma County Open Space District, Sonoma County Water Agency, Southern Sonoma County RCD, Sotoyome RCD, Stoecker Ecological Consultants, Sycamore Associates LLC, The Bay Institute, Trees Foundation, Trout Unlimited, US Fish and Wildlife Service, USDA Natural Resources Conservation Service, Winzler and Kelly

training workshops & field tours

Wednesday, March 7

Workshop:

Workshop 1: Fish Passage Barrier Removal Tools

The array of fish barrier removal tools is constantly changing. This workshop will highlight developments in website databases, fish passage design innovations, barrier assessments, and unique implementation tools that can help you in your own projects as well as tour some local fish passage projects and share experience in tailgate discussions.

Workshop Moderators: Leah Mahan, NOAA Restoration Center and Darcy Aston, Program Director, FishNet 4C

The Passage Assessment Database, a Tool for Stream Habitat Connectivity Restoration, Martina Koller, Pacific State Marine Fisheries Commission

Innovations in Approaches to Solving Fish Passage Problems, Mike Love, Mike Love & Associates

Design Methods for Improving Fish Passage and the Costs, Christine Jordan, Assistant Program Manager Five Counties Salmonid Conservation Program, Trinity County Planning Dept.

Horse Creek Damolition—A Case Study of Successful Dam Removal Using Explosives, Matt Stoecker, Ecological Services

Private-Public Partnerships for Fish Barrier Removal: The Experience in Sonoma Creek, Lisa Micheli, Restoration Program Manager Sonoma Ecology Center

House Creek Dam Removal: A Case Study and Lessons Learned, Leah Mahan, NOAA Restoration Center

County Road Crossing Inventories: Priorities for Fish Barrier Removal, Darcy Aston, Program Director, FishNet 4C

Promoting Natural Channel Evolution: a Solution to Fish Passage Issues in Willow Creek, Sonoma County, Lauren Hammack, Geomorphologist, Prunuske Chatham, Inc.

Field Tours:

Sustainable Winegrape Growing Practices Along the Northcoast

Tour leaders: Kent Reeves, East Bay MUD, and Ann Thrupp, Director of CA Sustainable Winegrowing Association

Participants will visit Fetzer and Bonterra vineyards and Preston winery involved in sustainable winegrape growing practices in Sonoma and Mendocino counties to see RCDs and NRCS projects to restore watersheds, and salmonid habitat. After the tour we will have an opportunity to taste wines at the Fetzer Winery in Hopland.

Upper Sonoma Creek Watershed Salmonid Habitat Enhancement Sites: Working within a Hydrologically Diverse System—Successes, Land Owner Objections, Modifications, and New Technical Considerations

Tour leaders: Lisa Micheli, PhD, fluvial geomorphologist; Will Pier, fisheries restoration specialist; Mark Newhouser, riparian vegetation project manager, Sonoma Ecology Center.

This tour will visit 10 salmonid habitat enhancement installation sites, on three creeks that were treated with log and boulder in stream installations, and revegetated with native plants.

In-Stream Restoration and Bioengineering Practices

Tour leaders: Mike Jensen, Prunuske Chatham, Inc., Evan Engber, Bioengineering Associates, Brita Dempsey, Students and Teachers Restoring a Watershed (STRAW) Project, Project of the Bay Institute, Michael Lennox, UC Cooperative Ext.

This full day event will start with a slide show of the project sites and an overview of project considerations and design details. Afterwards we will tour local in-stream restoration and bioengineering projects.

S&F Annual Meeting 5:30-6:30pm

Thursday, March 8

Workshops:

Estuary and Lagoon Restoration Workshop

Coordinators: Leah Mahan and Gillian O'Dougherty, NOAA Restoration Center

This workshop will bring together researchers, planners and restoration practitioners to discuss estuarine restoration at an ecosystem level and as it specifically relates to salmonid restoration and recovery. Speakers will cover a variety of topics from research to planning to implementation and post-project monitoring.

Are Physical Changes in Small Estuaries Limiting Salmon and Steelhead Production in Northern California: Clues and Enhancement Opportunities from Salmon Creek, Lauren Hammock, Prunuske Chatham, Inc.

Restoring Ecosystem Function to the Carmel Lagoon, John McKeon, National Marine Fisheries Service

The Dynamic Dance: Habitat Understanding and Enhancement of the Mattole Estuary?, Drew Barber, Mattole Salmon Group

Limiting Factors for Salmonids in Coastal Estuaries and Lagoons, Steve Cannata, California Department of Fish and Game

Salt River Estuary Enhancement: Restoring the Legendary Eel River a Piece at a Time, Michael Bowen, California Coastal Conservancy

Tidal Marsh Restoration in Humboldt Bay, Darren Mireau, McBain and Trush

Designing, Permitting, and Building Estuary Restoration Projects in Humboldt Bay, California, Don Allan, Redwood Community Action Agency

Working with Landowners, Multiple Partners and Natural Processes to Enhance Off-channel Estuarine Habitat, Smith River, Del Norte County, California, Zachary S. Larson, Smith River Watershed Coordinator and Rocco Fiori, Fiori GeoSciences

continued on page 9

Salmonid Restoration Federation

Salmon Restoration Federation 2007 Conference

Individual Registration Form (PLEASE USE ONE FORM PER PERSON)

• Advanced Registration Must Be Postmarked By February 14, 2007 •

Name: _____ Phone (work): _____
 Address: _____ (home): _____
 _____ email: _____
 Affiliation: _____ Please check box if you are a presenter

Training Workshops & Field Tours

Wednesday, March 7, 2007

	Advance Registration	Late Registration	FEE
1. Fish Passage Barrier Removal Tools Workshop	\$50	\$60	_____
2. Sustainable Winegrape Growing Practices Tour	\$50	\$60	_____
3. Upper Sonoma Creek Watershed Tour	\$50	\$60	_____
4. Instream Restoration and Bioengineering Practices Tour	\$50	\$60	_____

Thursday, March 8, 2007

5. Estuary & Lagoon Restoration Workshop	\$50	\$60	_____
6. Dam Removal and FERC Relicensing Workshop	\$50	\$60	_____
7. Dutchbill Creek Watershed Restoration Project Tour	\$50	\$60	_____
8. Planned Grazing for CA Native Grassland Management Tour	\$50	\$60	_____
9. Headwaters to Mouth: Austin Creek Watershed Tour	\$50	\$60	_____
10. Prince Memorial Greenway short tour (5:15- 6:45pm)	\$20	\$20	_____

* Field tours include a bagged lunch and transportation. Please wear clothing, raingear and shoes appropriate for field tours.

Wild and Scenic Environmental Film Festival

	\$7	\$10	_____
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Conference

March 9-10, 2007 (includes Friday and Saturday lunch and a copy of the Proceedings)

SRF Member (individual membership only)	\$100	\$130	_____
Non-member	\$150	\$180	_____
Student (with photocopy of student ID)	\$70	\$80	_____

Saturday Banquet

(Preference: Salmon____ Chicken ____ Vegetarian____)	\$30	\$30	_____
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Membership

New Renewal

Individual Memberships: \$25 Alevin \$50 Fry \$100 Smolt \$250 Jack \$500 Spawner _____

Payment Total _____

Method of Payment Check Money Order Purchase Order

Purchase Orders will only be accepted for 5 or more people registering. Each registrant will need to fill out an individual form.

VISA MasterCard Credit Card# _____ Exp. Date _____

Approval Signature _____

Mail form and payment to: SRF Conference, PO Box 784 Redway, CA 95560 (Make checks payable to: SRF)
 phone: (707) 923-7501 • fax: (707) 923-3135 • e-mail: srf@calsalmon.org

Please Note: We do not give refunds • Receipts provided upon request. • This form is available at www.calsalmon.org

Dam Removal and FERC Relicensing

Coordinator: California Hydropower Reform Coalition

This workshop will discuss what the FERC relicensing process is, who is involved in the process, restoration opportunities, what the key opportunities for public involvement are, upcoming projects in California, and examples of dam removal through the FERC process.

CHRC—*The FERC Relicensing Process and Dam Removal*, Keith Nakatani, Director, California Hydropower Reform Coalition

Removing Dams on the Mokelumne: A Case Study of the FERC Relicensing Process, Pete Bell, Foothill Conservancy

Stakeholder Conflict in Adaptive Management, Dave Steindorf, CA Stewardship Director, American Whitewater

Visualize the Klamath River Un-Dammed: Using an Interactive Model to Envision Dam Removal, Steve Rothert, Director, California Field Office, American Rivers

Moving the Message: Effective Media and Grassroots Outreach, Craig Tucker, Klamath Campaign Coordinator, Karuk Tribe

Fuel for the Fire: Does Science Provide the Answers Sought by Participants of a License Proceeding Involving Dam Removal?, Eric Ginney, PWA Environmental Hydrology

Trials on Fishways and Other Mandatory Conditions in Hydropower Licenses, Richard Roos-Collins, Director of Legal Services, Natural Heritage Institute

A Perspective on Incentives, Costs, and Process Involved in FERC Relicensing Proceedings—A Cautionary Perspective, Guy Phillips, PhD. Economics

Field Tours:

Rivermouth to Ridgeline Tour of Dutch Bill Creek Watershed Restoration Projects

Tour Coordinator: Brock Dolman, Occidental Arts & Ecology Center

This field tour will focus on the Dutch Bill Watershed, a tributary of the lower Russian River where participants will see applied watershed restoration techniques, from instream structures, fish passage, dam removal, advanced road reshaping, upland headcut & fuel load mitigation, stormwater recharge, wildlife habitat enhancement, and community education and organizing. Dutch Bill is considered to be one of the most critical watersheds for the recovery of endangered coho salmon and steelhead in the Russian River. Additional tour leaders include Gold Ridge RCD staff and restoration specialist Doug Gore of Dragonfly Stream Restoration.

Using Planned Grazing in the Management of Native Grasslands and Riparian Areas

Tour Coordinators: Kent Reeves, California Native Grasslands Association and Stephanie Larson, UC Cooperative Extension Livestock Manager

This tour will visit three sites on Thursday, March 8 to view grazing management practices that benefit native grasslands, riparian areas, and ultimately fish and wildlife. We will visit the Walker Creek and McDonald Ranches in western Marin County. The McDonald Ranch was featured in the California Cattlemen's Association publication *Grazing for Change*. We will then turn our attention to the Point Reyes National Seashore and the range management program that includes livestock and reintroduced tule elk.



The Prince Memorial Greenway provides recreation as well as enhanced habitat for fish and wildlife in downtown Santa Rosa.

photo: courtesy City of Santa Rosa archive

Restoration from Headwaters to Mouth: a Tour of Cooperative Approaches to Restoration in the Austin Creek Watershed

Tour Coordinators: John Green, Pacific Watershed Associates and Sierra Cantor, Fisheries Biologist, Sotoyome, Resource Conservation District, and Bob Coey, Dept. Fish and Game

The Austin Creek watershed harbors some of the best habitat in the Russian River basin, and is home to a number of federally-listed threatened and endangered species, including coho salmon, steelhead trout, and freshwater shrimp. The field tour will visit recently completed restoration projects ranging from upslope sediment reduction and native riparian re-vegetation projects to the “Lower Austin Creek Migration Improvement Project” near the confluence with the Russian River.

Prince Memorial Greenway Tour: The Benefits and Constraints of Urban Creek Restoration

Tour Coordinators: former Santa Rosa City Councilmember Steve Rabinowitsh, Steve Chatham, Principal of Prunuske Chatham, Inc., Supervising Engineer Dave Montague and Environmental Specialists Steve Brady and Alistair Bleifuss of the City of Santa Rosa Public Works Department.

A walking tour of Santa Rosa Creek: Discover how citizens sparked the transformation of a concrete lined channel into an award-winning greenway that provides environmental, social, and economic benefits to the community. Discussion of contaminated soils, flood protection, limited right-of-way, funding, and other obstacles to creek restoration in the urban environment.

Wild and Scenic Environmental Film Festival—Thursday 7-10pm

See back page for info.



A Rainbow Trout

drawing: courtesy Trees Foundation archive

Logistics on page 12

Conference events & sessions

Friday, March 9

Plenary Session 8:30 am to noon

Plenary Moderator: Seth Zuckerman, author of *Salmon Nation Taking Wood Out and Putting it Back in Again: A Generation of Salmonid Restoration in Marin and Sonoma Counties*, Liza Prunuske, Prunuske Chatham, Inc.

Coho Habitat Restoration in Urbanizing Watersheds: Beware Non-point Source Pollution, Nathaniel Scholz, Research Zoologist, Ecotoxicology and Environmental Fish Health Program, Northwest Fisheries Science Center

Climate Change and Watersheds, Freeman House, author of *Totem Salmon*

Climate Change and the Future of California Salmonids, Peter Moyle, Fisheries Biologist, University of California, Davis and author of *Inland Fishes of California*

Friday Afternoon Concurrent Sessions

The Future of California Salmon—Water Quality and Quantity Issues Downstream of Large Reservoirs

Session Chair: Tom Stokely, Trinity County Planning Dept.

Assessing Effects of Groundwater Accretion and Surface Water Flow on Temperatures in the Scott & Shasta Rivers, Bryan McFadin P.E. & Matt St. John, Water Resource Control Engineer, North Coast Water Quality Control Board

Addressing Low Flows in California TMDLs, Samantha K. Olson, Staff Counsel NCRWQCB

Inter-Relationships Between Water Quality/Quantity in Klamath/Trinity/Sacramento Systems, Michael Deas, Ph.D, P.E. Principal, Watercourse Engineering, Inc.

The Tribal Perspective on Water Quality and Quantity, Kevin McKernan, Director Yurok Tribe Environmental Program

Will We Run Out of Cold Water for Salmon During the Next Drought?, Tom Stokely, Trinity County Planning Department

The Scott River Experience with Water Code Section 1707 Water Transfers, Gary Black, Siskiyou County Resource Conservation District and Robert E. Donlan, Ellison, Schneider & Harris

Coho Recovery in California

Session Chair: Dave Lewis, UC Coop Ext.

NOAA Fisheries Coho Recovery Plan, Charlotte Ambrose, National Marin Fisheries Service North-Central California Coast Recovery Coordinator

CDFG Coho Recovery Plan, Manfred Kittle and Joe Pisciotto, California Department of Fish and Game Coho Recovery Planners

Russian River Coho Salmon Captive Broodstock Program, Louise Conrad, Pacific States Marine Fisheries Commission Hatchery Biologist and Mariska Obedzinski UC Cooperative Extension and Sea Grant Program Monitoring Coordinator

2007 Conference Registration Form

Coho Response to Habitat in the Lagunitas and Olema Creek Watersheds, Brannon Ketchum, Point Reyes National Seashore Hydrologist

The Role of Genetics in Coho Recovery, Carlos Garza, NOAA Fisheries Coho Recovery in Santa Cruz and San Mateo Counties, NMFS Santa Cruz Laboratory and Monterey Salmon and Trout Project

Salmonid and Watershed Education

Session Coordinator: Stephanie Lennox, Envirichment

The STRAW Project (Students and Teachers Restoring A Watershed), Brita Dempsey and Laurette Rogers, STRAW of the Bay Institute—Students and Teachers Restoring A Watershed

Creating the Cultural Conditions for Restoring the Lost Fish of the Yuba, Jason Rainey, Executive Director, & Jeff Martinez, RiverTeachers Director, South Yuba River Citizens League

Taking Action—Helping Students Plan and Implement an Environmental Project, Connie O’Henley, Executive Director, Sarah Paddock Education/Outreach Project Manager, Central Coast Salmon Enhancement

Salmon Camp Research Team, Dan Calvert, Program Coordinator, Salmon Camp Research Team

Place Based Education at Salmon Creek School, Laurel Anderson and two middle school students, Salmon Creek School

Evolving Towards Effectiveness: 8 Years of Bioassessment, Bugs and Human Behavior in Santa Rosa, California, Stephanie Lennox, Envirichment

Education and Grassroots Action: Two Integrally Linked Pieces of the Puzzle for Coho Recovery in the Lagunitas Watershed, Marin County, CA, Todd Steiner and Paola Bouley, Salmon Protection and Watershed Network (SPAWN)

Poster Session & Reception 7-10pm

Saturday, March 10

Saturday Morning Concurrent Sessions:

Measuring Watershed Condition and Management Performance

Moderator: Fraser Shilling, UC Davis

Measuring Watershed Condition and Management Performance, Fraser Shilling, Research Scientist, Department of Environmental Science and Policy, University of California, Davis

Aligning Socio-Economic and Ecological Condition Valuation, Rainer Hoenicke, Deputy Director, San Francisco Estuary Institute

Meeting and Measuring Water Quality Objectives, Lauma Jurkevics, Division of Financial Assistance, State Water Resources Control Board

CDFG Salmonid Habitat Indicators and Rating System, Scott Downie, Senior Biologist, Coastal Watershed Planning and Assessment Program, California Department of Fish and Game

Riparian and Aquatic Habitat Trajectory on North Coast Ranches, Michael Lennox, UC Cooperative Extension

Evaluating and Managing for the Effect of a Changing Climate on Stream Temperatures, Peter Miller, Department of Landscape Architecture and Environmental Planning University of California at Berkeley

State Framework to Measure Programmatic Performance, Stefan Lorenzato, Watershed Program, Department of Water Resources

Enhancement, Rehabilitation, and Restoration: What's the Difference and Why Should the Fish Care?

Session Coordinator: Eric Ginney, PWA Environmental Hydrology

An Overview of California Restoration to Date: The Big Picture Via the National River Restoration Science Synthesis (NRRSS), Shannah Anderson, UC Berkeley

Changing Restoration Paradigms: Research from the Russian River, Adina Merenlender, UC Berkeley

Stream Enhancement Projects: The Good, the Bad, and the Ugly, Betty Andrews, PWA Environmental Hydrology

Ecologically Meaningful Restoration and Rehabilitation: Considerations of Floodway Width, Scott McBain, McBain & Trush

Restoring the Lower San Joaquin River: Is it Reasonable?, John Cain, Natural Heritage Institute

Dynamic Geomorphic Processes, Human Impacts, and Floodplain Restoration, Joan Florsheim, UC Davis

Coastal Watershed Planning and Restoration

Session Coordinators: Karen Gaffney, West Coast Watershed, and Paola Bouley, SPAWN

Integrated Watershed Planning in North Coastal California, Karen Gaffney, Restoration Ecologist, West Coast Watershed

A Search for Better Tools to Measure Impairment or Recovery of Salmonid Populations, Charley Dewberry, Ecotrust, Portland

Watershed and Forest Restoration On Private, Rural Lands: New Insights From The Mattole Valley, Chris Larson, Mattole Restoration Council

Highly Impacted Tributaries of the Upper Lagunitas Watershed: Most Important Coho Spawning and Rearing Habitat?, Todd Steiner and Paola Bouley, Salmon Protection and Watershed Network (SPAWN)

Rincon Creek Watershed Plan, Michelle Bates, Tetra Tech, Inc. and Mauricio Gomez, Community Environmental Council

Homeless in the Creek? Do LWD Structures Work to Improve Coho Habitat: A Comparison Between Lagunitas Creek (Marin County) and the Pacific Northwest, Leslie Ferguson, UC Davis and Regional Water Quality Control Board

Coastal Marin Watershed Planning and Ecological Restoration, Brannon Ketcham, Point Reyes National Seashore.

Evaluating S.F. Estuary and South Coast Watersheds for Steelhead Restoration, Gordon Becker, Senior Scientist, Center for Ecosystem Management and Restoration

Saturday Afternoon Concurrent Sessions

Chinook Fisheries Closures: the Economic, Cultural, and Recovery Impacts

Session Coordinator: Zeke Grader, Pacific Coast Federation of Fishermen's Associations (PCFFA)

Responding to Disaster: Fishermen Actions to Address Fish Kill and its Impacts, Zeke Grader, PCFFA

Bringing the Klamath Salmon Back Home, Troy Fletcher, Fisheries Manager, Yurok Tribe

Local and Regional Impacts of Fishery Closures: A Klamath River Example, Guy Phillips, Economist

Native American Cultural Impacts of the Loss of Salmon, Jene McCovey, Yurok Tribal member and traditional storyteller

2006 Pacific Coast Fishing Disasters Ushers in Put-up or Shut-up Time on the Klamath River, Bill Kier, Kier and Associates

Toxic Cyanobacterial Blooms in Copco and Iron Gate Reservoirs, Susan Corum, Karuk Tribe Department of Natural Resources

North Coast Water Diversions: Can Coho Go with the Flow?

Session Coordinator: Rob Dickerson, Trout Unlimited

Invasive Plant Species: Landscape Scale Impacts to Aquatic Habitat, Water Quality & Quantity, Karen Gaffney, West Coast Watershed

Like Water for Coho: Solutions for Managing Water Diversions and Maintaining Instream Flows in Salmon and Steelhead Tributaries, Brian Johnson, Trout Unlimited

Upcoming TMDLs in the Russian River, Brian McFaddin, North Coast Regional Water Quality Control Board

Russian River Watershed Adaptive Management Plan, Dan Smith, USACE Engineering Research and Development Center

North Coast Regional Water Quality Control Boards Proposed Riparian, Floodplains, and Wetland Policy, Dave Hope, NCRWQCB

Stream Flow and Habitat Scaling Along a Spatial Gradient: Do Current Management Policies in Northern Coastal California Offer the Same Protections to Anadromous Salmonids Throughout the Drainage Network?, Mathew Deitch, UC Berkeley

The Mattole Flow Program: Effort and Experiences in the Restoration of Instream Flows, Tasha McKee, Sanctuary Forest

Summer Flow Variability and Juvenile Steelhead Survivorship in Russian River Tributary Streams, Ted Grantham, UC Berkeley

Regional Land Use Planning and Implementation Strategies in Aquatic Conservation

Session Coordinators: Bill Weaver and Danny Hagans, Pacific Watershed Associates

Setting Regional Priorities for Watershed Restoration, David Bayles, Executive Director, Pacific Rivers Council

California Water Law Can Help Salmon—A Short "How To" Guide, Alan Levine, Coast Action Group

Land Use, Water Quality and Stream Habitat—Is a New Strategy Needed in Rural Counties?, Mark Lancaster and Sandra Pèrez, Five Counties Salmonid Conservation Program, Trinity County Natural Resources Division

First Priority Implementation Strategies for Sediment Control in Ecologically Valuable Watersheds, Todd Kraemer, William Weaver and Danny Hagans, Pacific Watershed Associates

Planning and Implementation Strategies to Protect and Restore Aquatic Resources in the North Coast Region, Holly Lundborg, Associate Engineering Geologist, NCRWQCB

Cabaret & Banquet

6:00 pm Wild Salmon Banquet

7:00 Awards & Cabaret

8:30 pm Dance



Salmonid Restoration Federation

ZINFANDEL LANE BRIDGE FISH PASSAGE ASSESSMENT

ST. HELENA – NAPA RIVER RESTORATION PROJECT
NAPA COUNTY, CALIFORNIA



PREPARED FOR:

U. S. ARMY CORPS OF ENGINEERS
SAN FRANCISCO DISTRICT
333 MARKET ST.
SAN FRANCISCO, CA 94105

PROJECT # 105309

DECEMBER, 2006

FINAL REPORT

PREPARED BY:



NAPA COUNTY RESOURCE CONSERVATION DISTRICT
1303 JEFFERSON ST. SUITE 500B
NAPA, CA 94559
WWW.NAPARCD.ORG

CONTACT:

JONATHAN KOEHLER
(707) 252 – 4188 x 109
JONATHAN@NAPARCD.ORG

JONES & STOKES ASSOCIATES
2841 JUNCTION AVE
SAN JOSE, CA 95134
WWW.JONESANDSTOKES.COM

CONTACT:

KEVIN MACKAY
(408) 434 - 2244
KMACKAY@JSANET.COM

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INTRODUCTION

The Zinfandel Lane Bridge is located on the Napa River approximately two miles east of the city of St. Helena in Napa County, California (Figure 1). The concrete bridge apron supporting the structure has been identified as a barrier to fish migration in the Napa River, warranting further study of alternative scenarios to improve conditions. The U. S. Army Corps of Engineers funded the Napa County Resource Conservation District (RCD) in April 2006 to complete this study.

Zinfandel Lane Bridge prevents upstream passage of adult Chinook salmon (*Oncorhynchus tshawytscha*) during tailing limbs of early season flows, which occur after the first few storms of the rainy season. The bridge also hinders migration of adult steelhead (*Oncorhynchus mykiss*) under a range of winter flows. During periods of low baseflow, typically from June through October, the bridge is a complete barrier to all fish movement and prevents upstream and downstream dispersal of juvenile salmonids and other native fishes. Under all conditions, the bridge is a complete barrier to upstream movement by juvenile salmonids and most native fishes due to high velocities and excessively high jump heights.

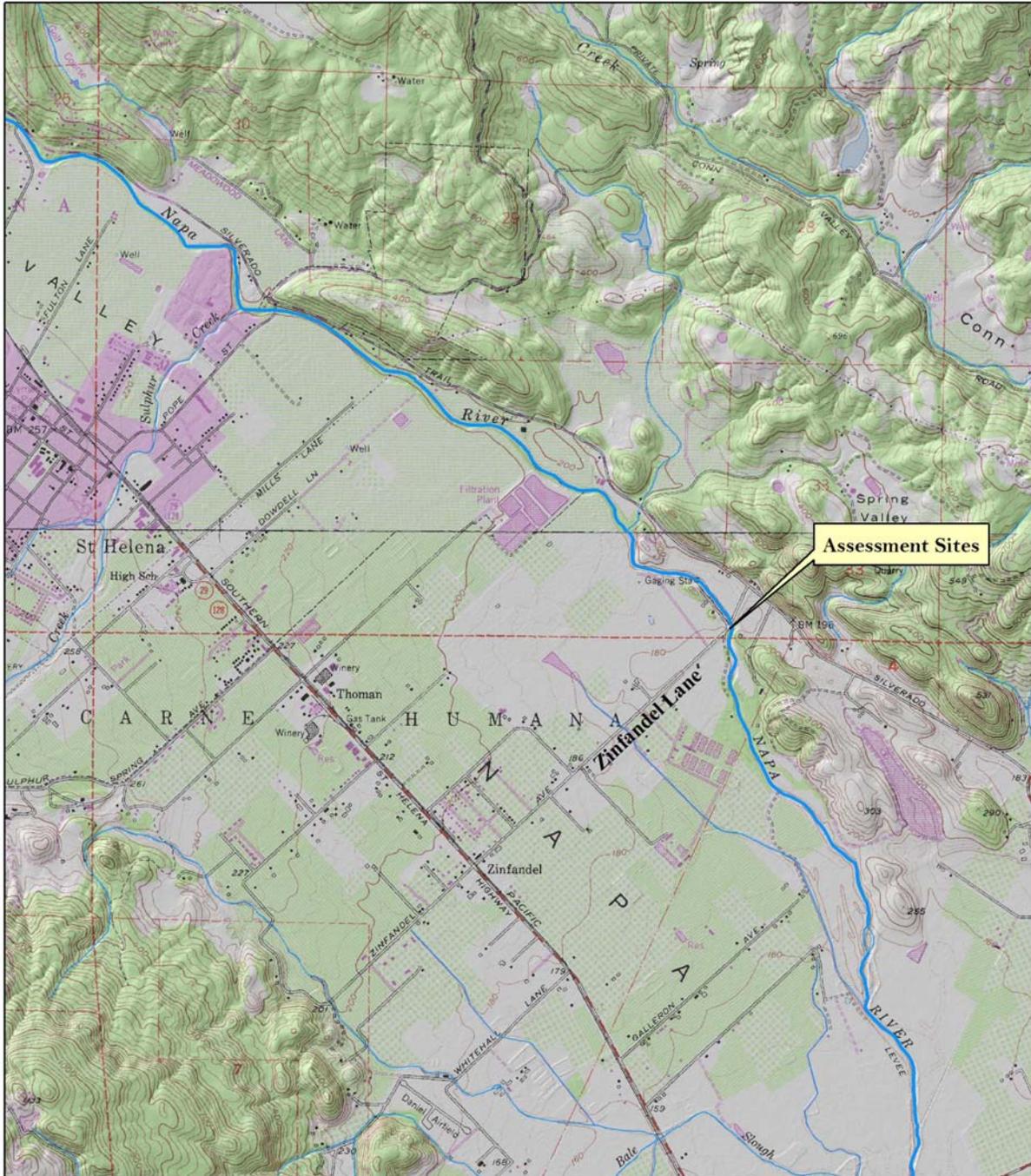
Migration barriers, such as Zinfandel Lane Bridge, exert significant pressure on steelhead and salmon populations by delaying or preventing access to high-quality upstream spawning habitat. The highest quality known habitat for Chinook salmon is located in the mainstem Napa River upstream of Zinfandel Lane, as well as several significant steelhead tributaries including York Creek, Sulphur Creek, Selby Creek, and Ritchie Creek (NCRCD 2005, NCRCD 2002). During low flows the structure requires repeated leap attempts to pass, which causes exhaustion, injury, and even mortality to migrating fish. The physical and physiological stress from such an obstacle can considerably reduce a fish's fitness and chances for survival.

The bridge likely has an adverse impact on steelhead and Chinook smolt outmigration due to shallow sheet flow over the concrete apron during late spring. As flow diminishes in late spring and early summer, it begins to flow under the concrete bridge structure rather than over it, effectively cutting off passage at flows below approximately 15 cubic feet per second (cfs). Smolts that migrate while flows are sufficiently high may become disoriented after plunging through the existing bridge jump pool structure, making them more vulnerable to predatory fish such as Sacramento pikeminnow (*Ptychocheilus grandis*), largemouth bass (*Micropterus salmoides*), and smallmouth bass (*Micropterus dolomieu*) in the pool below.

Approximately 105 feet downstream of the bridge, there is a partial fish migration barrier consisting of a 4.7 foot high bedrock and concrete wall (Figure 2). This structure has a narrow step-pool channel constructed along the east bank to facilitate fish passage. However, adult salmon have a difficult time passing this structure at flows below approximately 20 cfs due to a lack of sufficient depth. Additionally, the constructed step pools are too short in length to accommodate most adult salmon.

In the past five years, significant numbers fall-run Chinook salmon have been documented in the mainstem Napa River and several key tributaries (Koehler 2005, Koehler 2006).

Approximately 60 adult salmon were observed in Sulphur Creek in 2004, and numerous sightings of spawning salmon have been made in other tributaries upstream of Zinfandel Lane. Salmon that are unable to pass the bridge structure must spawn in marginal spawning habitat in the reach immediately downstream. During surveys in 2003 – 2005, the RCD documented unusually high redd densities below the bridge, which likely reduced egg-to-emergence survival and consequently overall salmon production within the Napa River basin.



**Zinfandel Lane Bridge
Fish Passage Assessment**

Source Data
LIDAR Elevation Grid
1:24K Hydrography
USGS 7.5' Quadrangles:
Rutherford, St. Helena

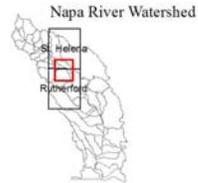
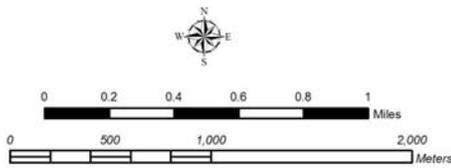


Figure 1. Project location map.



Figure 2. Aerial photo of Zinfandel Lane Bridge over the Napa River.

HYDRAULIC MODELING

Design Flows

Design flows for the Napa River at Zinfandel Lane were computed using the HEC-SSP program of the United States Army Corps of Engineers (USACE), using *station skew* as opposed to *weighted skew*, for the return intervals 1.5, 10 and 20 years. In addition to these design flows, the RCD biologist recommended modeling a flow of 15 ft³/s, considered to be the minimum flow for fish passage. The 10-year and 20-year flows were obtained as estimates of the maximum flow that the channel can contain; modeling in HEC-RAS subsequently showed the 10-year flow to be well over the bank above the bridge, so the 20-year flow was dropped from consideration. The following table shows the design flows used in the model:

<i>Return interval or other description</i>	<i>Q, ft³/s</i>
Desirable minimum flow for fish passage	15
1.5 yr	4220
10 yr	12,400

Field Surveying

The RCD obtained field cross sections from the USACE at approximately 500-ft spacing through the project reach, from a point approximately 1500 ft upstream of the bridge to approximately 800 ft downstream of it. RCD staff surveyed additional cross sections at approximately 250-ft spacing through the central part of the reach and added further cross sections in the immediate vicinity of the bridge. RCD also surveyed the longitudinal profile of the thalweg throughout the project reach (Appendix A).

HEC-RAS model

The RCD developed a HEC-RAS¹ model of the surveyed reach on the basis of the combined USACE/RCD survey. The standard step method was used for the bridge. Cross sections were located at the immediate upstream and downstream faces of the bridge, and the neighboring cross sections on each side of the bridge were located so as to allow appropriate room for expansion or contraction losses at the bridge. Elevated expansion/contraction coefficients were applied at cross sections **2** and **4** (following the numbering convention used in the HEC-RAS manual for bridge cross sections). To test the sensitivity of the model to large expansion and contraction coefficients, RCD ran the model with no elevated coefficients at all, and water levels were reduced 0.35 ft at **2** and approximately 5 ft at **4**. The downstream water level for each design discharge was determined by an iterative procedure that calculated velocity by continuity and by Manning's equation for varying assumed water levels, until the two calculations agreed within five percent²

¹ HEC-RAS is a hydraulic modeling program developed by the USACE Hydrologic Engineering Center (HEC).

² For an assumed water level, the discharge at that cross section was calculated by applying the following two equations:

$$V = Q/A \text{ where } Q \text{ is the design discharge and } A \text{ is the approximate area of flow for the assumed water level}$$

$$V = (1.5/n) R^{2/3} S^{1/2} \text{ where } n \text{ is the overall channel roughness (taken to be 0.06), } R \text{ is the approximate hydraulic radius, and } S \text{ is the slope (taken to be 0.0058). The factor 1.5 is the correction for U.S. customary units.}$$

Field observation led to the following determinations of channel roughness (Manning's n): from the upstream model limit down to the bridge the channel is dominated by one long pool with silt and bedrock outcrops; banks are also fairly smooth bedrock, with willows at toe and more vegetation higher up, e.g. blackberries and occasional oaks; but bank vegetation is fairly sparse throughout. Downstream of the bridge, however, both channel bed and banks are quite different. The bed is cobbles & gravel, there are a number of pronounced riffles with cobbles & gravel, and the banks are heavily vegetated with willow, *Arundo donax*, etc. Both are much rougher than the upstream reach. The values of roughness assigned are shown in this table:

Reach	Manning's n, channel	Manning's n, banks
Upstream of bridge	0.04	0.06
Downstream of bridge	0.05	0.08

These roughness values, while more site specific, are in general consistent with those used in the modeling done for the Rutherford Dust Restoration Team (RDRT) Preliminary Design project. The bank stations were set to correspond roughly to field-identified breaks in roughness.

Validation

The model results were compared with the RDRT model. The RDRT model has considerably simplified cross section geometry, and the concrete sill under the bridge is 8 ft higher than our survey information would indicate. In addition, there are no elevated expansion or contraction coefficients at the bridge in the RDRT model.

Comparison of the results indicated that the RCD's 1.5-year water surface is within a foot of the 1.5-year water surface in the RDRT model, well within the tolerance of the RDRT model validation. However, the 10-year water surface has substantially greater backwater upstream of the bridge (approximately 4 ft) and a correspondingly lower level on the downstream side (2-3 ft), which may be attributed to our use of expansion/contraction coefficients as recommended in the *HEC-RAS Hydraulic Reference Manual* v. 3.1 (November 2002). Because the model developed for this project includes expansion/contraction coefficients and represents the geometry and roughness of the channel in a far more detailed manner than the RDRT model did, RCD considers it a more accurate representation of the actual effects of the bridge under very high flows.

DESIGN CRITERIA

Design criteria were based on the following project objectives

- Provide full upstream passage for adult Chinook salmon and steelhead.
- If feasible, provide juvenile upstream passage for dispersal.
- Incorporate public viewing and educational opportunities.

To achieve these objectives, we used the following design criteria based on NOAA Fisheries and California Department of Fish and Game guidelines.

- Low passage flow = 15 cfs³
- Maximum jump height = 0.5 ft (juvenile), 1 ft (adult)
- Maximum water velocity = 6 ft/sec (adult), 1 ft/sec (juvenile)
- Resting pools sized for adult Chinook salmon (6-8 ft. long)

MEASURES DEVELOPMENT

A range of measures for improving fish passage at the Zinfandel Lane Bridge were identified based on the design criteria described above, and evaluated to inform the alternatives development and evaluation process that will occur during the Corps study. The measures were grouped into 3 general categories based on the characteristics of the study area: 1) modifications to the bridge opening; 2) modifications to the existing downstream step-pool sequence (approximately river station 1025 to 975); and 3) creating a new step-pool sequence (approximately river station 1140 to 975). Several of the measures identified under these categories were dropped from further consideration based on an initial evaluation of feasibility, potential environmental impacts, maintenance requirements, and possible benefits. These measures are described below:

- **Western Bridge Opening.** Although the western bridge apron appears to be slightly lower in elevation than the eastern apron, the eastern opening is more aligned with the upstream and downstream reaches of the main river channel and would provide a better-defined flow path for fish passage (Figure 3 & 4).
- **Fish Ladder.** High storm flows and associated debris and sediment loads could result in extensive maintenance requirements and/or potential damage to a fish ladder, adversely affecting its ability to provide passage.
- **Constructing a Low-Flow Notch in the Existing Apron.** Because of concerns regarding the stability of the existing concrete bridge apron, it was determined that constructing a low-flow channel or notch in the apron was not feasible without additional geotechnical analysis. This measure was not pursued further; however, additional geotechnical analysis could render this measure a viable one.
- **Expanding the “Bathtub.”** Expanding the existing pool or “bathtub” downstream of the western bridge apron would improve the ability of salmonids to reach the apron; however, because of limited water depth over the apron during low-flow periods upstream passage would still be impeded.
- **Roughened Rock Ramps.** Filling the channel immediately downstream (approximately river station 1140 to 980) of the bridge with rock to create a single

³ 15 cfs represents a threshold passage flow when all known downstream impediments are passable for adult salmonids.

roughened ramp, or a series of roughened ramps, to facilitate fish passage would result in significant impacts to aquatic habitat.

- **0.5-foot Hydraulic Drop.** As described above under design criteria, NOAA Fisheries design criterion for juvenile passage prescribes a maximum hydraulic drop of 0.5 feet. Because of the length of the study reach and the gradient, it is not possible to construct a series of weirs or other structures with a 0.5-foot hydraulic drop without substantially compromising pool size and potentially adult passage.



Figure 3. Western bridge opening, looking upstream



Figure 4. Eastern bridge opening, looking upstream.

DESCRIPTION OF PROPOSED MEASURES

The following section provides a brief description of the measures carried forward for further consideration and evaluation. Table 1 provides an overview of construction and permitting issues, and order of magnitude construction costs associated with each measure. Distances described in the measures are relative to the thalweg profile conducted by the RCD (Appendix A).

Modification to the Bridge Opening

Two measures involving modifying the eastern bridge opening were identified as part of this study: 1) constructing a grouted rock channel; and 2) constructing a natural bottom channel. These measures are described below.

Measure 1: Grouted Rock Channel

Measure 1 involves removing the existing concrete apron and constructing a grouted rock channel through the eastern bridge opening to provide fish passage during low flows. The new channel would be approximately 60 feet long and 20 feet wide, and would contain a 2-foot wide low-flow channel (Figure 5). Because of the narrow width of the existing bay, the channel side slopes would be 1.5:1 (Figure 6). The invert of the new channel would be approximately 6 feet below the bridge apron, and would slope approximately 0.5 feet from upstream to downstream (slope of 0.008) (Figure 7). The

existing downstream rock weir, which is approximately 4.5 feet lower in elevation than the bridge apron would backwater the new channel to a depth of approximately 1.5 feet. The new channel would be constructed of reinforced concrete (low-flow channel), and rock grouted with cement. Boulders would also be installed along the low-flow channel to add roughness. Reinforced concrete cut-off walls would be constructed upstream and downstream of the bridge apron to reduce seepage during low-flow conditions. The elevation of the cut-off walls would be determined based on future geotechnical analyses.

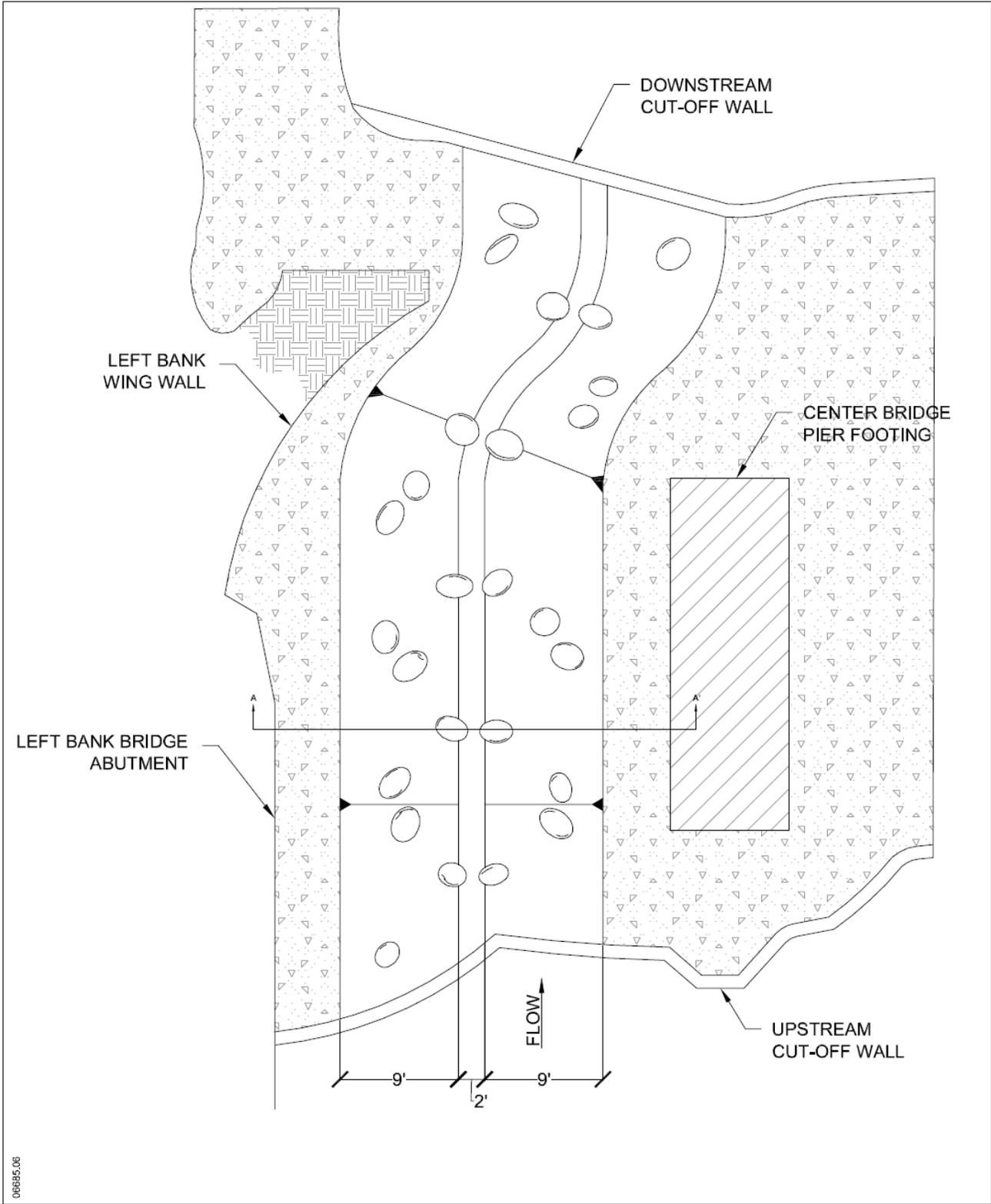


Figure 5. Grouted Rock Channel (Plan View)

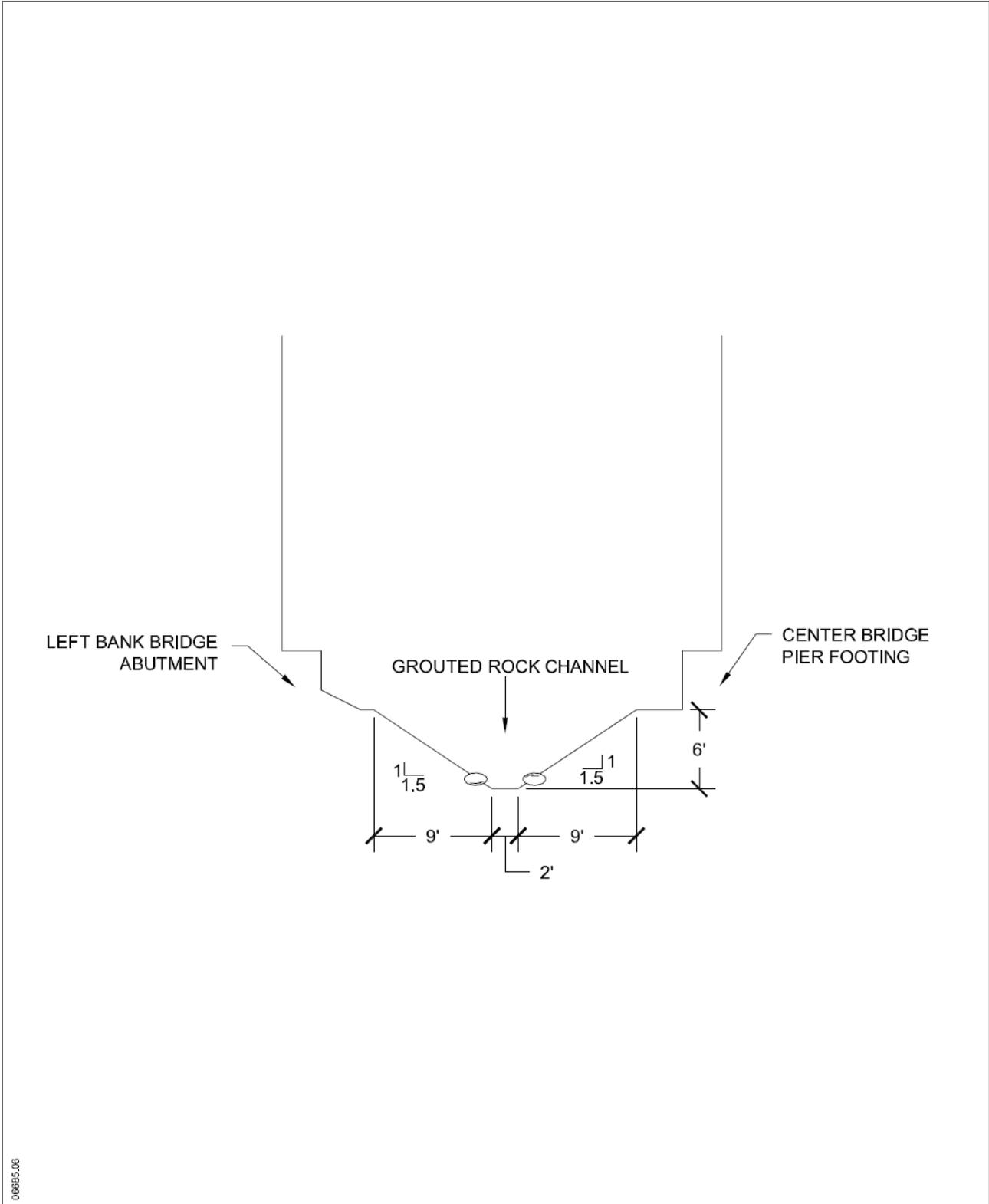


Figure 6. Grouted Rock Channel (Section A-A')

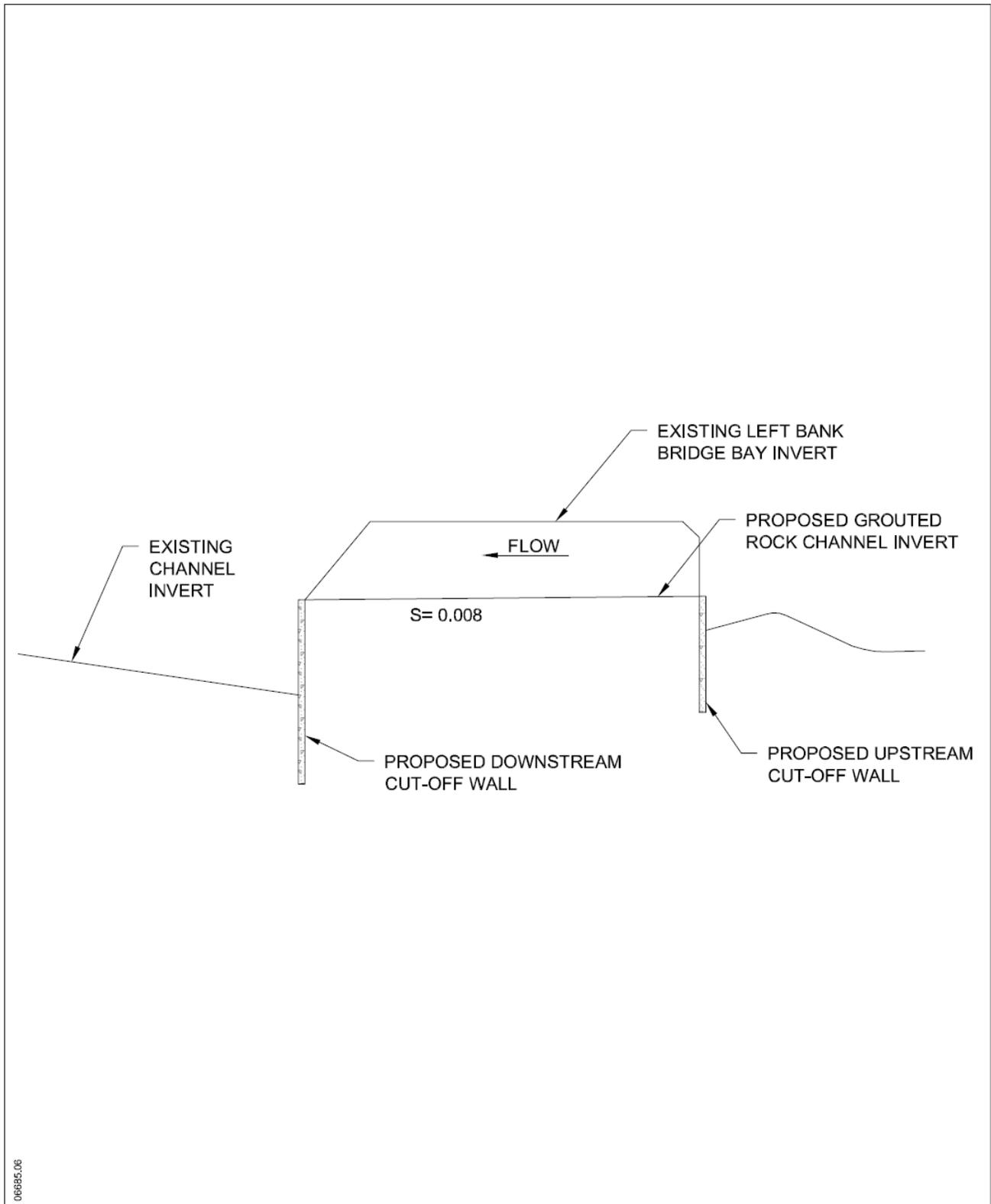


Figure 7. Grouted Rock Channel (Profile)

Measure 2: Natural Bottom Channel

Similar to Measure 1, Measure 2 involves improving upstream passage by removing the existing concrete apron to construct a natural bottom channel through the eastern bridge opening. The new channel would be approximately 60 feet long and 25 feet wide (Figure 8). Large boulders (24- to 36-inch) would be keyed into the channel bottom to stabilize the new invert, and encourage accumulation of cobbles and gravels and development of a natural bottom. The invert elevation of the new channel would be approximately 6 feet below the existing bridge apron to backwater the new channel to a depth of approximately 1.5 feet and ensure that a minimum water depth of 1-foot is maintained upstream of the bridge. Reinforced concrete walls would be constructed on either side of the new channel to protect the bridge foundation, and upstream and downstream of the bridge apron to reduce seepage during low-flow conditions. The elevation of the rock channel invert and the concrete walls would be determined based on future geotechnical and hydraulic analyses.

Modification to the Downstream Step-Pool Sequence.

Two measures involving modifying the downstream step-pool sequence were identified as part of this study: 1) rebuilding the existing step-pool sequence along the east bank; and 2) constructing a new step-pool sequence along the west bank. These measures are described below. Figures 9 and 10 depict the existing downstream step-pool sequence.

Measure 3: Modified Step-Pool Sequence – East Bank

Measure 3 involves rebuilding the existing east bank step-pool sequence to increase the size of the pools to better support Chinook salmon. Five rock weirs (Figure 11) would be constructed along the east bank of the channel to create a series of 1-foot hydraulic drops (Figure 12). The crest of the upstream weir would be set at an elevation of 161 feet to provide a 1-foot drop from the existing grouted rock weir. The crest of the downstream weir would be set at an elevation of 157 feet to provide a 1-foot drop to the downstream bedrock control. The weirs would be constructed using 24- to 36-inch rock and the base of the weir would be keyed into the channel invert (approximately 4 feet) and banks to ensure stability during high flows. Rock size and key depth would be determined based on future hydraulic analyses. The new weirs would also be tied into the existing grouted rock structures along the channel centerline.

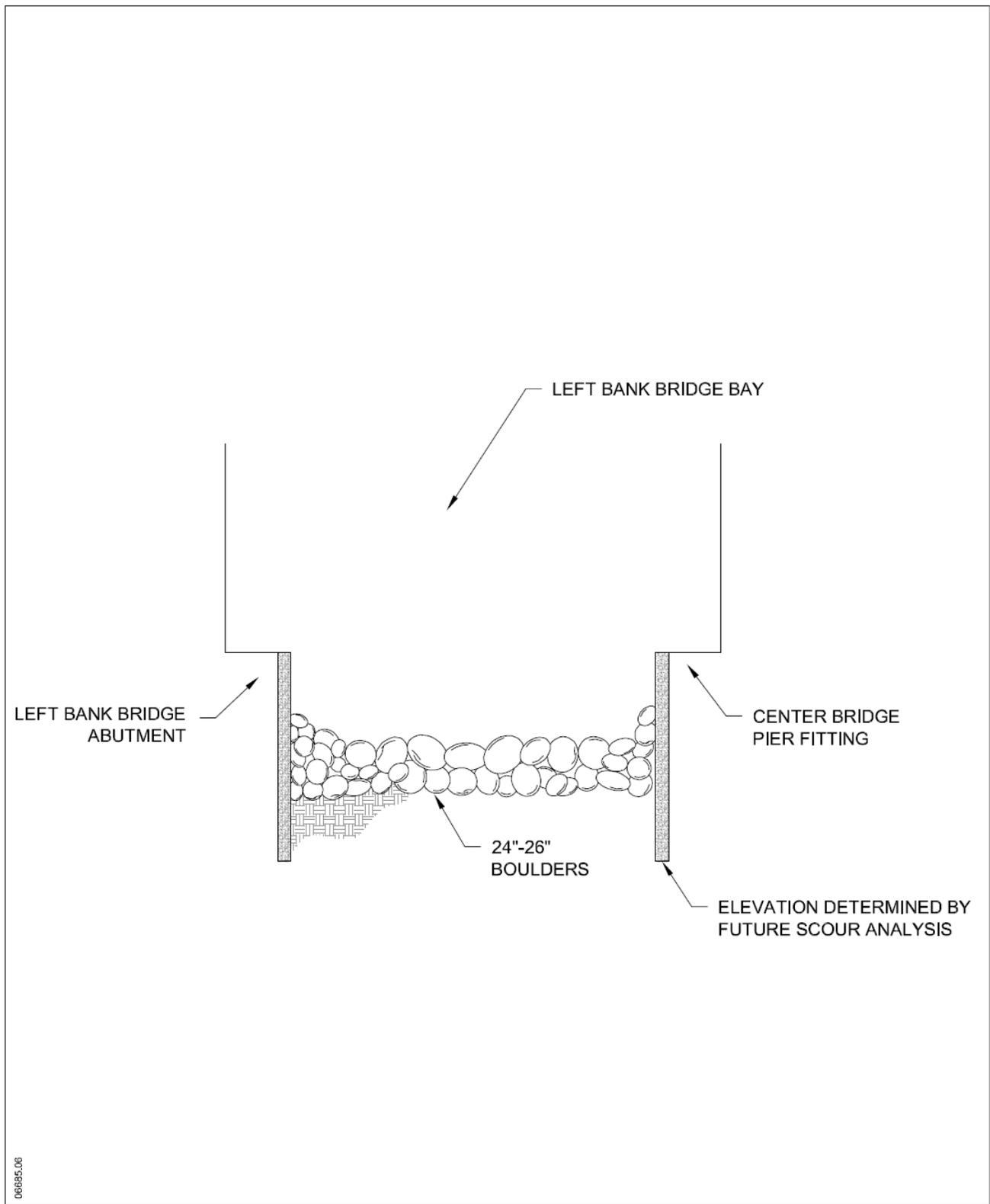


Figure 8. Open Bottom Channel



Figure 9. Downstream step-pool sequence and grouted rock weir, looking upstream.



Figure 10. Existing downstream step-pool sequence, looking downstream.

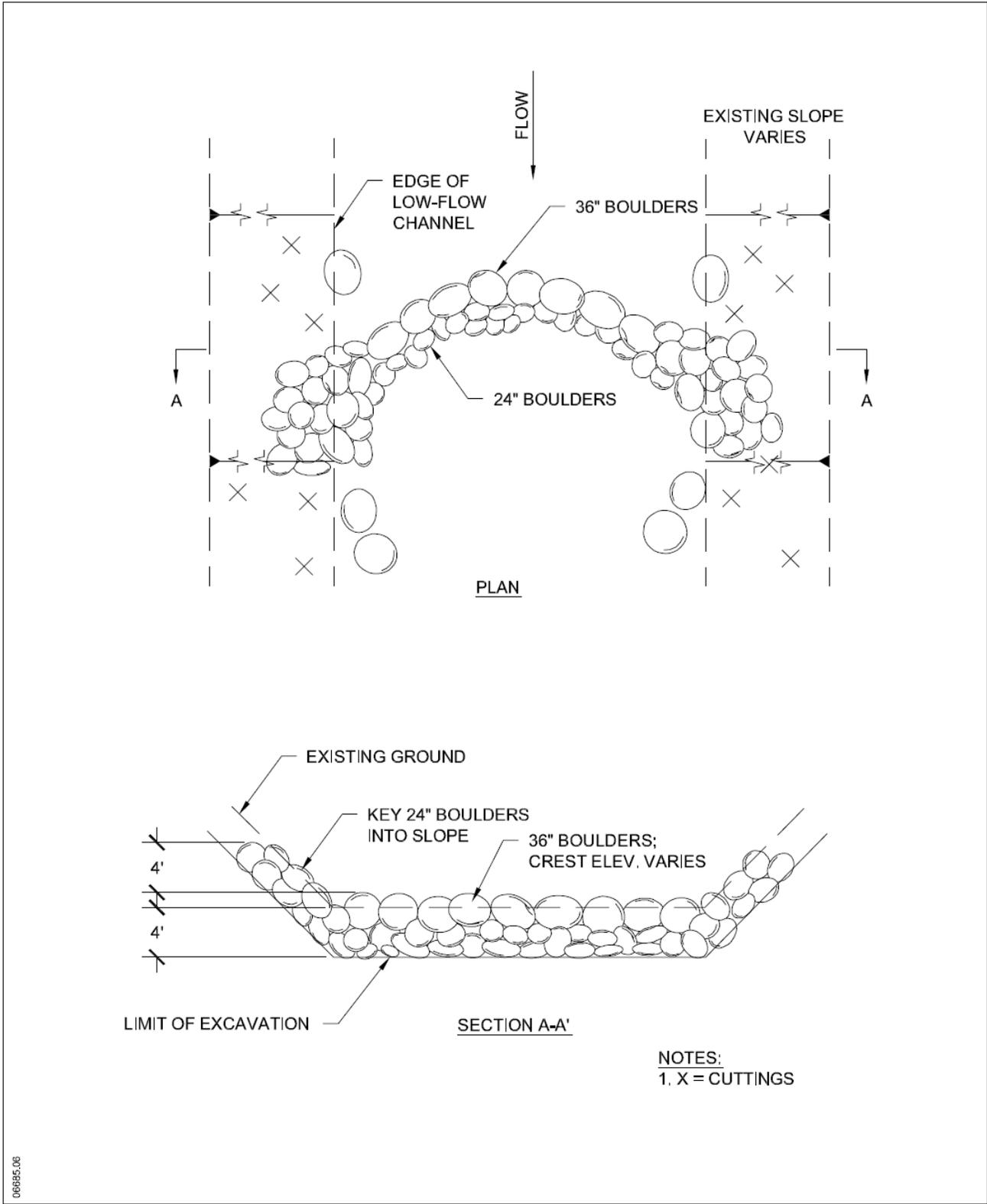


Figure 11. Typical Rock Weir

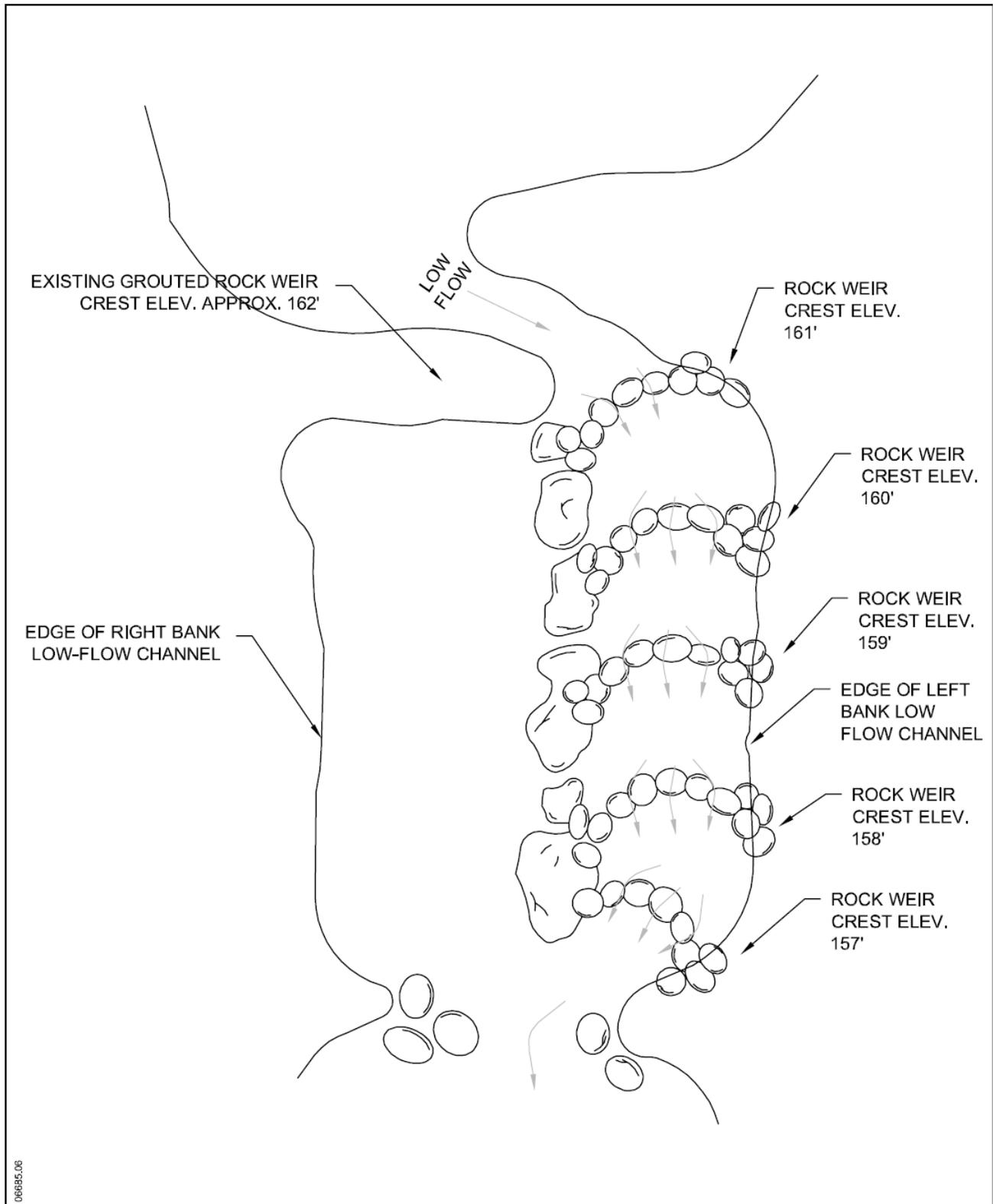


Figure 12. Modified Step-Pool Sequence (East Bank)

Measure 4: Constructed Step-Pool Sequence – West Bank

Measure 4 involves constructing a new step-pool sequence along the west bank of the channel to improve passage. Five rock weirs (Figure 11) would be constructed along the west bank of the channel to create a series of 1-foot hydraulic drops (Figure 13). The crest of the upstream weir would be set at an elevation of 161 feet to provide a 1-foot drop from the existing grouted rock weir. The crest of the downstream weir would be set at an elevation of 157 feet to provide a 1-foot drop to the downstream bedrock control. The weirs would be constructed using 24- to 36-inch rock and the base of the weir would be keyed into the channel invert (approximately 4 feet) and banks to ensure stability during high flows. Rock size and key depth would be determined based on future hydraulic analyses. The new weirs would also be tied into the existing grouted rock structures along the channel centerline.

Measure 5: Creation of a New Downstream Step-Pool Sequence.

Measure 5 involves constructing a new step-pool sequence within the main channel from approximately river station 1140 to 975. Eleven rock weirs (Figure 11) would be constructed within the main channel to create a series of 1-foot hydraulic drops (Figure 14). The crest of the upstream weir would be set at an elevation of 167 feet to backwater the bridge apron to an approximate 1-foot depth. The crest of the downstream weir would be set at an elevation of 157 feet to provide a 1-foot drop to the downstream bedrock control. The weirs would be constructed using 24- to 36-inch rock and the base of the weir would be keyed into the channel invert (approximately 4 feet) and banks to ensure stability during high flows. Rock size and key depth would be determined based on future hydraulic analyses.

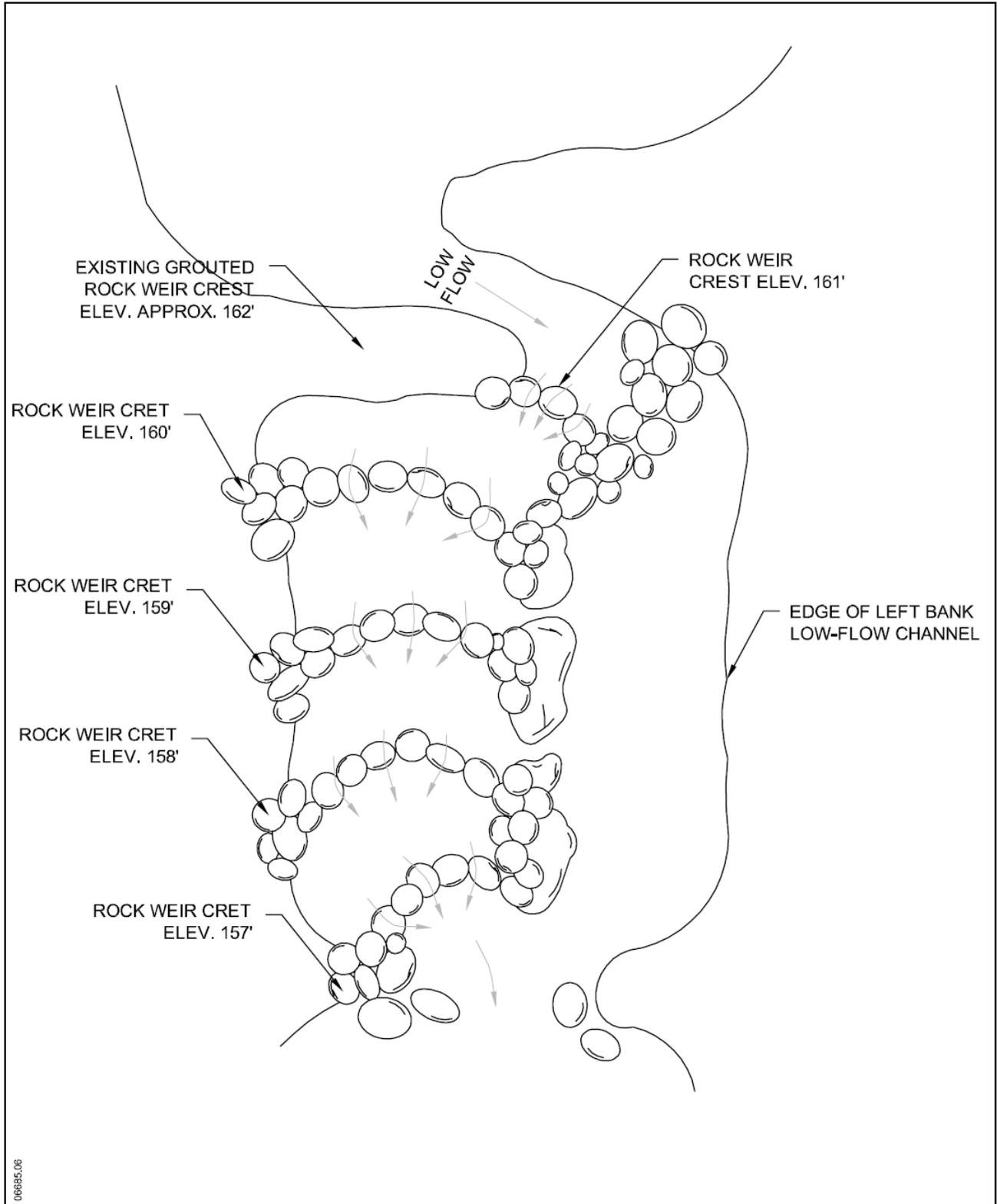


Figure 13. Modified Step-Pool Sequence (West Bank)

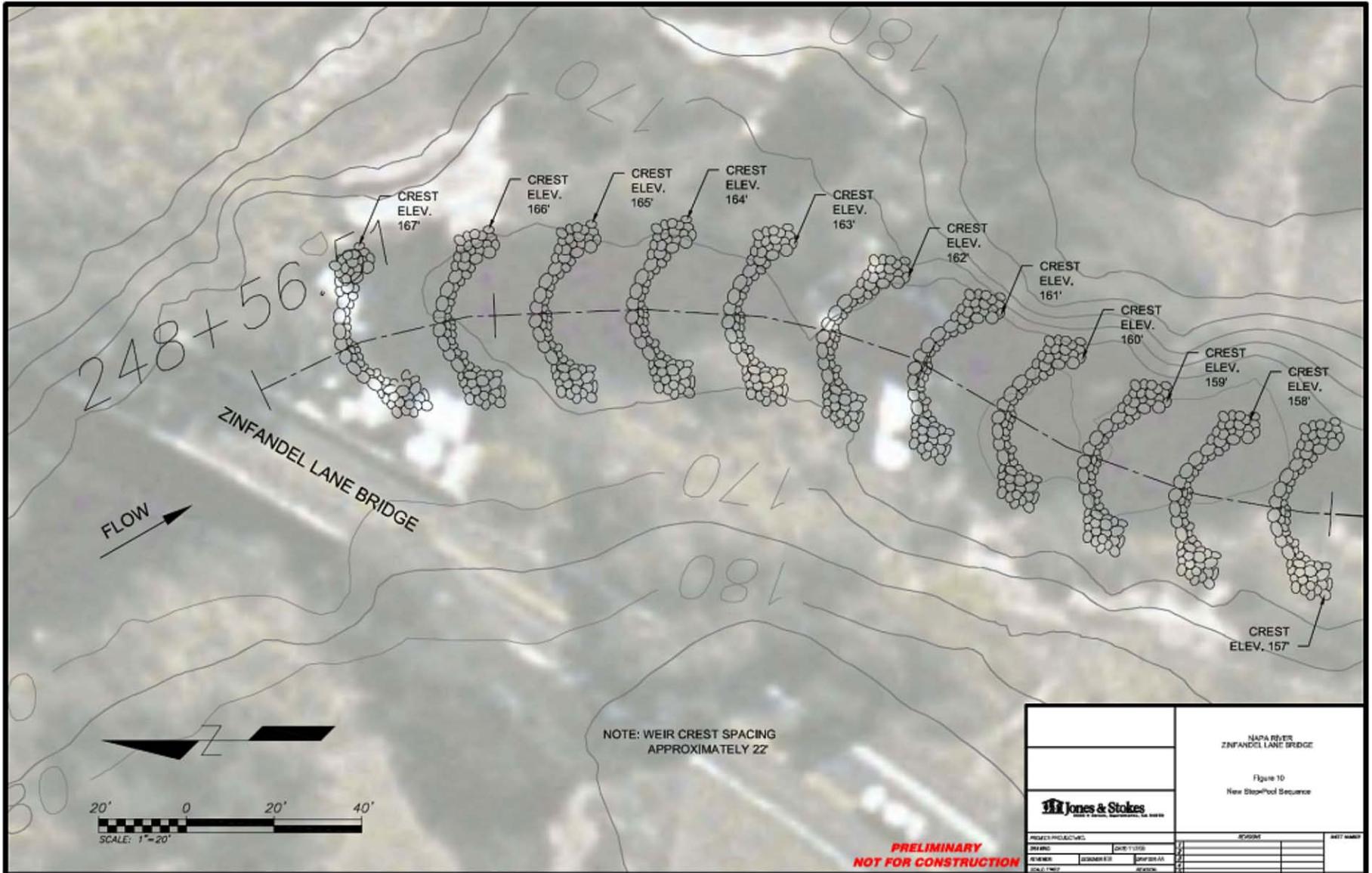


Figure 14. New Step Pool Sequence.

Table 1. Comparison of Measures for Improving Fish Passage at the Zinfandel Lane Bridge.

Measure	Construction Feasibility	Permitting Difficulty	Maintenance Requirements	Order-of Magnitude Construction Cost¹
1. Grouted Rock Channel	Medium – will require diversion of stream flows, dewatering, and construction of ramps and pads for equipment access.	Low to Medium – would not require any permanent channel fill, but would require substantial amounts of temporary fill to provide equipment access to the bridge. May adversely affect CA freshwater shrimp habitat and/or historic context.	Low to Medium – some debris and/or sediment may accumulate in the low-flow channel.	\$160,000
2. Natural Bottom Channel	Medium – will require diversion of stream flows, dewatering, and construction of ramps and pads for equipment access.	Low to Medium – would not require any permanent channel fill, but would require substantial amounts of temporary fill to provide equipment access to the bridge. May adversely affect CA freshwater shrimp habitat and/or historic context.	Low – the larger opening will allow most debris to pass through. Larger sediment particles will accumulate helping to create a natural bottom.	\$220,000
3. Modified Step-Pool Sequence (East Bank)	Low – work area is relatively small but will require diversion of stream flows, dewatering, and construction of ramps and pads for equipment access.	Low – would require only limited temporary and permanent channel fill.	Medium – some debris and/or sediment may accumulate in the step-pools. Higher flows and associated scour may flank the weirs requiring repair.	\$100,000
4. Constructed Step-Pool Sequence (West Bank)	Low – work area is relatively small but will require diversion of stream flows, dewatering, and construction of ramps and pads for equipment access.	Low – would require only limited temporary and permanent channel fill.	Medium – some debris and/or sediment may accumulate in the step-pools. Higher flows and associated scour may flank the weirs requiring repair.	\$110,000
5. New Downstream Step-Pool Sequence	Medium – will require diversion of stream flows, dewatering, and construction of ramps and pads for equipment access.	Medium to High – would require substantial amounts of temporary and permanent channel fill.	Medium – some debris and/or sediment may accumulate in the step-pools. Higher flows and associated scour may flank the weirs requiring repair.	\$220,000

¹ Order of magnitude construction cost estimates were based on materials and labor costs from similar projects constructed in the San Francisco Bay Area. These costs are for comparison purposes only, and would be refined based on future geotechnical analyses and engineering design.

CONCLUSIONS AND RECOMMENDATIONS

As shown in Table 1 the five measures developed as part of this assessment were evaluated and compared based on: construction feasibility, permitting difficulty, and order of magnitude construction costs. The construction approach for all five measures is similar, requiring the construction of an access ramp and pads. However, modification of the downstream step-pool sequence (Measures 3 and 4) would require less material because of the smaller work area and shallower water depth. Measure 5 would require the placement of substantial amounts of fill material to construct the eleven rock weirs necessary to backwater the eastern bridge opening and facilitate passage through the Project reach. The amount of fill required to construct this measure would increase both construction and permitting difficulty. Implementation of Measures 1 and 2 which involve modification to the degraded concrete bridge apron to improve passage would also provide needed protection to the bridge foundation.

Based on the studies conducted as part of this assessment, the biological requirements of the target fish species, and site-specific constraints, it is recommended that a combination of Measures 1 and 4 be carried forward for additional analysis. This combination of measures would create the conditions necessary to provide upstream passage through the Zinfandel Lane Bridge for adult salmonids during most flow conditions. Modification to the bridge apron may also provide additional protection to the bridge foundation and help focus low flows through the opening rather than under the apron. Additionally, placement of fill material within the existing channel would be relatively minor, making the Project easier to permit. However, geotechnical analysis of the bridge foundation will be required to more fully assess the feasibility of Measure 1 and to further define the engineering requirements and construction costs.

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California Department of Fish and Game. 2001. *Culvert Criteria for Fish Passage*.

Koehler, J. 2006. Napa River salmon monitoring project. Spawning year 2005 report. Napa County Resource Conservation District, Napa, California. May.

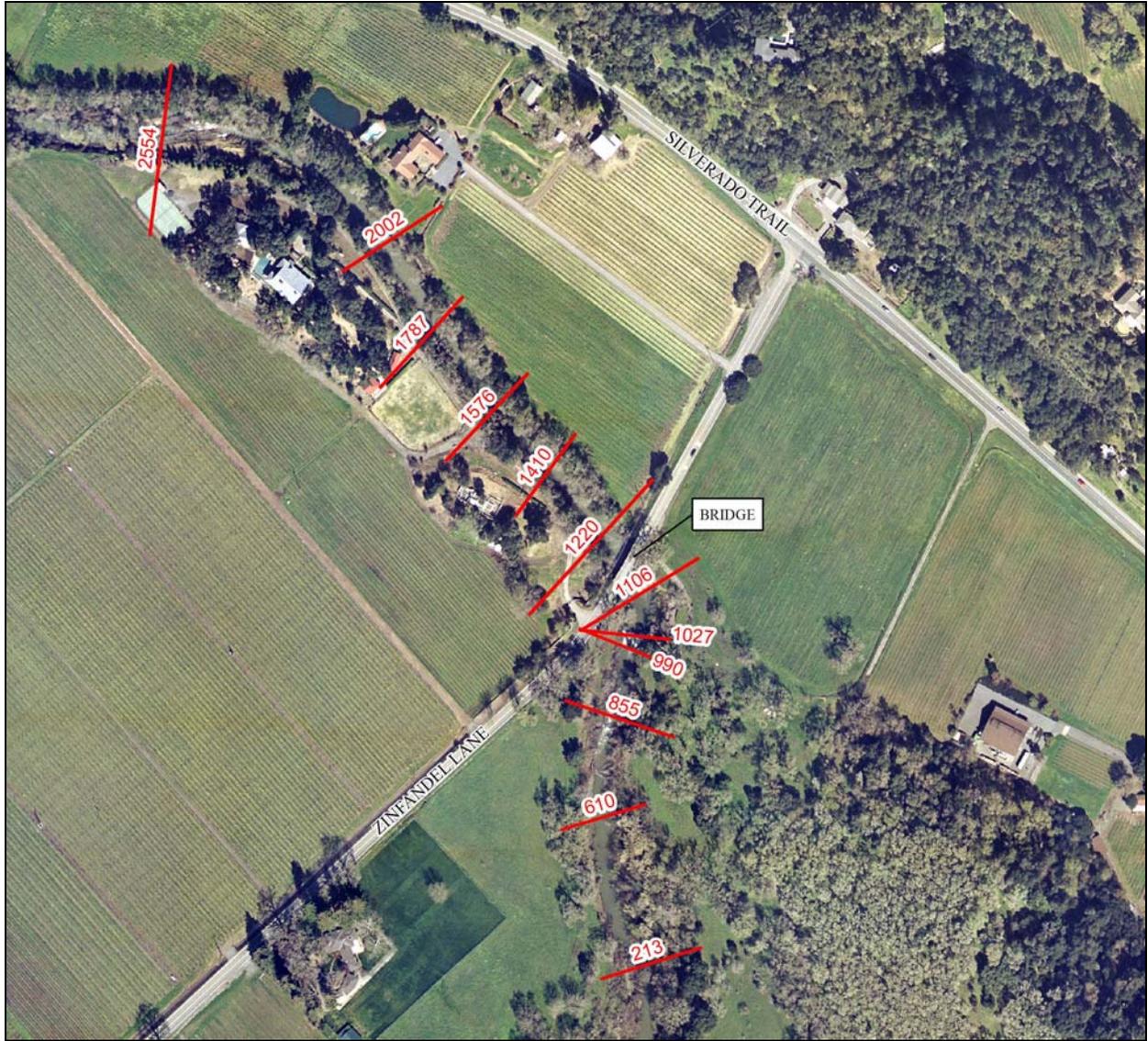
Koehler, J. 2005. The Napa River Fisheries Study, the Rutherford Dust Society Restoration Reach. Napa County Resource Conservation District, Napa, California. January.

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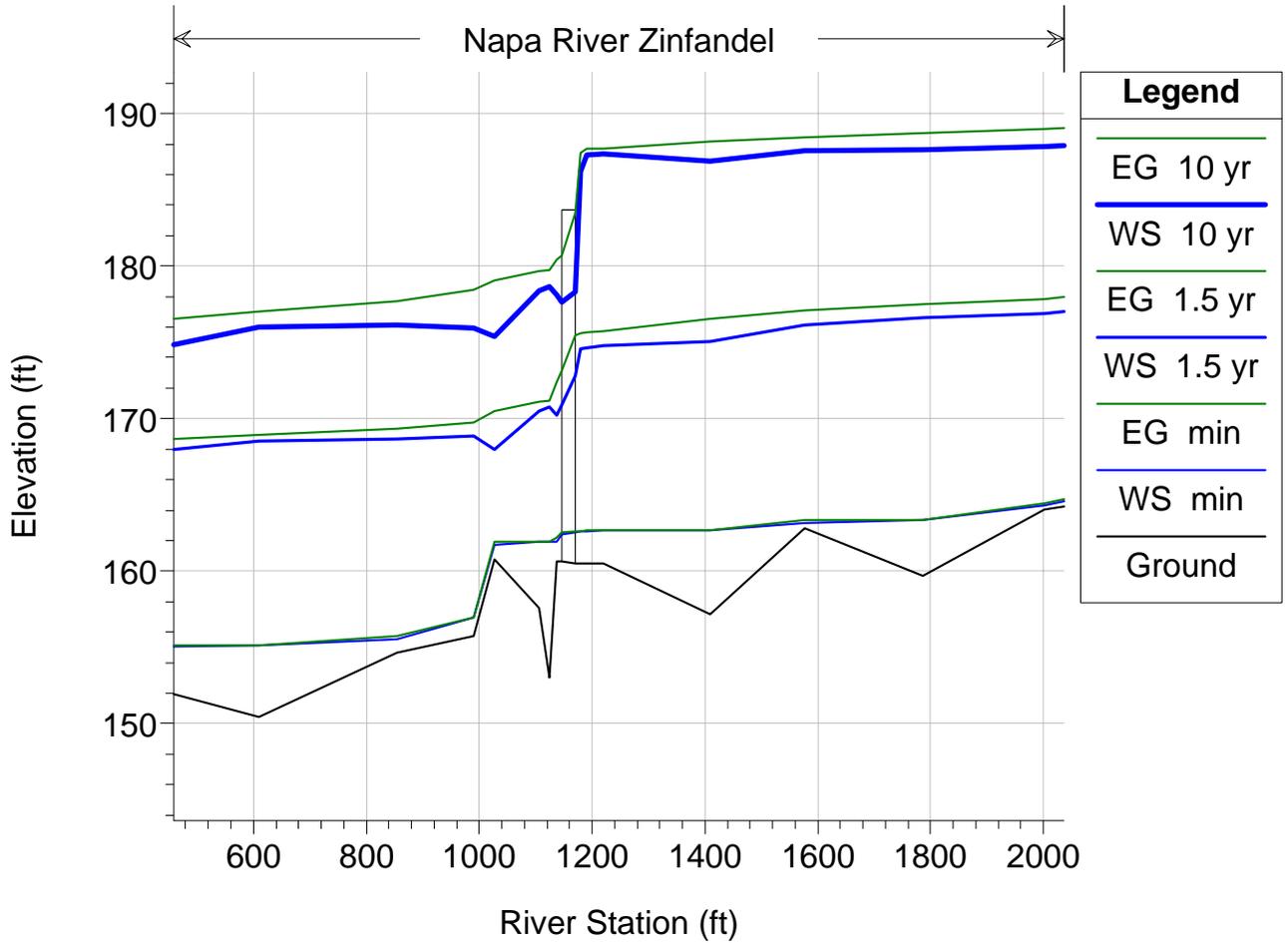
NOAA Fisheries. 2001. *Guidelines for Salmonid Passage at Stream Crossings*.

APPENDIX A: HYDRAULIC MODELING AND SURVEY RESULTS

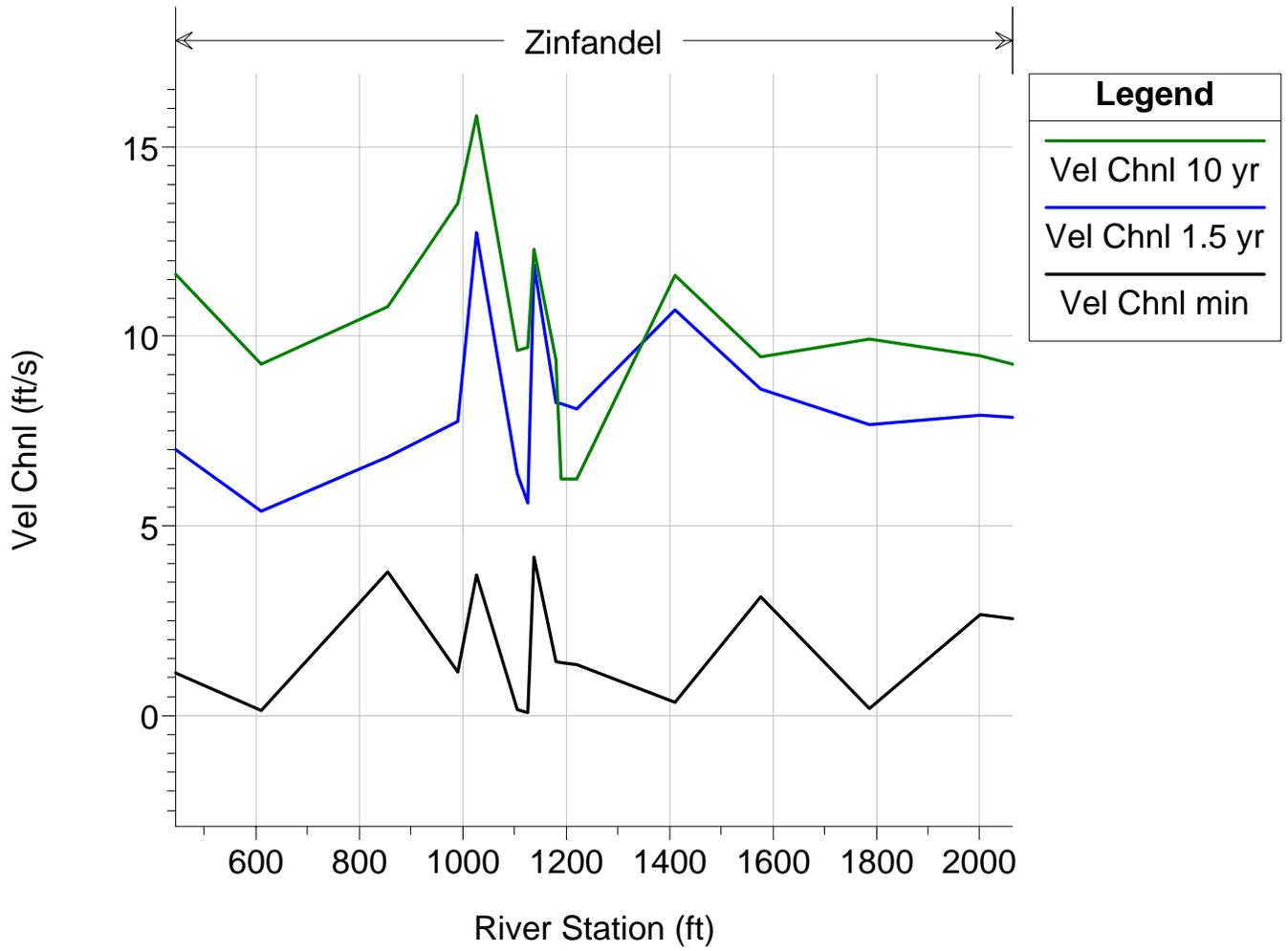


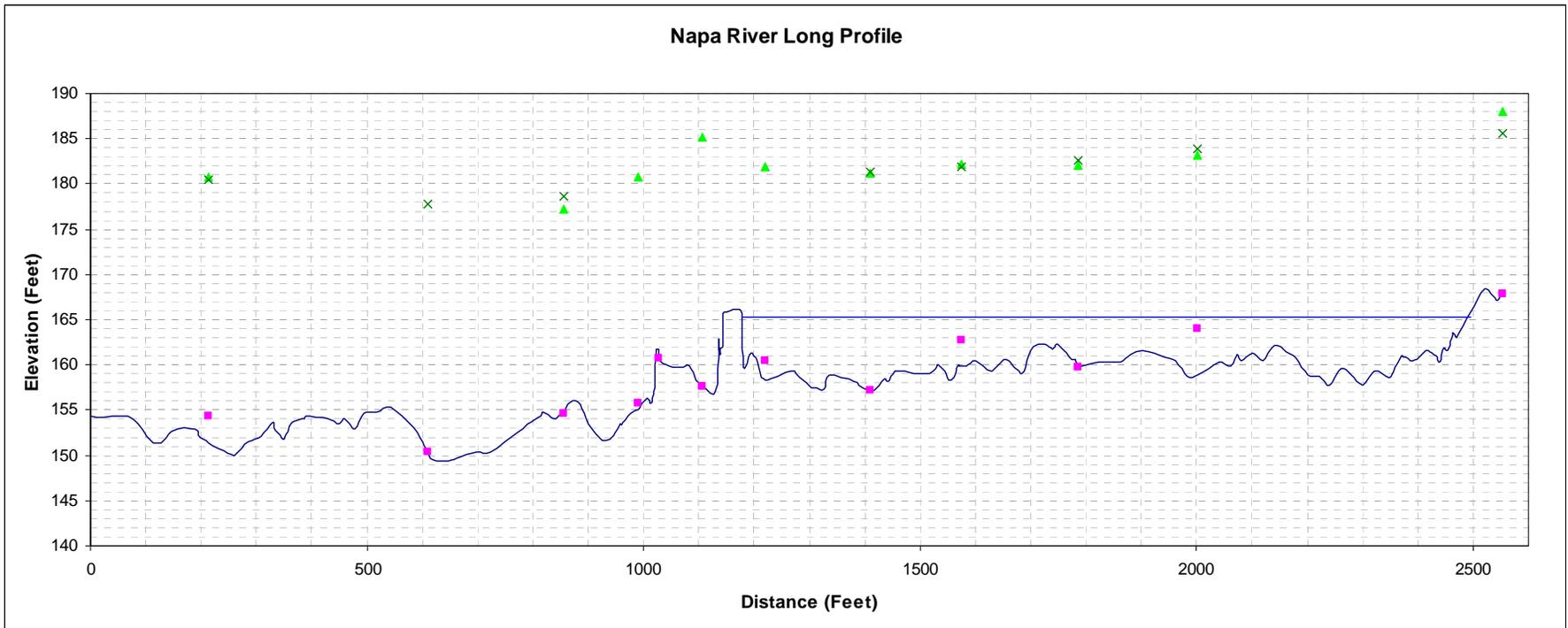
Surveyed cross section locations with approximate river station shown in feet.

Water Surface Elevation Modeling Results



Water Velocity Modeling Results





APPENDIX B: SITE PHOTOS



Zinfandel Lane Bridge facing east (12-20-05)



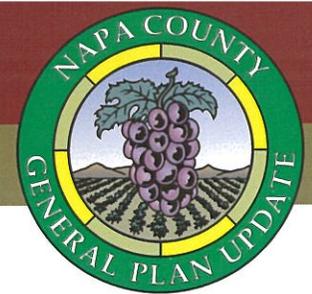
West bay facing upstream (11-16-05)



Chinook salmon leaping into existing jump pool “bathtub” (12-5-05)



Stranded Chinook salmon carcasses on Zinfandel Lane bridge apron (11-19-04)



FACT SHEET

Draft General Plan Update Released for Public Review

About the General Plan Update

The General Plan Update process is an opportunity for the County, including the community, the Board of Supervisors, and County planners, to affirm a vision of the future. The process involves three integrated planning efforts: the Baseline Data Report, the General Plan Update itself, and an Environmental Impact Report [EIR], as described below. When completed in early 2008, the updated General Plan will perpetuate Napa County's long history of agricultural preservation and provide a policy framework for land use and development decisions for the foreseeable future.

The Baseline Data Report (BDR):

Inventoried the County's existing environmental and natural resources.

- Provides computer models that can be used to assess future projects and support the environmental impact report.
- Initially completed and presented for public review in June 2005, the BDR is envisioned as a constantly evolving data set that will be updated as environmental conditions change, and as we learn more about the environment we live in.

The Draft General Plan Update:

- Retains many of the long-standing policies that have served Napa County well, including policies related to agricultural preservation & urban-centered growth.
- Expresses the community's goals for the future and contains updated policies regarding future land uses and conservation of resources.

- The product of many community workshops and meetings of the General Plan Steering Committee, the Draft General Plan Update is a DRAFT, and it can be improved with your input.
- With your help, the final General Plan Update adopted in early 2008 will provide a sound basis for future decision-making.

The Draft Environmental Impact Report:

- Describes the environmental effects that may result from the General Plan Update by assessing a variety of alternatives.
- Recommends "mitigation measures" to reduce or eliminate significant environmental impacts. These measures may ultimately be included as policies in the final General Plan Update.

County Encourages Comments During 60-day Public Review Period

All interested members of the public, community organizations, and public agencies are welcome to provide their comments on the Draft General Plan Update and the Draft EIR. Comments will be accepted in writing during the 60-day public comment period, and there will be three public hearings to allow for oral testimony. Please provide your input in writing or at one of these hearings (there is no need to attend more than one hearing). County staff is also available to speak at your community meeting or neighborhood forum. Please contact us if you are interested.

Date	Wednesday March 21 9:00 a.m.	Wednesday March 28 1:00 p.m.	Wednesday April 4 6:00 p.m.	Mail or email your comments to: Patrick Lowe plowe@napacountygeneralplan.com Napa County Conservation, Development and Planning Department 1195 Third Street, Ste. 210 Napa, CA 94559
Meeting	County Planning Commission / Public Hearing #1	Steering Committee / Public Hearing #2	Public Hearing #3	
Location	County Administration Building, Board Chambers (3rd floor) 1195 Third Street Napa, CA	Napa County Office of Education Boardrooms A, B and C 2121 Imola Avenue Napa, CA	Yountville Community Hall 6516 Yount Street Yountville, CA	

Please check our website, www.napacountygeneralplan.com, to confirm meeting dates and times.

Eight Elements of the General Plan

The California Government Code (Section 65302) requires that a General Plan address seven basic topics: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. In addition to the required topics, State law allows each General Plan to address other locally important issues. Napa County has chosen to address additional topics, and to organize the General Plan in a series of eight chapters or “elements,” as described below:

Agricultural Preservation and Land Use:

Contains draft goals and policies for the preservation of agricultural land and uses, and for the development of land for public and private uses.

Community Character:

Addresses a variety of issues that affect the character of the County, including visual resources and aesthetics, historic and cultural resources, noise, and odors.

Conservation:

Addresses the conservation and protection of water (both in terms of its use and quality), air, energy, and timber and mineral resources. This draft Element also provides goals and policies for solid waste disposal, vineyard development, and global climate change.

Circulation:

Covers all forms of transportation in Napa County, including private vehicles, public and private transit systems, bicycling on roadways or off-street paths or trails, walking, rail, air, and by water on rivers and other waterways.

Economic Development:

Optional element that establishes policies promoting agriculture and addresses tourism and other economic issues.

Housing:

Provides the County’s policies and programs related to providing safe and affordable housing for the County’s current and future residents. (Note: The Housing Element was recently updated and is not part of the current General Plan Update process.)

Recreation and Open Space:

Contains the goals and policies of the County regarding recreation and open space lands and trails. This Element also addresses cultural, interpretive, and educational opportunities that can be provided as part of the open space system.

Safety:

Seeks to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, earthquakes, landslides, and other natural and manmade hazards.

The Draft Environmental Impact Report

The Draft EIR is intended to evaluate the environmental impacts of adoption and implementation of the Napa County General Plan Update. The Draft EIR’s primary purpose is to inform the public and the County’s decision-makers about the effects of implementing the updated General Plan. It will also be used as the starting point for evaluating future public and private projects in the County.

The Draft EIR assesses the potential environmental effects of future growth and policy changes under a variety of planning alternatives and identifies ways in which significant impacts can be reduced or avoided. Required by the California Environmental Quality Act (CEQA), the Draft EIR addresses the following topics:

- **Agricultural Resources:** Will there be impacts on existing agricultural land, including vineyards, timberland, and grazing land?
- **Land Use:** How much future growth could occur in the unincorporated area of the county? How does growth in the unincorporated area relate to planned growth in the cities?
- **Population, Employment, and Housing:** Will there be a balance of housing and commercial development?
- **Hazards and Hazardous Materials:** What is the potential for earthquakes or other seismic activity, flooding, landslides and/or other natural disasters? Will hazardous materials and or waste be introduced?
- **Transportation and Circulation:** How will traffic be affected by future growth in the county and the region?

Continued, Page 5

What's New in the Draft General Plan Update?

When the Board of Supervisors directed staff to update the County's General Plan, they made it clear that the County's long-standing policy of protecting the world-class wine and agriculture industry would remain unchanged. As a result, the Draft General Plan Updates contains many of the same policies as the current General Plan, and has been crafted to preserve the County's rural character. Many policies have been re-written to be clearer, and there are a few new features intended to respond to current conditions and issues. These changes include:

- A new **Summary/Vision** section which provides an overview of the County's general policy direction and describes the Napa County of 2030 which the General Plan seeks to achieve.
- An expanded **Agricultural Preservation and Land Use Element** which elevates the status of the County's pro-agriculture policies.
- Suggested policies specific to **Angwin** and a request for public input on changes to the map of this community.
- Suggested policies specific to **Pope Valley** and **Lake Berryessa**, and a request for public input on whether to include an area for development at the Pope Valley crossroads.
- A new land use designation for the former **Napa Pipe** site and another industrial site nearby. If these areas support housing in the future, will they help the County meet its housing goals and take pressure off of agricultural land and established neighborhoods?
- A suggested **Rural Urban Limit** line around the City of American Canyon, expressing the County's view of that community's logical boundaries.
- The addition of policies calling for a **streamlined vineyard development process** that will function as an incentive for vineyard development that is protective of the county's creeks, streams, and rivers.
- A policy which mirrors the State of California's approach to **global climate change**.
- A new **Community Character Element** which addresses a variety of issues related to the special qualities of Napa County, including views, historic resources, noise, odors, and light and glare.
- A new **Economic Development Element** which expresses the primacy of agriculture and addresses other local economic issues, including tourism and the needs of local employers and workers.
- An expanded **Recreation and Open Space Element** which will guide the new Open Space District, and calls for expanded access to publicly-owned lands and responsible trail construction and management.

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- An expanded **Recreation and Open Space Element** which will guide the new Open Space District, and calls for expanded access to publicly-owned lands and responsible trail construction and management.





What's Next

The Draft General Plan Update and Draft EIR will be released for public review and comment in February 2007. The County encourages public review and comments, which can be made in person or by mail or email. The goal is for citizens to review the documents and suggest changes to ensure that both the General Plan and EIR are complete and accurate.

Final Steps and Implementation

Final EIR

The County will respond to comments received on the Draft EIR and would like to have a complete Environmental Impact Report ready for certification by late 2007. ("Certification" is the County's statement that the EIR provides complete and accurate information

and analysis, and reflects the County's independent judgment.)

Adoption of the Updated General Plan

The General Plan Steering Committee will review all comments received on the Draft General Plan Update and use those comments to help develop a final product for consideration by the County Planning Commission and the Board of Supervisors. The County's goal is to have an Updated General Plan adopted by early 2008. If the new General Plan includes changes to the Land Use Map that would require approval by voters under Napa County's Measure J, a ballot measure would be prepared for the next general election.

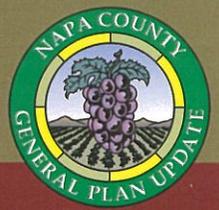
Implementation

The General Plan will be implemented in a variety of ways, including the day-to-day review of public and private development projects by the County's planning and building departments. All of the actions items identified in the General Plan Update will be compiled into an Implementation section at the end of the Plan, which will also discuss ways in which the Plan can be monitored and adjusted over time.

How does public input to the process differ between the General Plan Update and EIR?

Public input is considered vital and incorporated into the General Plan Update throughout its development. Since an EIR is based on factual information, public comment is limited to the document's thoroughness and accuracy. This differs from public commenting of the General Plan Update, from which goals, objectives, policies and implementation measures are developed.





The Draft EIR (continued)

- Can the County address future traffic congestion and maintain its rural character?
- **Noise:** Will there be substantial increases in noise levels from increased traffic or other sources?
 - **Air Quality:** Will there be negative impacts on air quality?
 - **Hydrology and Water Quality:** Will there be an adequate supply of water? Will there be negative impacts on existing waterways including the Napa River? How can the County ensure that future development—including new vineyards—takes place in a way that protects and enhances fish and wildlife habitat?
 - **Geology and Soils:** How will soils and geology affect or be affected by future growth?
 - **Biological Resources & Fisheries:** How will wildlife and fish habitats, and/or endangered species be affected?
 - **Cultural and Paleontological Resources:** Will there be negative impacts on known or unknown archaeological sites or paleontological resources?
 - **Historic Resources:** What qualifies as a significant historical resource and will there be negative impacts on these resources?
 - **Public Services and Utilities:** Will adequate public services exist?
 - **Visual Resources:** Will the county's important visual resources be affected by future growth and proposed changes in policy?
 - **Growth Inducement:** Will the updated General Plan create an environment in which growth that could not occur now would take place?

What is Mitigation?

Mitigation refers to ways in which a potential impact can be reduced or avoided. The General Plan is intended to be “self-mitigating,” in that it includes policies and actions that address the effects of future growth. Mitigation measures included in the Draft EIR may ultimately be considered for inclusion as policies in the final General Plan Update.

A Brief History of the General Plan Update

2004-2005: Preparation of the Baseline Data Report. The Baseline Data Report provides current information on environmental and resource conditions in the county. The BDR supplies baseline data to help prepare the General Plan Update, provide data and analytic tools for evaluating alternatives, and support the EIR process for the General Plan Update. The BDR was initially completed in June 2005, and will be updated on an ongoing basis to keep it up to date.

January-April 2005: Public Workshops. An early “visioning” process was a first step in the General Plan Update process and was initiated by the County to solicit ideas from the community. A series of seven well-attended community workshops were held throughout the county between January and April 2005.

July 2005: Steering Committee Formed. The General Plan Update Steering Committee is a 21-person panel appointed by the Napa County Board of Supervisors to assist County staff during the update process. These individuals, representing a broad cross-section of interests throughout the County, examine the various issues and provide direction on the General Plan Update. The Steering Committee has met monthly since its formation in July 2005. All meetings of the Steering Committee are open to the public, and all interested persons are invited to attend the meetings.

August-September 2005: Notice of Preparation (NOP) of the EIR and Public Meetings. The NOP informs residents, public agencies and community groups that the County will be preparing an EIR, and asks for input. In November 2005, the County held three public meetings to receive input. One of the meetings focused on receiving comments from public agencies. Public comments on the NOP were also welcomed via mail and email. All comments received were considered during preparation of the Draft EIR.

2006: Steering Committee and Public Meetings. Public meetings encourage citizens to work as a group to identify issues, brainstorm ideas, be involved in the planning process and help shape the future of Napa County. Throughout 2006, the County hosted monthly public meetings, each month focusing on a different element or topic of the General Plan Update: Agricultural Preservation and Land Use; Circulation; Community Character; Conservation; Economic Development; Housing; Recreation and Open Space; and Safety. The County also conducted targeted interviews with members of the County's Hispanic community to address and receive comments on their concerns.

**NOTICE OF AVAILABILITY
ON FEBRUARY 16, 2007 OF A DRAFT ENVIRONMENTAL IMPACT REPORT
AND COMMENCEMENT OF THE PUBLIC REVIEW PERIOD**

NOTICE IS HEREBY GIVEN that a Draft Environmental Impact Report has been completed and is available for public review on the following project:

LEAD AGENCY: Napa County Conservation, Development and Planning Department
PROJECT NAME: Napa County General Plan Update
STATE CLEARINGHOUSE # 2005102088

CEQA STATUS: Pursuant to Section 15087 of the State of California Environmental Quality Act (CEQA) Guidelines, the Draft EIR has been prepared. A Notice of Completion was filed with the State Clearinghouse on February 16, 2007. The proposed project could result in significant impacts, unless suitable mitigation measures are implemented. In the areas of: Agricultural Resources, Land Use, Transportation, Biological Resources, Fisheries, Noise, Air Quality, Cultural Resources, Geology, Hazards, Hydrology, Public Services and Utilities and Visual Resources.

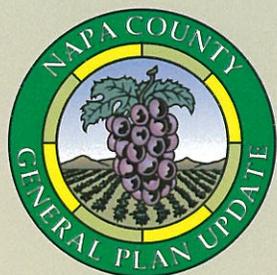
PROJECT DESCRIPTION: The proposed project is the adoption and implementation of an updated Napa County General Plan (i.e., technically a General Plan amendment). The last comprehensive update of the Napa County General Plan was in 1983. The General Plan update will allow the community to establish its long-term vision for the future (to the year 2030). The General Plan includes the seven elements required by State law: Agricultural Preservation and Land Use, Circulation, Housing, Recreation and Open Space, Conservation, Noise (included in Community Character) and Safety. In addition to these seven required elements, an optional element called "Economic Development" has been included.

PUBLIC REVIEW PERIOD: Written comments on the Draft EIR will be accepted from Friday, February 16, 2007 until 4:45 p.m. on Tuesday, April 17, 2007 (60 days), at the following address: Napa County Department of Conservation, Development and Planning, 1195 Third Street, Suite 210, Napa, CA 94559, Attn: R. Patrick Lowe, Deputy Director, or via e-mail: plowe@napacountygeneralplan.com.

PUBLIC review and written comments on the draft document are invited. Beginning on February 16, 2007, the Draft EIR is available for viewing at the Napa County Conservation, Development and Planning Department at the address above; at county libraries; and on-line at www.napacountygeneralplan.com. Copies are available for purchase on CD-ROM or in hard copy from: Kinko's, 702 Lincoln Avenue, Napa, CA 94558-5173

PUBLIC MEETING: The public is invited to attend and provide oral comment at the following public meetings:

- 1) Wednesday, March 21, 9:00 a.m. at the County Administration Building
- 2) Wednesday, March 28, 1:00 p.m. at the Napa County Office of Education
- 3) Wednesday, April 4, 6:00 p.m. at the Yountville Community Hall



Contact Information

Patrick Lowe
Deputy Planning Director
plowe@napacountygeneralplan.com

Hillary Gitelman
Napa County Planning Director
hgitelman@napacountygeneralplan.com

Howard Siegel
Community Partnership Manager
hsiegel@napacountygeneralplan.com

Napa County Conservation, Development and Planning Department
1195 Third Street, Ste. 210
Napa, CA 94559

www.napacountygeneralplan.com
The website includes instructions for how to be added to the mailing list for future updates.

**Highlights from Regional Water Quality Control Board's (RWQCB)
Stream and Wetland System Protection Policy
Public workshop, February 6, 2007**

The policy would extend the RWQCB's reach upstream into wetlands, riparian areas, and watersheds.

Current RWQCB focus has not been effective in preventing the continued degradation of water quality, so RWQCB is stressing a need to be able to regulate additional potential sources of water quality problems.

The RWQCB proposes to add 2 new "beneficial uses" that will be legally protected (flood peak attenuation and storage, and water quality enhancement), and 6 new water quality objectives. The policy will cover riparian areas, wetlands, floodplains, stream habitat quality, and hydrological condition.

Most attendees of the February workshop were local government agencies, many worried about the implementation and cost burden of new regulations mandated by the State. In addition, several environmental groups attended, applauding the policy's direction.

If the new policy is approved, the Regional Water Boards would likely prioritize grants, loans, and even permit fees toward local governments that adopt multi-benefit watershed plans, adopt the Ahwahnee Principles related to water conservation use and planning, adopt low-impact development rules, smart growth, or stream protection ordinances with riparian buffers. Doing so is an effort by the RWQCB to offer incentives along with regulation.

The RWQCB will define the "riparian zone" and associated development setbacks. The outcome will not be a one size fits all approach, but rather differently sized setbacks based on adjacent land use (urban vs rural) and location within the watershed (headwaters vs floodplain).

A lawyer from the building industry said this should be done on a state level, that it is about land use and not water quality. The state director of Audubon said it is far overdue and necessary to protect the state's water supply and quality of life. Fish & Game said that their millions spent on restoration have only been band-aids, and that it takes better regulation to protect quality of life and environment.

More at can be found at:

www.waterboards.ca.gov/sanfranciscobay/streamandwetlands.htm



Stream and Wetlands System Protection Policy

Public Workshop

San Francisco Bay Regional Water Quality Control Board

Feb. 6, 2007

Meeting Outline

- Policy Need
- Scientific Concepts
- Proposed Amendment Scope
- Public Comments

The Stream Policy will...

- More explicitly acknowledge connection between physical integrity of stream and wetland systems and water quality
- Expand consideration of cumulative effects

The Stream Policy will...

- Improve success of wetland and riparian area mitigation
- Provide more consistent and predictable permitting outcomes
- Advance policy to reflect best practices and science

Stream Policy Drivers

- Regional Water Board identified policy as high priority in 2004 Basin Plan Triennial Review
- U.S. EPA grant supporting development of policy in North Coast and San Francisco Bay Regions

The Stream and Wetlands System



WETLANDS



FLOODPLAINS



STREAM CHANNELS



RIPARIAN AREAS



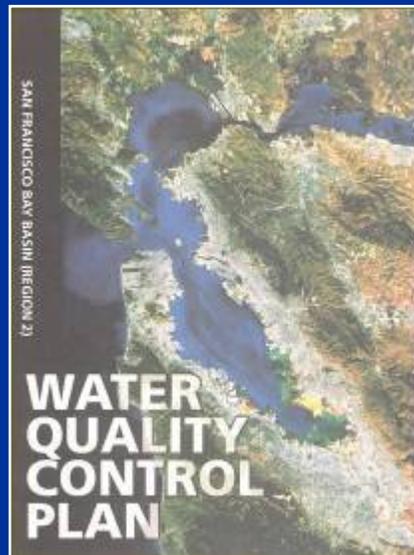
Stream and Wetlands System Functions

- Water Filtration
- Sediment Transport and Storage
- Temperature and Microclimate Control
- Streambank Stability
- Fish and Wildlife Habitat
- Flood Peak Attenuation
- Groundwater Recharge
- Large Woody Debris Input
- Energy and Nutrient Cycling



Proposed Basin Plan Amendment

- Establish new *beneficial uses*
- Establish new *water quality objectives*
- Include *implementation plan* with specific actions to meet new water quality standards



Beneficial Use

Flood Water Storage / Flood Peak Attenuation

Waterbodies that receive and store natural surface drainage to reduce the flood peak downstream



Beneficial Use

Water Quality Enhancement

Waterbodies that support natural enhancement of water quality including:

- filtration of water pollutants
- streambank stabilization
- maintenance of channel integrity
- temperature moderation
- erosion control
- sediment storage



Water Quality Objectives

Propose new water quality objectives that protect the dynamic structure and function of stream and wetland systems:

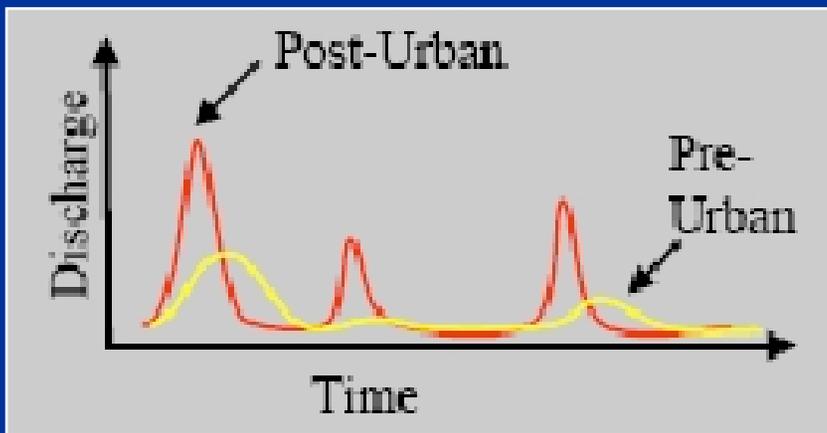
- Hydrology
- Stream Channels
- Riparian Vegetation
- Floodplains
- Wetlands
- In-stream Habitats



Hydrology

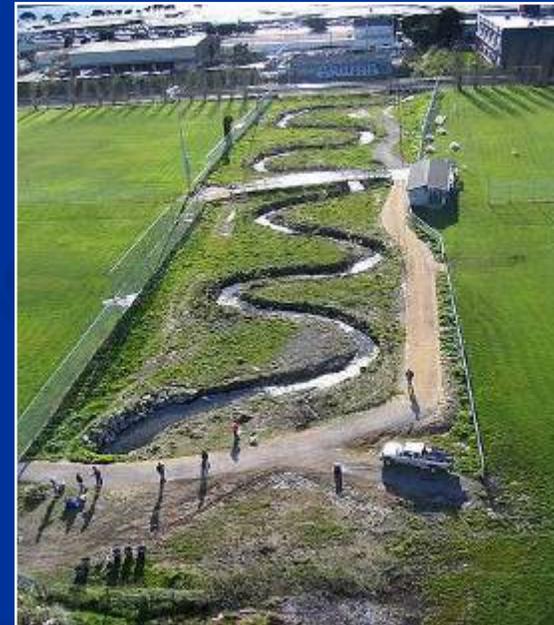
Protect *watershed infiltration capacity* to :

- reduce flood peak flows
- increase groundwater availability and stream base flows
- provide hydrologic conditions that support wetlands and riparian areas



Stream Channels

Maintain *stream channel shapes, slopes, and planforms* to protect the dynamic balance between sediment and water discharges.



Riparian Vegetation

Protect and establish *riparian vegetation* to the degree necessary to:

- prevent destabilizing erosion
- moderate stream temperatures
- provide cover, food, and habitat for aquatic and terrestrial communities
- filter pollutants
- store sediment



Floodplains

Protect *connectivity between the stream channel and floodplain* and *flood water storage capacity* to provide:

- storage and attenuation of high flows
- pollutant filtration
- reduction of erosive forces
- adequate space for natural adjustments of the active channel
- sediment storage
- wildlife habitat
- groundwater recharge
- nutrient cycling



Wetlands

Protect *physical, chemical, and biological characteristics* to:

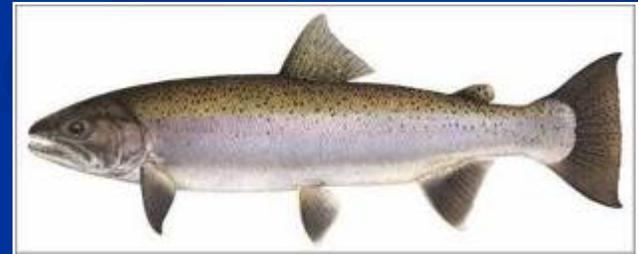
- store natural surface drainage
- recharge groundwater and surface waterbodies
- store and transport sediment
- maintain beneficial water temperatures
- cycle nutrients
- maintain biodiversity
- filter pollutants
- provide wildlife habitat



Instream Habitats

Maintain in-stream habitat and associated fauna by protecting:

- reproductive and rearing areas
- base flows
- substrate characteristics
- movement corridors



Implementation Plan

Policy Application

Link to existing relevant permits and programs:

- WDRs
- 401 certifications
- THP reviews
- CEQA reviews
- WDR waivers
- NPDES permits
- TMDL implementation
- Grants

Types of activities that may be regulated:

- In-channel activities
- Wetland disturbance
- Riparian area disturbance
- Floodplain management
- Stormwater and runoff management

Implementation Plan

Guidance on Policy Application

- Streams: provide definition which includes intermittent and ephemeral
- Wetlands: clarify differences between state and federal jurisdiction and provide guidance to identify wetlands not meeting federal criteria
- Riparian Areas: provide methodology to identify areas that provide water quality functions

Implementation Plan

Provide flexibility for different watershed conditions through reasonable planning and review process:

1. Avoid impacts if possible
2. Minimize unavoidable impacts through appropriate management measures
3. Mitigate remaining impacts to protect beneficial uses

Implementation Plan

Waste Discharge Prohibitions

Prohibit certain types of discharges to stream and wetland systems

Potential Examples:

- No discharge of stormwater that leads to excessive erosion
- No clearing of riparian vegetation that results in discharge of heat (solar radiation) to waters and leads to adverse increase in temperature



Implementation Plan

Performance Criteria and Permit Conditions

- Provide flexibility for different watershed conditions
- Link to permit conditions to assess compliance with water quality standards
- Potential Examples:
 - Runoff management requirements
 - Riparian buffer
 - Riparian vegetation
 - Bioengineering
 - Floodplain management



Implementation Plan

Alternative Regulatory Approach

- Local agencies, dischargers, or watershed groups develop watershed plans that meet policy goals
- Activities covered under plan receive general or conditional waiver of waste discharge requirements
- Increased flexibility for local conditions and concerns

Implementation Plan

Non-Regulatory Approach

- Promote multi-objective projects that integrate stream and wetlands protection with flood control, water supply, recreation, etc.
- Encourages local governments to adopt ordinances implementing sustainable development principles
- Give higher grant priority to local governments that adopt:
 - Ahwahnee Water Principles for Resource Efficient Land Use
 - Low-impact development, transit-oriented development, smart growth, and green building standards
 - Stream protection ordinances with riparian buffers

Next Steps

- Receive Comments (due March 9th) and Post Summary
- Draft Basin Plan Amendment and Staff Report (*Spring '07*)
- Staff Report Workshop (*Summer '07*)
- Public Review and Comment (*Fall '07*)
- Public Adoption Hearing (*Winter '07*)

Please submit written comments to Ben Livsey:

Email: blivsey@waterboards.ca.gov

Mail: California RWQCB, SF Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Fax: (510) 622-2308

Further Information

Visit the Policy website:

[http://www.waterboards.ca.gov/sanfranciscobay/streamandwetlands
.htm](http://www.waterboards.ca.gov/sanfranciscobay/streamandwetlands.htm)

Subscribe to the Policy email list:

http://www.waterboards.ca.gov/lyrisforms/reg2_subscribe.html