



Russian River Tributaries Emergency Regulation Follow Up Meeting

November 2, 2015 – 6:00 – 9:00 pm

State Water Resources Control Board

and

California Department of Fish and Wildlife

Information Meeting



Logistics

- While Board members may be in attendance, no decisions will be made today
- Sign-in sheets and handouts are at back of room
- Please hold questions and comments until after the presentation
- If you would like to speak during the discussion period please raise your hand and staff will give you a speaker number
- Comment cards are available in the back for those who do not wish to speak tonight, but would like to provide comments



Meeting Ground Rules

- Respect all speakers, all points of view are valid
 - You may not agree with a statement, but please allow the speaker the opportunity to be heard
- All who wish to speak must use a microphone
- Speakers may ask one question or make one comment at a time so that everyone has the opportunity to speak
 - First portion of meeting is focused on providing information
 - Second portion of meeting is focused on answering questions, discussion and comments
- Please silence electronic devices



General Agenda for Tonight

- State Water Board Presentation to Provide Update on Emergency Regulation
 - Enhanced Water Conservation Measures
 - Informational Order
- California Department of Fish and Wildlife Presentation on Stream and Fisheries Conditions
- Next Steps for Instream Flows
- Break (if desired)
- Questions and Discussion



Update on Implementation of Russian River Tributaries Emergency Regulation

November 2, 2015

State Water Resources Control Board Staff

Erin Ragazzi & Daniel Schultz



Russian River Tributaries Emergency Regulation

- Effective Date: **July 6, 2015 – April 1, 2016 (270 days)**
- Applies to four Russian River tributary watersheds:
 - Dutch Bill Creek
 - Green Valley Creek
 - Mark West Creek (portions of)
 - Mill Creek
- Two components (similar to other drought emergency regulations adopted by the State Water Board):
 - Enhanced Water Conservation Measures (currently applies only to critical areas of four watersheds)
 - Informational Order (applies to entire area of four watersheds)



Enhanced Water Conservation Measures Update

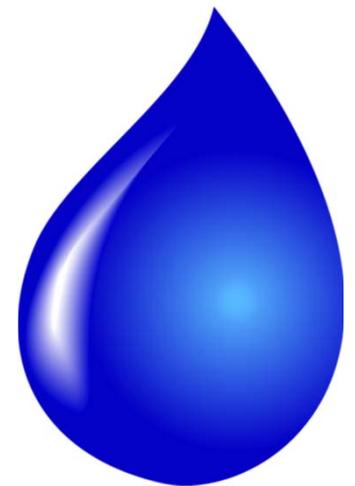
THANK YOU

**to all those that conserved
and continue to do so!**

Enhanced Russian River Tributaries Water Conservation Measures*

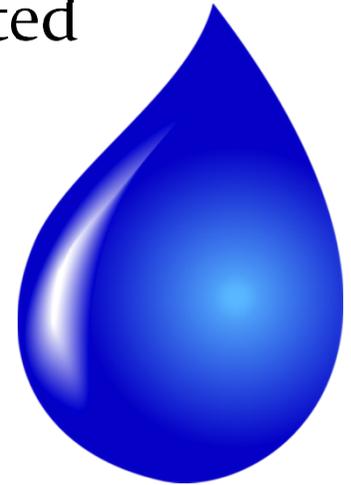
- Builds on statewide water conservation regulation
- Prohibits application of potable and non-potable water to:
 - ornamental turf
 - **landscapes in a manner that causes runoff**
 - landscapes more than two days per week
 - landscapes between 8:00am to 8:00pm
 - **landscapes during and within 48 hours after measurable rainfall**

** Not all enhanced conservation measures are provided.*



Enhanced Russian River Tributaries Water Conservation Measures

- Currently only applies to water sourced from critical areas (upper portion) of the four watersheds
- Prohibitions on water use do not apply to recycled water, gray water, imported water, or untreated rainwater (stormwater)











Enhanced Water Conservation Compliance Inspections

- 23 field inspections conducted by State Water Board staff
 - Although many landowners are complying with the enhanced water conservation measures, many others are not.
- 14 warnings issued based on observed violations
 - 10 warnings specific to ornamental turf
 - 4 warnings issued for other observed violations
- 5 Notices of Complaint issued to landowners
- Aerial photography flights



Informational Order Update

THANK YOU

to all those that submitted
the requested information!



Informational Order

- Emergency Regulation authorizes State Water Board to issue Informational Orders
- Orders require landowners in and suppliers of water from the watersheds to provide information on diversion and use of surface water and groundwater
 - Any party receiving an order is required to provide the requested information within 30 days
 - Failure to comply with the Informational Order could result in enforcement with penalties of up to \$500 for each day the information is not submitted after it is due



Informational Order Background

- Informational Order issued (signed) on August 24, 2015
 - Beta testing performed by landowners prior to release
- Information must be submitted via Online Informational Order Form
- Examples of type of information requested:
 - Number of water sources
 - Information on water sources (groundwater wells, surface water diversions, water from suppliers, etc.)
 - Estimated water use, by month
 - Beneficial uses of water (e.g., domestic, irrigation, etc.)



Informational Order Timeline

- **August and September:** Informational Order issued to all landowners in and suppliers of water from the four priority tributary watersheds (~10,100 letters mailed)
- Due dates to respond to the Order have passed:
 - **October 9***: Dutch Bill Creek
 - **October 14***: Green Valley Creek
 - **October 20**: Mark West Creek
 - **October 23**: Mill Creek
- **October 28 & October 30:** Reminder letters mailed to landowners and water suppliers who have not submitted responses (based on information submitted by October 25)

* Due date includes a nine day extension because the online form was down for repairs.



Informational Order Assistance

- To date, State Water Board staff have responded to:
 - More than 2,055 calls
 - More than 500 e-mails
 - 275 parcels with groundwater well information submitted
- More than 90 appointments to provide one-on-one in person assistance in completing the Online Informational Order Form



Informational Order: Feedback

- Online Informational Order Form is complicated
- Overall usability/understandability of Online Informational Order Form
 - Technical problems/questions with Online Informational Order Form
 - Confirmation page problems (information entered may not be shown until the page is refreshed)
- Threatening tone of letter

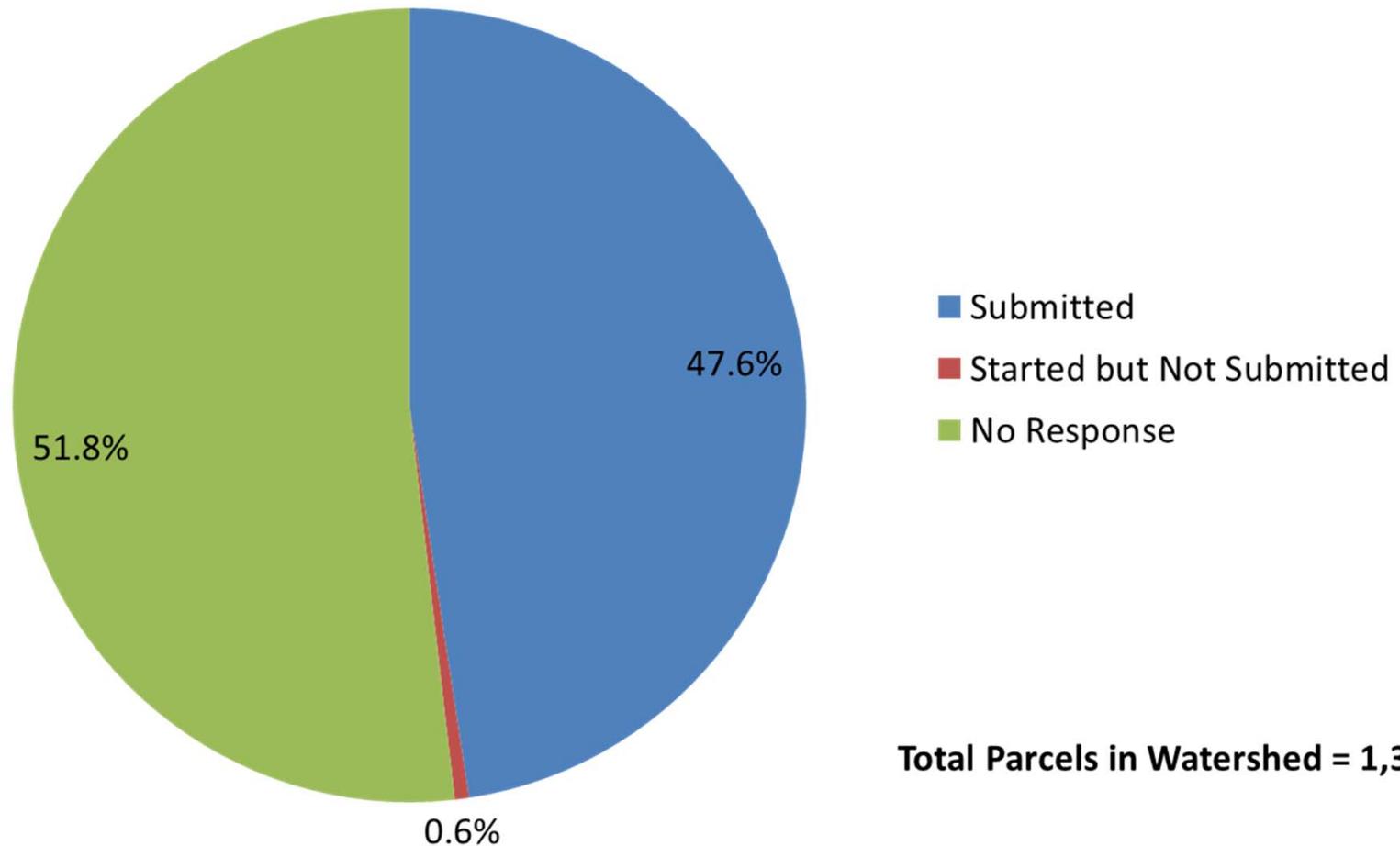
State Water Board staff appreciates the constructive feedback we've received and will take this feedback and our experiences into consideration should similar efforts be pursued in the future



Informational Order Form: Preliminary Findings

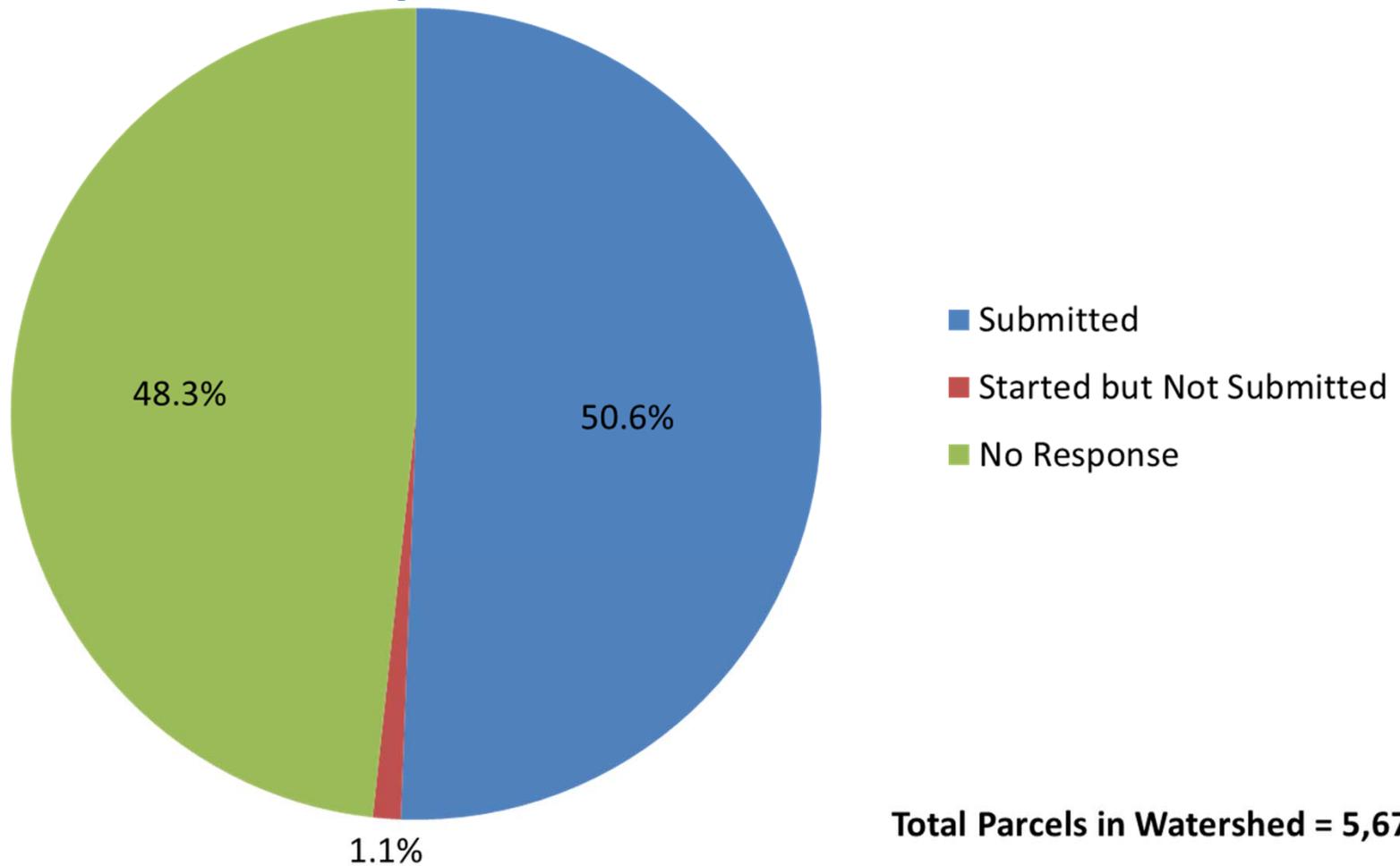
- Findings are based on information submitted through October 25, 2015
- Overall response rate is approximately 50%
 - Reminder letters have been mailed to those that have not yet submitted responses
- Most common sources of water: served by water supplier, groundwater well, or no water available
- Fewer parcels supplied by a surface water diversion, contract water, or multiple sources of water

Informational Order Responses: Dutch Bill Creek Watershed

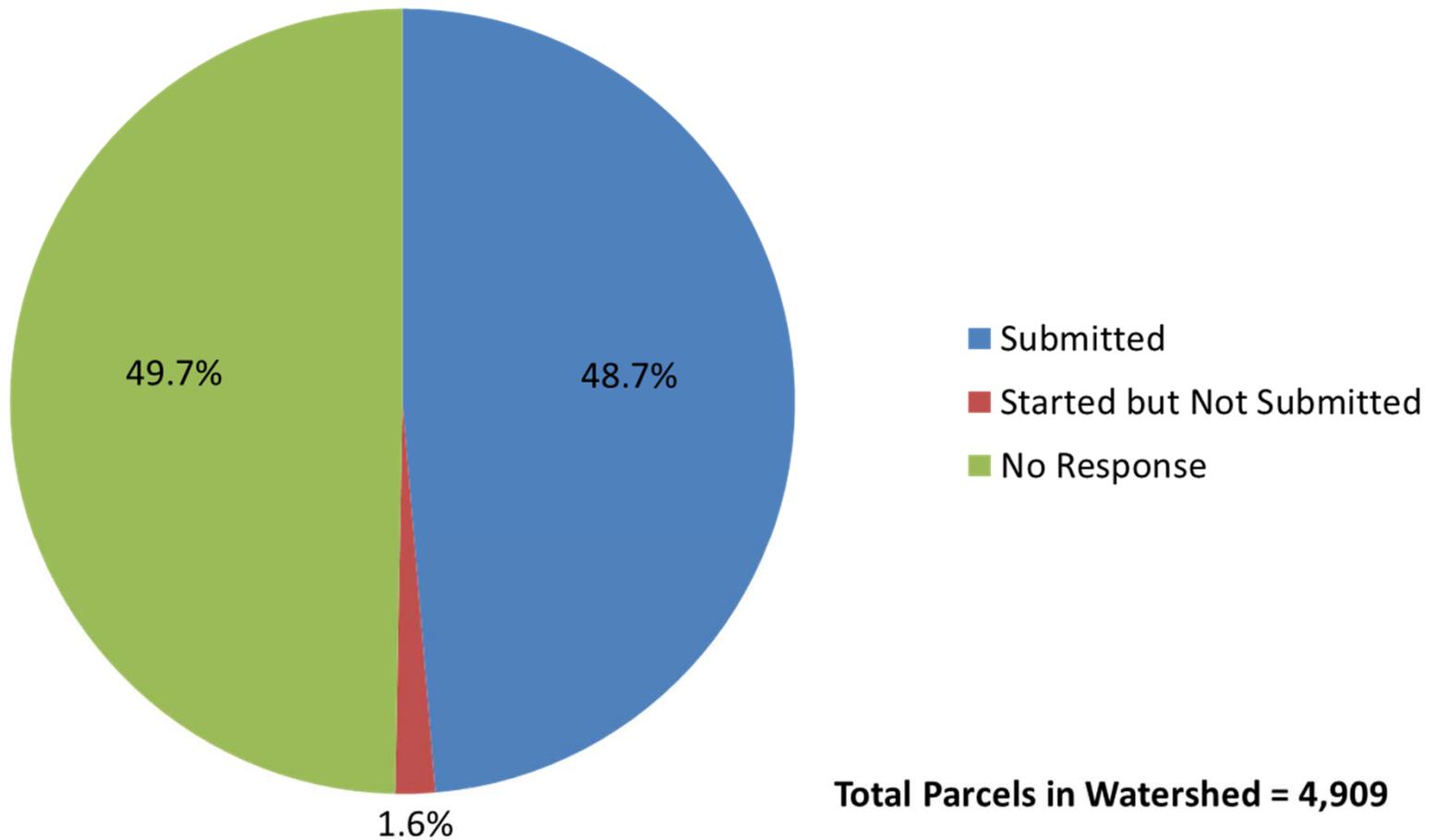


Total Parcels in Watershed = 1,395

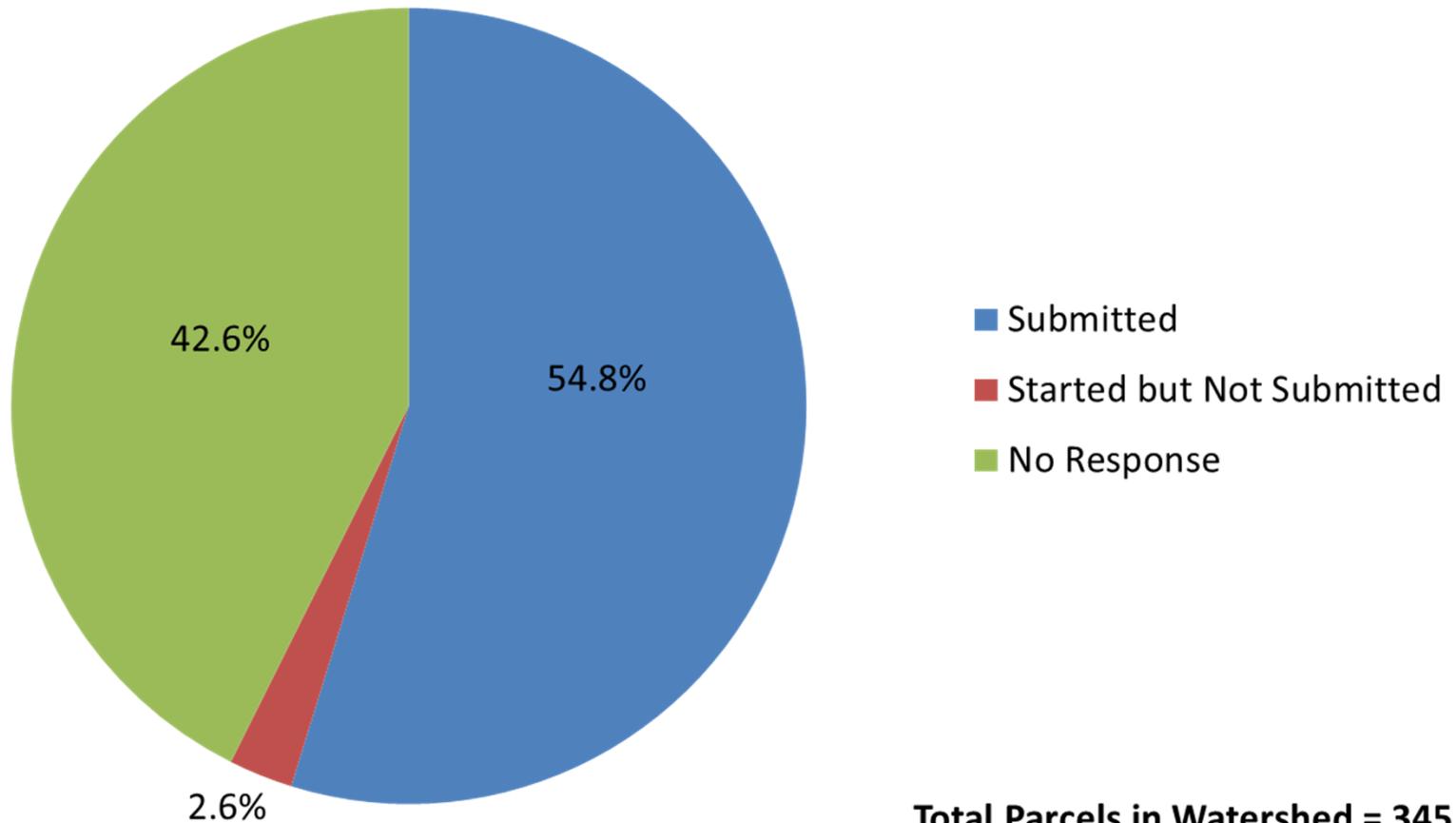
Informational Order Responses: Green Valley Creek Watershed



Informational Order Responses: Mark West Creek Watershed

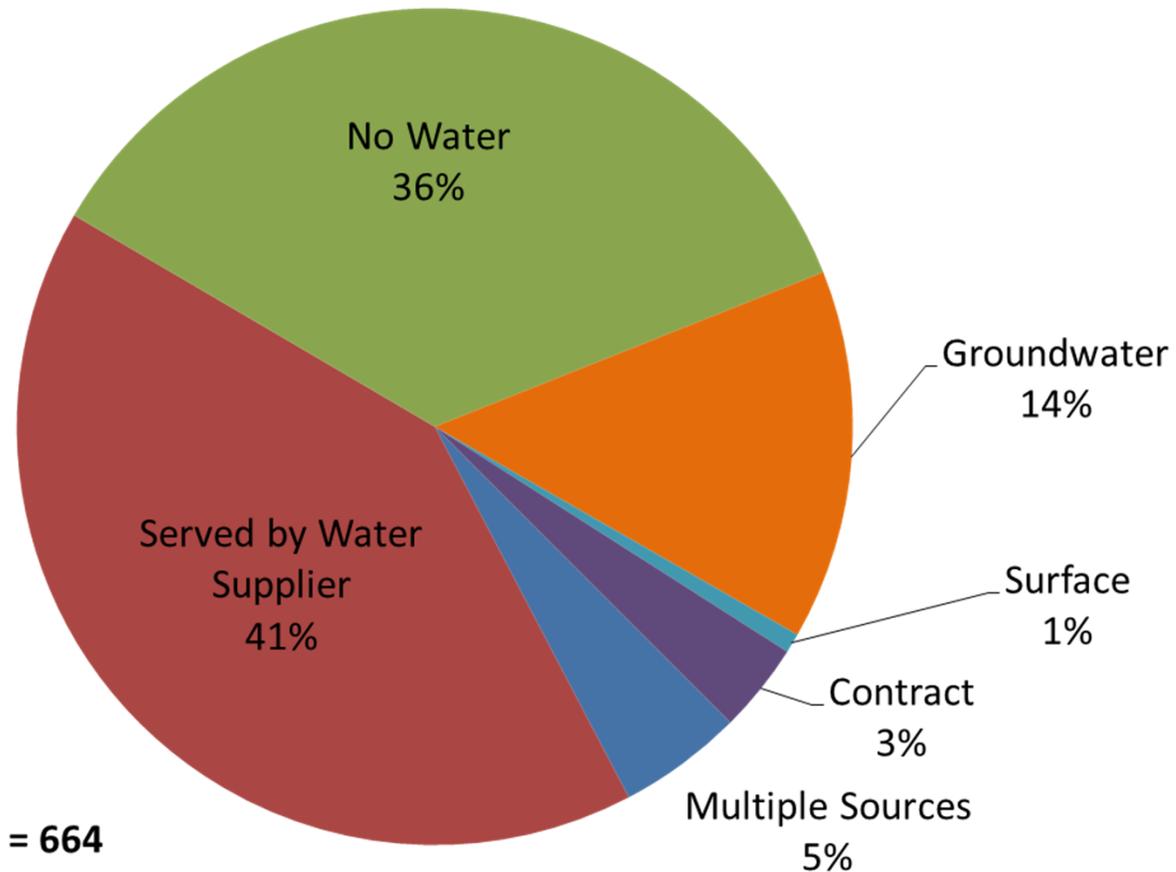


Informational Order Responses: Mill Creek Watershed



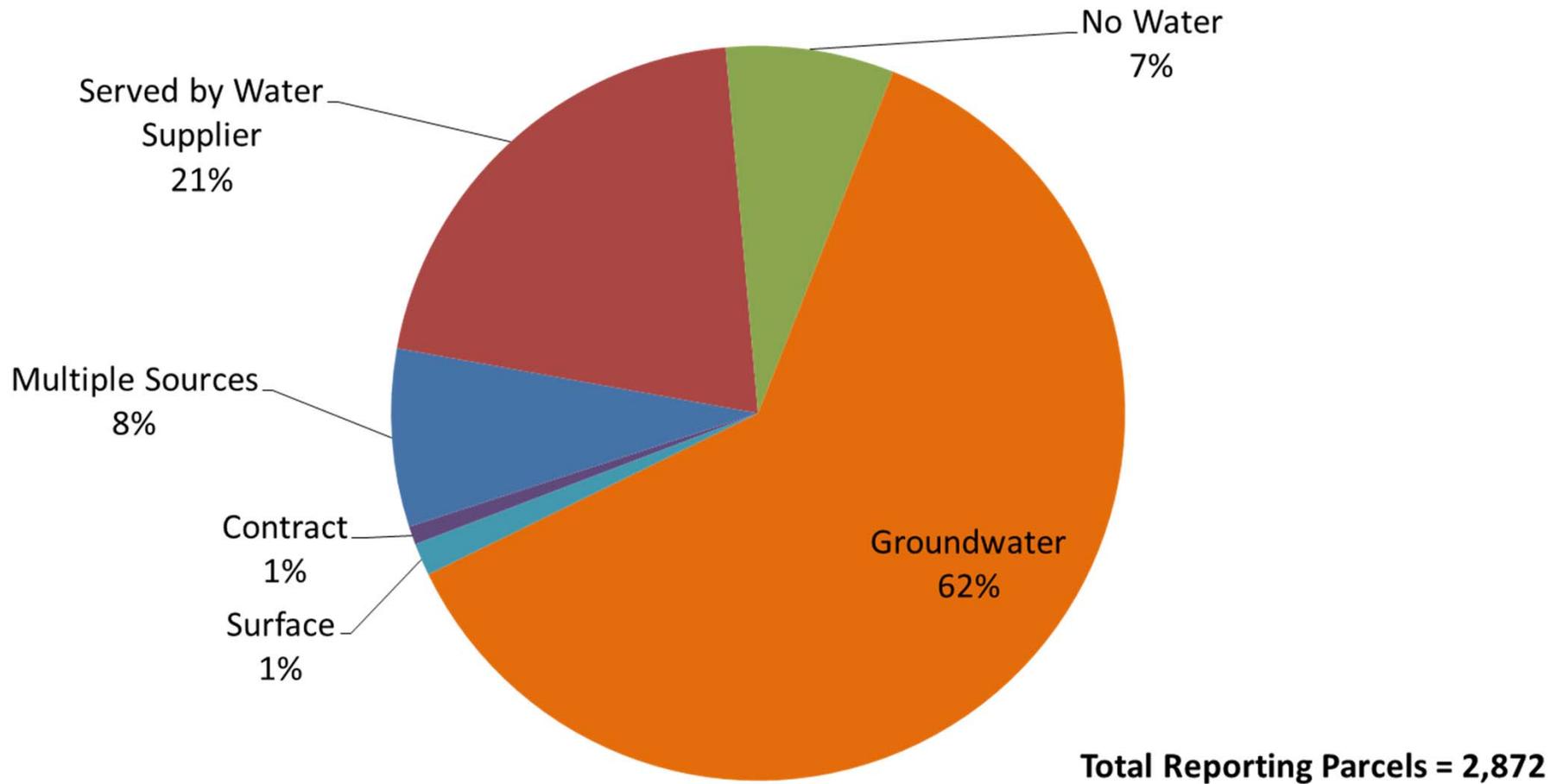
Total Parcels in Watershed = 345

Reported Water Source: Dutch Bill Creek Watershed

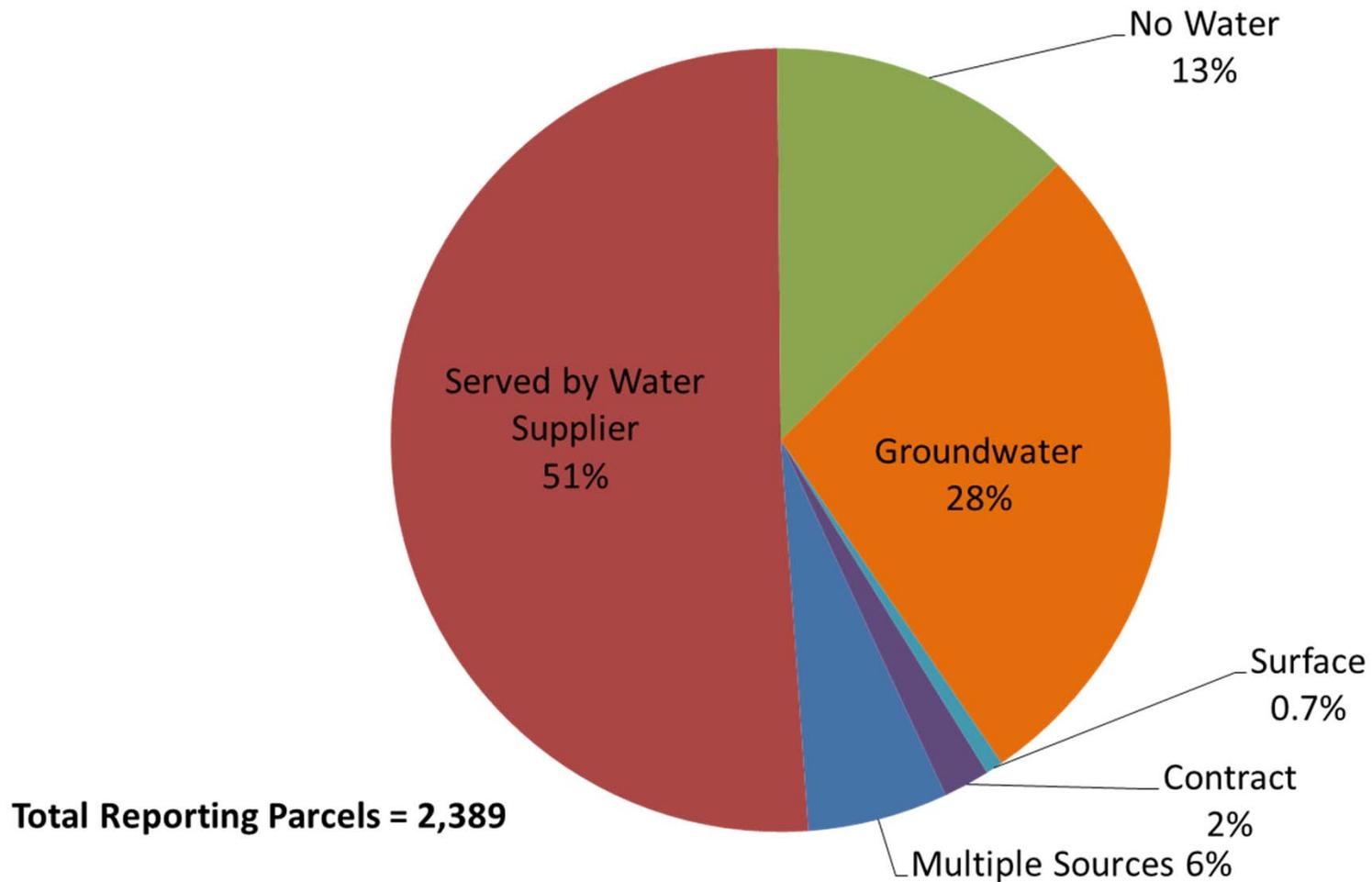


Total Reporting Parcels = 664

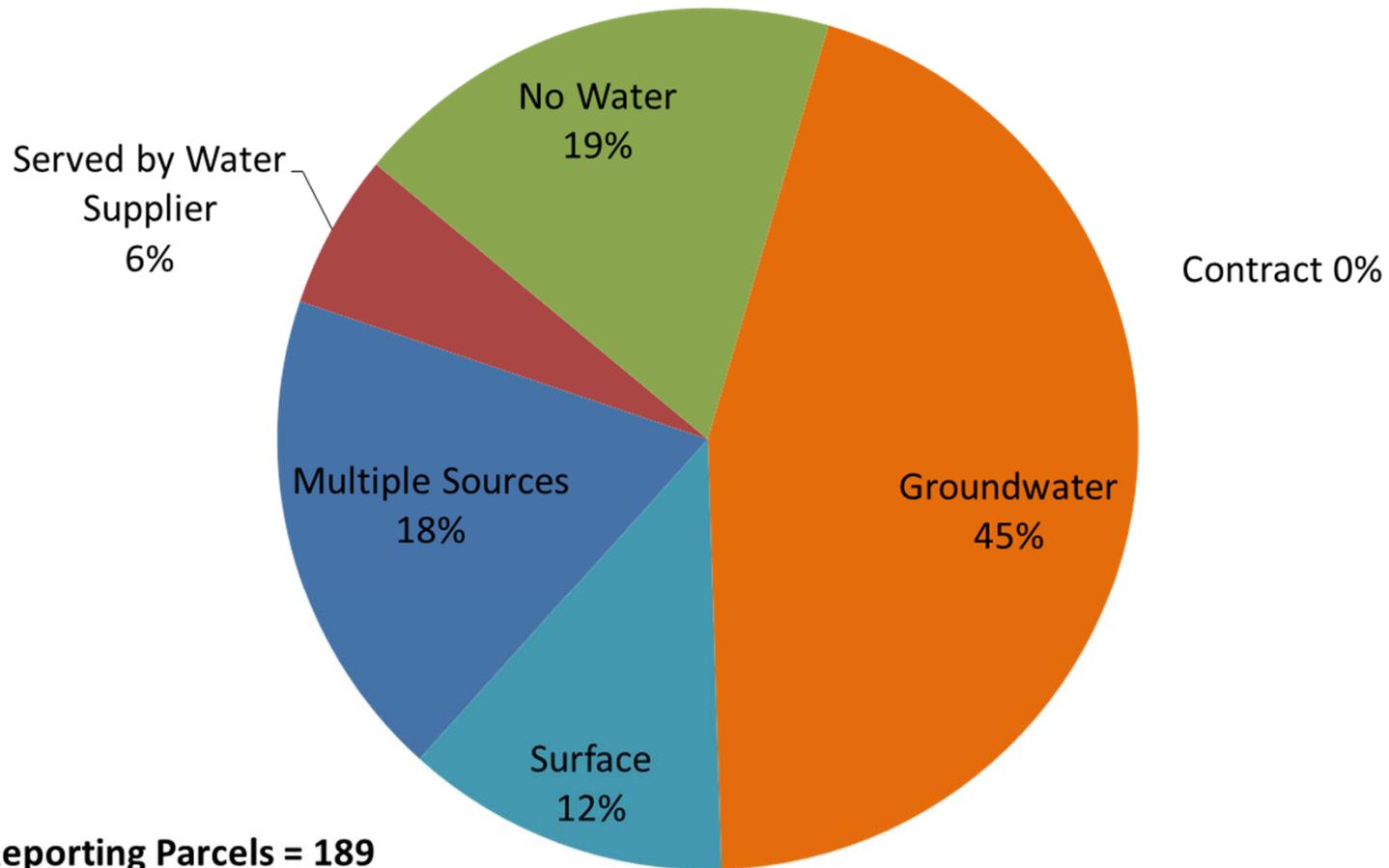
Reported Water Source: Green Valley Creek Watershed



Reported Water Source: Mark West Creek Watershed



Reported Water Source: Mill Creek Watershed



Total Reporting Parcels = 189

Status of Coho Salmon in the Priority Russian River Tributaries 2015 Drought Update



Corinne Gray, Senior Environmental Scientist (Specialist)
Gail Seymour, Senior Environmental Scientist (Supervisor)
California Department of Fish and Wildlife
Bay Delta Region



Voluntary Drought Agreements in the 4 Tributaries

We have received:

- 35 Residential Conservation VDI's
- 7 Winery/ Vineyard Conservation VDI's

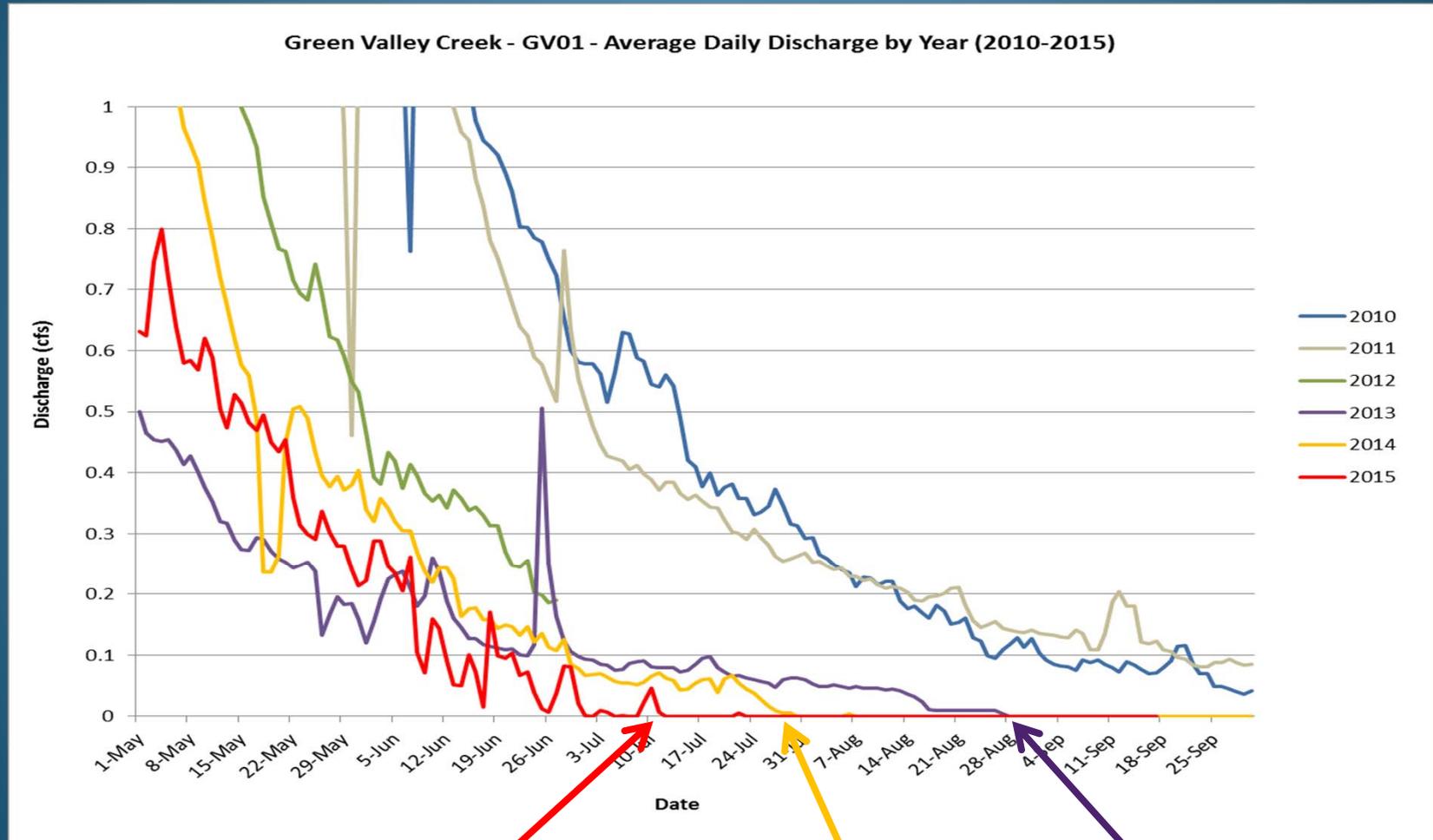


We have also signed:

- 3 Flow Enhancement VDI's for Green Valley Creek
- 2 Flow Enhancement VDI's for Dutch Bill

In addition, 71 winegrape growers representing 1,900 acres of vineyard pledged to reduce water demand by 25 percent.

Green Valley Creek Flow (2010-2015)



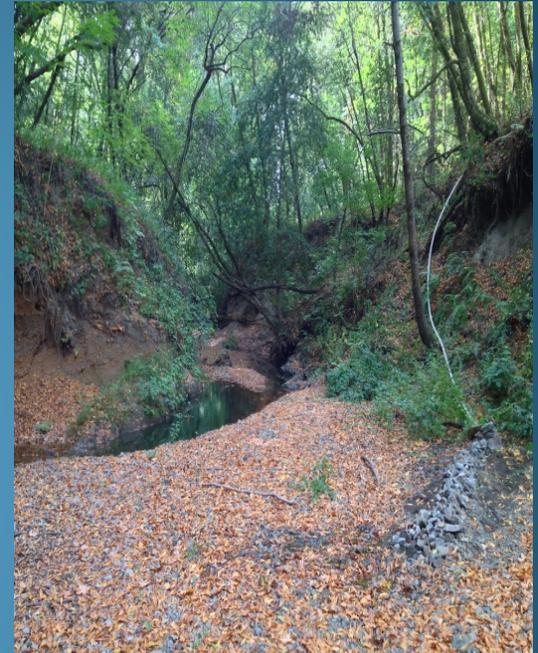
July 2015

August 2014

September 2013

Green Valley Creek Flow Enhancement Projects

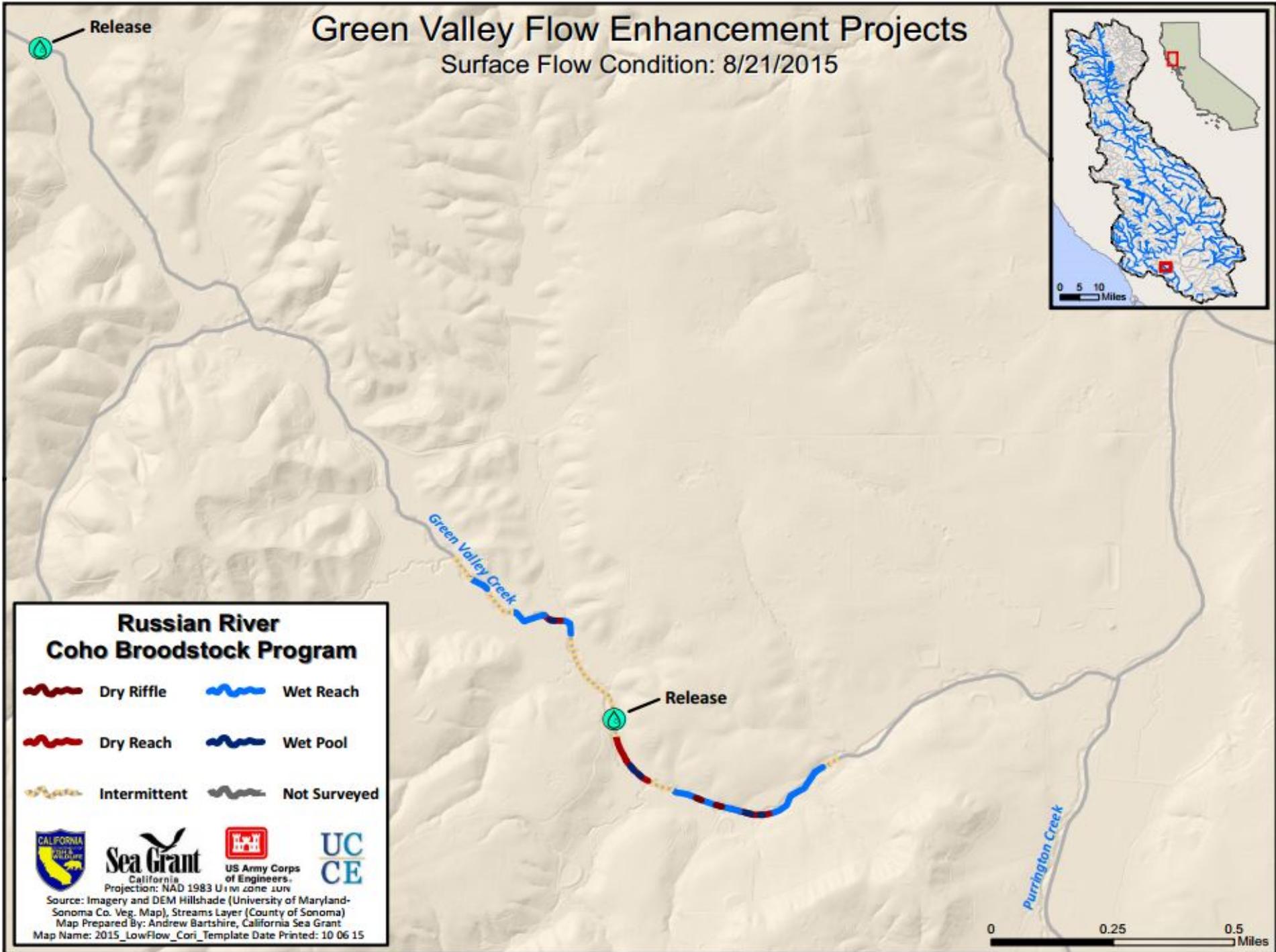
- 3 Flow Enhancement VDI's were signed in Green Valley Creek
 - Jackson Family Wines
 - Chris Panym/ Michael Paine
 - Bob and Dianne Gianni
- All three committed to releasing water into Green Valley Creek **through November** or until flows are restored from rainfall events
- **Partners** included: Jackson Family Wines, Chris Panym, Michael Paine, Bob and Dianne Gianni, ARCG, the Gold Ridge Resource Conservation District, Trout Unlimited, the Occidental Arts and Ecology Center, the Russian River Coho Salmon Captive Broodstock Program, the State Water Resources Control Board, the North Coast Regional Water Quality Control Board, CDFW and NMFS



Bones Lane release Site

Green Valley Flow Enhancement Projects

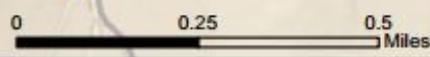
Surface Flow Condition: 8/21/2015



- Russian River
Coho Broodstock Program**
-  Dry Riffle
 -  Wet Reach
 -  Dry Reach
 -  Wet Pool
 -  Intermittent
 -  Not Surveyed

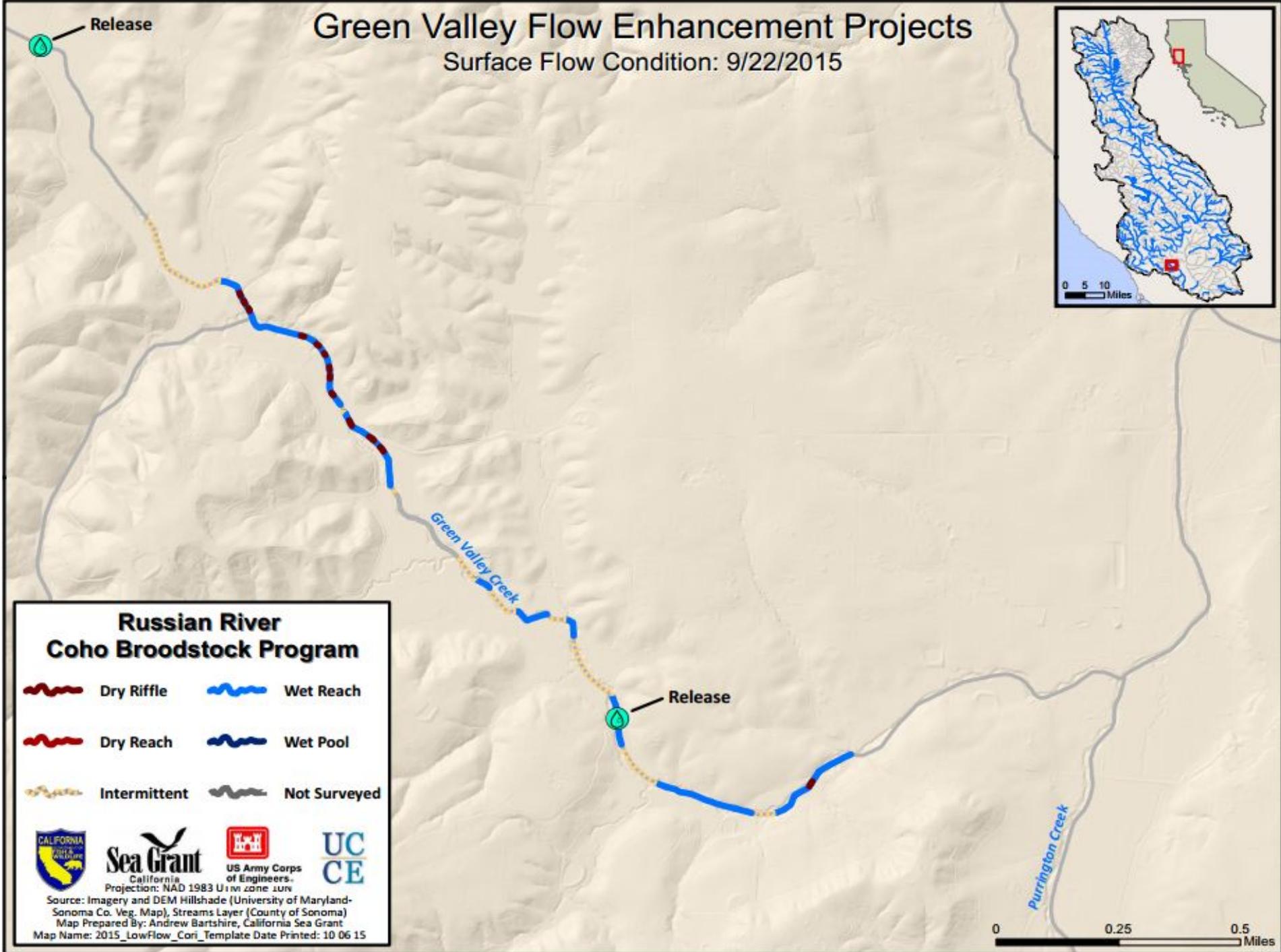


CALIFORNIA SEA GRANT
 Sea Grant
 California
 Projection: NAD 1983 UTM zone 18U
 US Army Corps of Engineers
 UC CE
 Source: Imagery and DEM Hillshade (University of Maryland-Sonoma Co. Veg. Map), Streams Layer (County of Sonoma)
 Map Prepared By: Andrew Bartshire, California Sea Grant
 Map Name: 2015_LowFlow_Cori_Template Date Printed: 10 06 15



Green Valley Flow Enhancement Projects

Surface Flow Condition: 9/22/2015

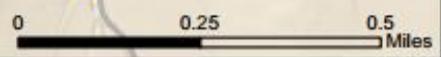


Russian River Coho Broodstock Program

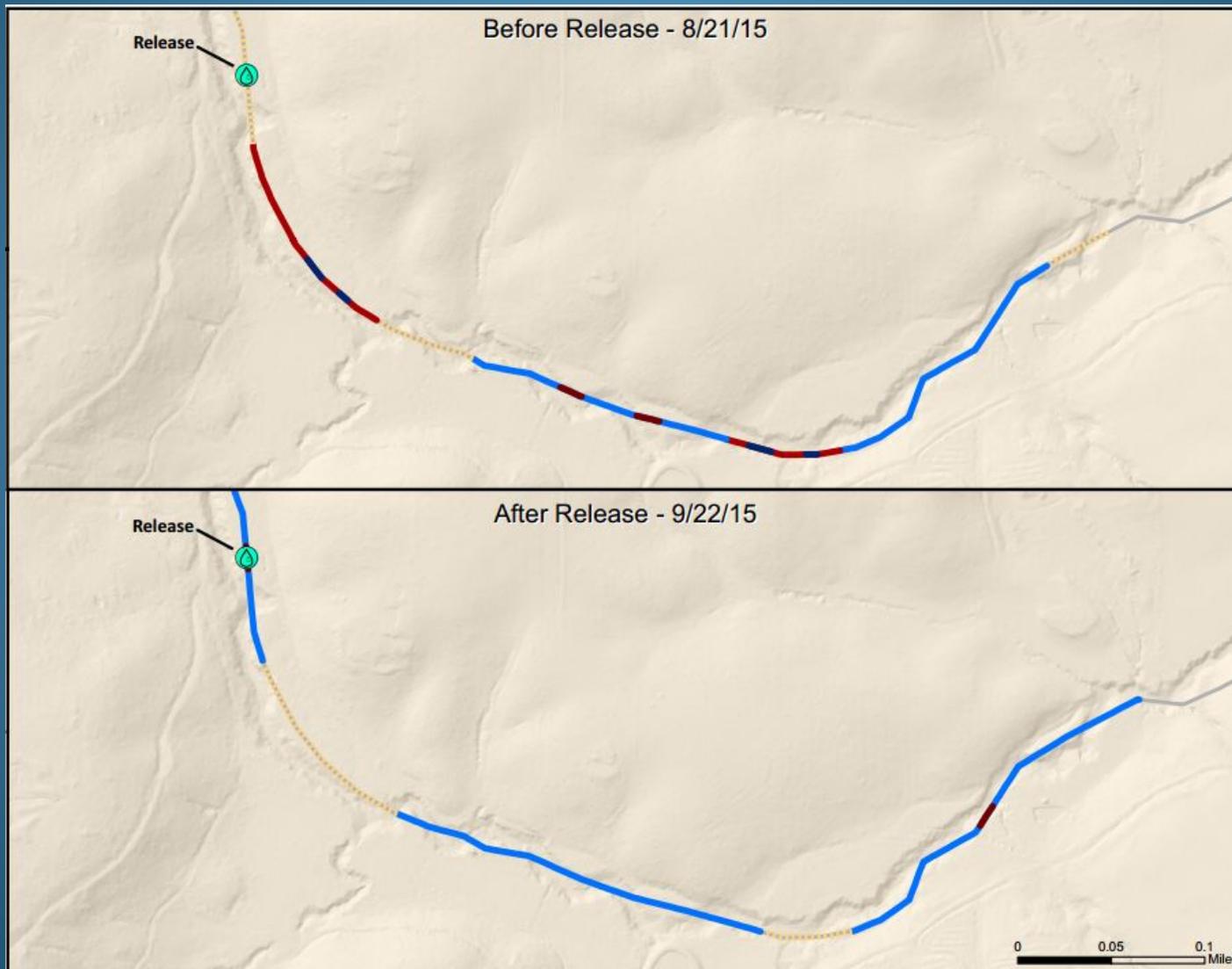
 Dry Riffle	 Wet Reach
 Dry Reach	 Wet Pool
 Intermittent	 Not Surveyed



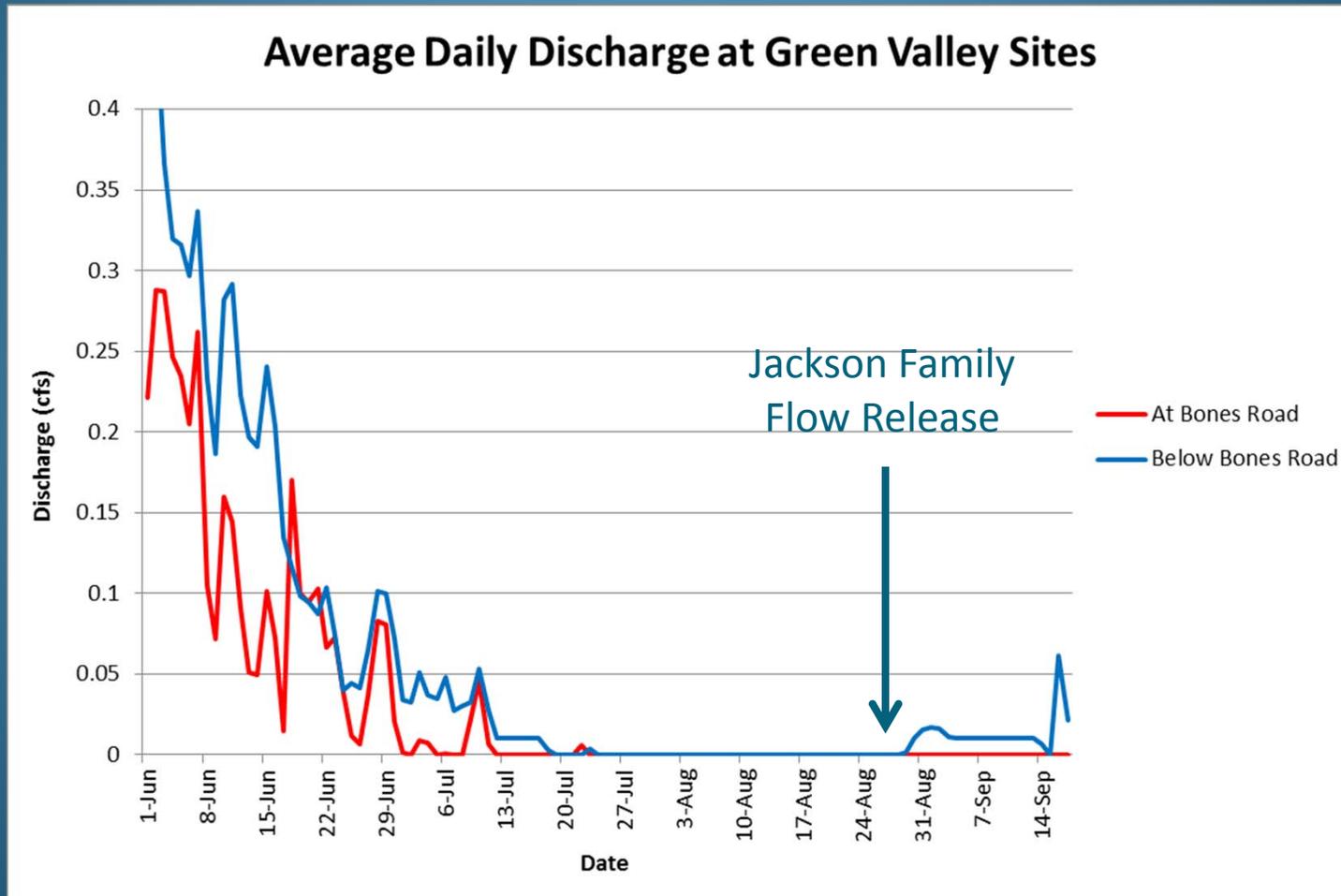
Source: Imagery and DEM Hillshade (University of Maryland-Sonoma Co. Veg. Map), Streams Layer (County of Sonoma)
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Bones Lane Release Before and After

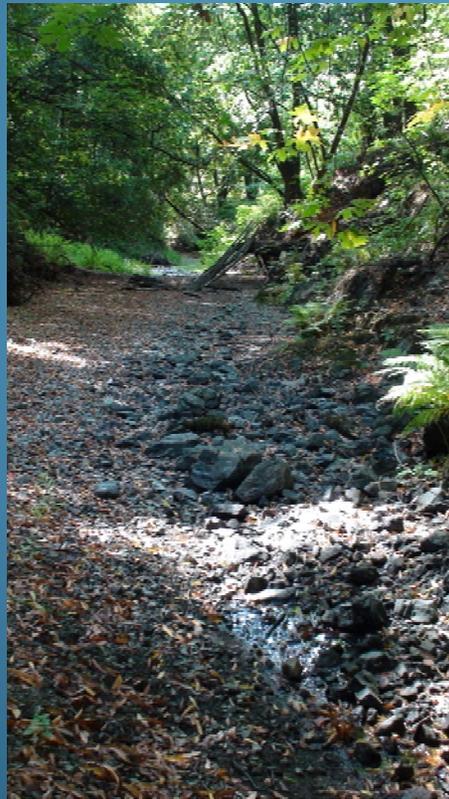


Bones Lane Hydrograph above and below Jackson release point



Bones Lane – Downstream Reach

Before



After

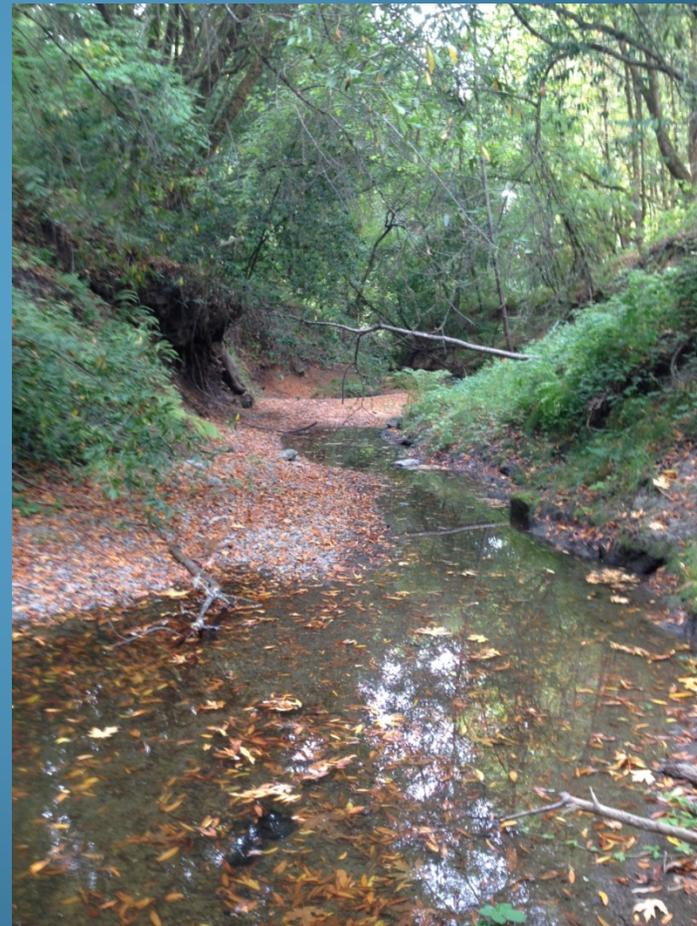


Bones Lane – Upstream Reach

Before



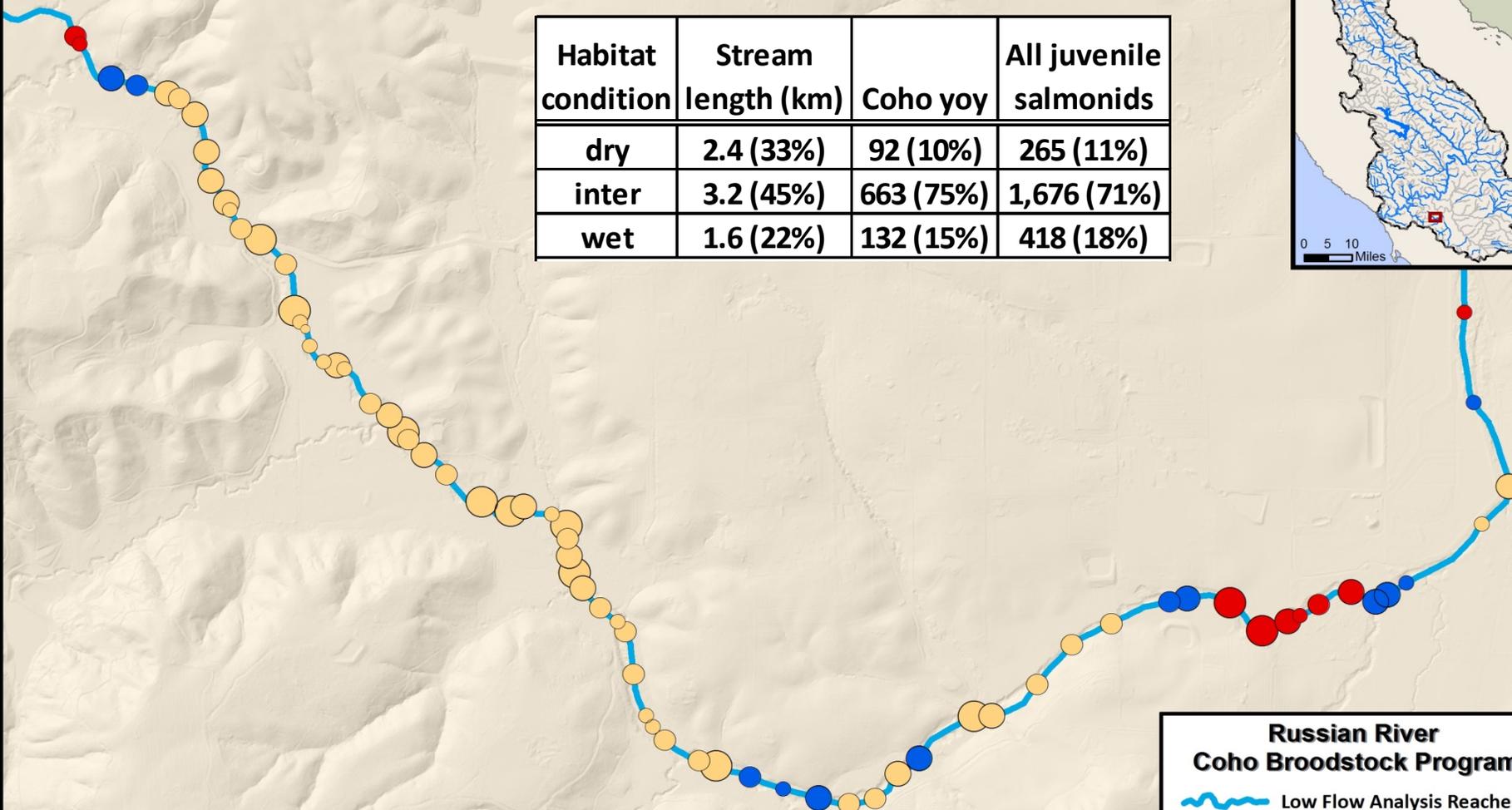
After



Green Valley Creek Juvenile Salmonids 2015



Habitat condition	Stream length (km)	Coho yoy	All juvenile salmonids
dry	2.4 (33%)	92 (10%)	265 (11%)
inter	3.2 (45%)	663 (75%)	1,676 (71%)
wet	1.6 (22%)	132 (15%)	418 (18%)



Juvenile Salmonid Counts

○ 0	○ 11-25	○ 50+
○ 1-10	○ 26-50	

● Wet ● Intermittent ● Dry

Russian River Coho Broodstock Program

~~~~~ Low Flow Analysis Reaches

~~~~~ No Low Flow Data

0 0.125 0.25 Miles

Projection: NAD 1983 UTM Zone 10N
 Source: Imagery and DEM Hillshade (University of Maryland-Sonoma Co. Veg. Map), Streams Layer (County of Sonoma)
 Map Prepared By: Andrew Bartshire, California Sea Grant
 Map Name: LowFlow_SS_SN_Template Date Printed: 10 26 15

Dutch Bill Creek Flow Enhancement Projects

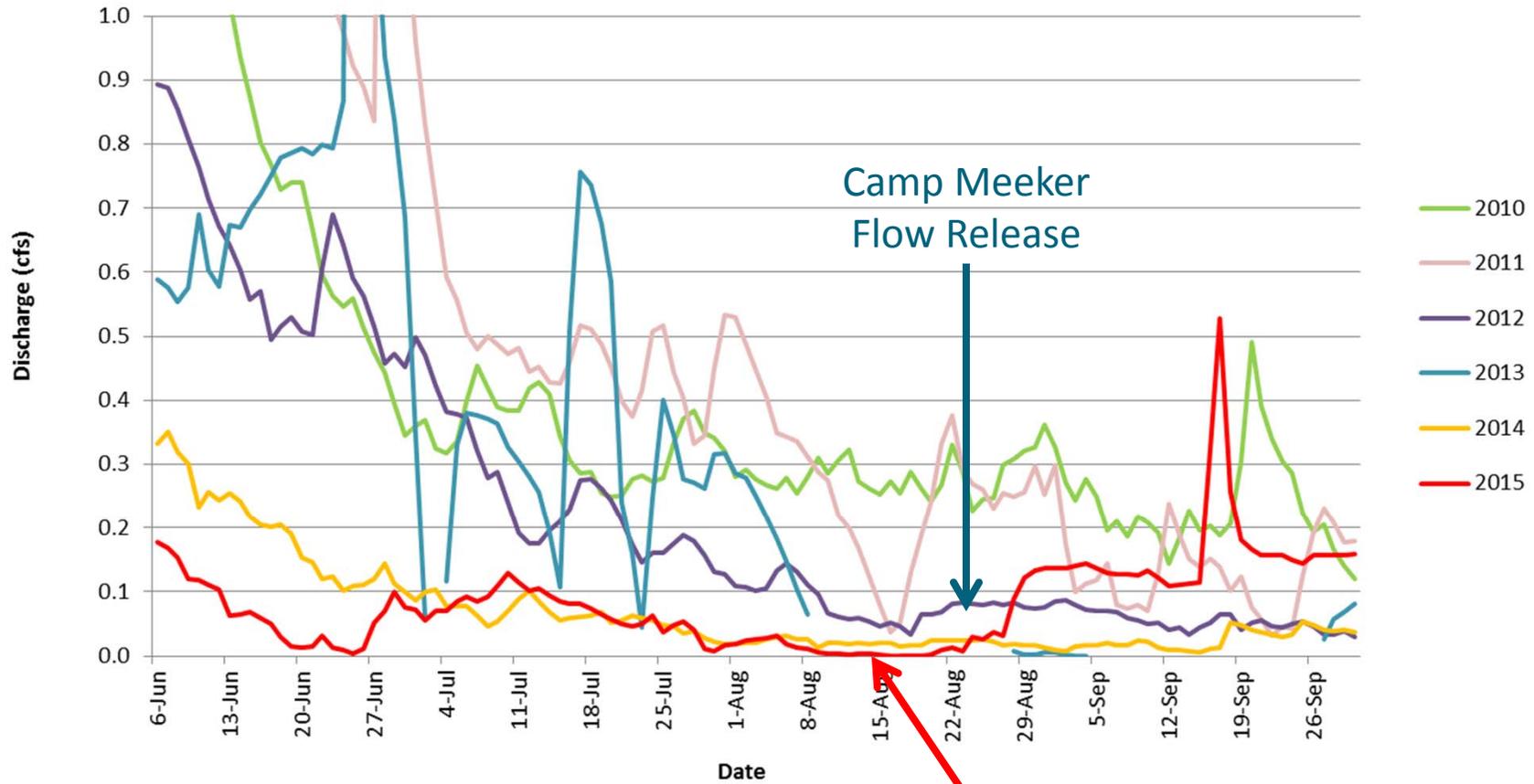
- Camp Meeker Recreation and Parks District (CMRPD) volunteered to enhance critically low summer flows in Dutch Bill Creek to protect coho salmon by releasing raw water from its water supply pipeline **continuously through November** or until flows are restored from rainfall events.
 - Approximately 3,400 juvenile coho salmon and steelhead were likely to perish
 - Flow augmentation was initiated on August 25 at a rate of 45 gallons per minute (gpm)
- St Dorothy's Rest also signed a VDI to release water from an existing reservoir in Upper Dutch Bill Creek
- **Partners** include: CMRPD, St. Dorothy's Rest, ARCG, the Gold Ridge Resource Conservation District, Trout Unlimited, the Occidental Arts and Ecology Center, the Russian River Coho Salmon Captive Broodstock Program, the State Water Resources Control Board, the North Coast Regional Water Quality Control Board, CDFW and NMFS



Brock Dolman, from the Occidental Arts and Ecology Center, displays the release of water into Dutch Bill Creek

Dutch Bill Creek Flow (2010-2015)

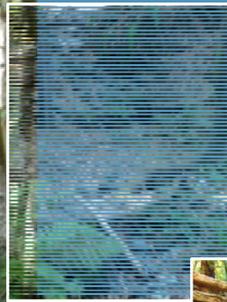
Dutch Bill Creek - DB02 - Average Daily Discharge by Year (2010-2015)



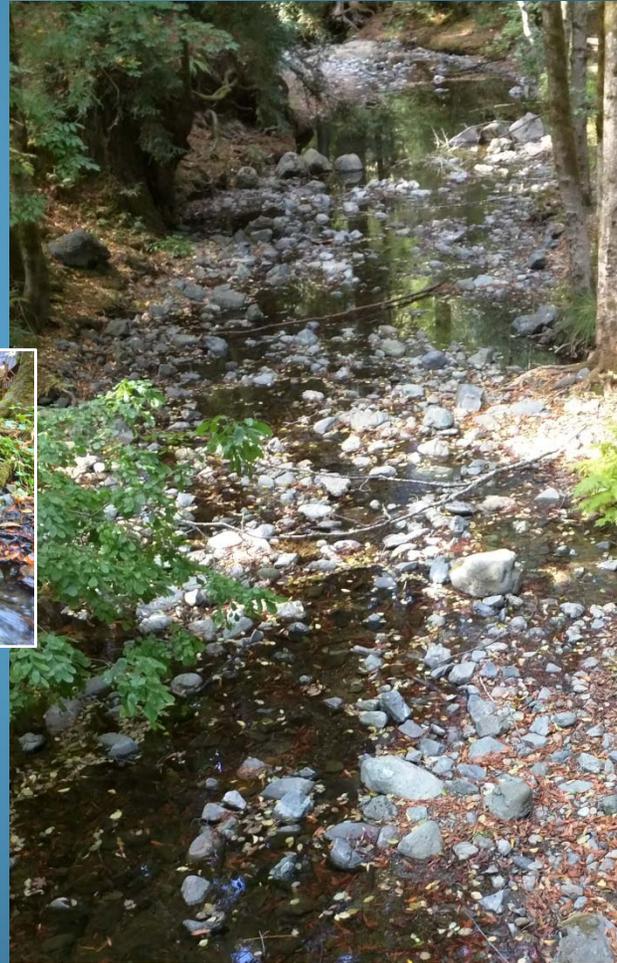
August 2015

Camp Meeker

Before



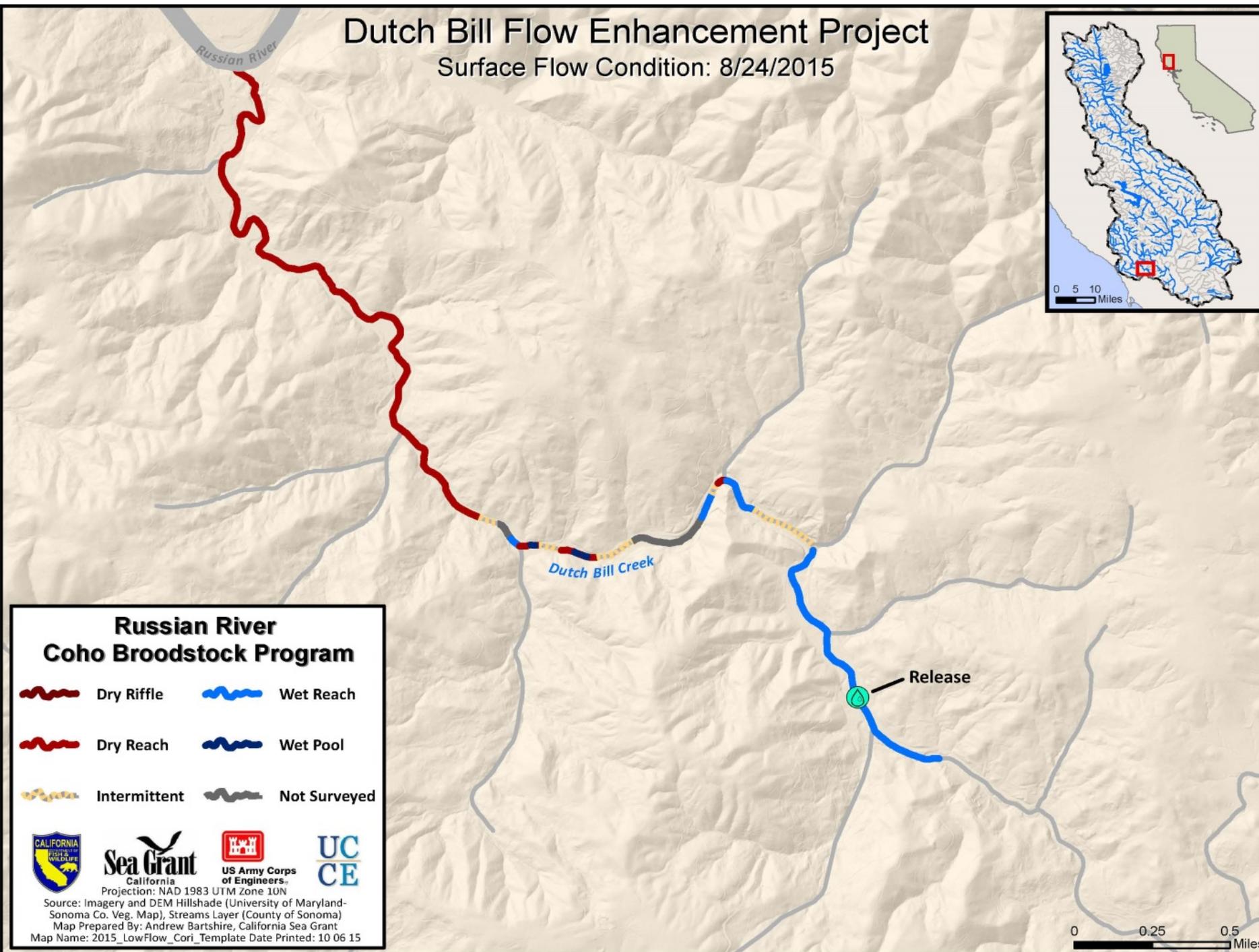
After



Point of Flow Input

Dutch Bill Flow Enhancement Project

Surface Flow Condition: 8/24/2015

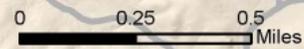


Russian River Coho Broodstock Program

| | | | |
|---|--------------|---|--------------|
|  | Dry Riffle |  | Wet Reach |
|  | Dry Reach |  | Wet Pool |
|  | Intermittent |  | Not Surveyed |

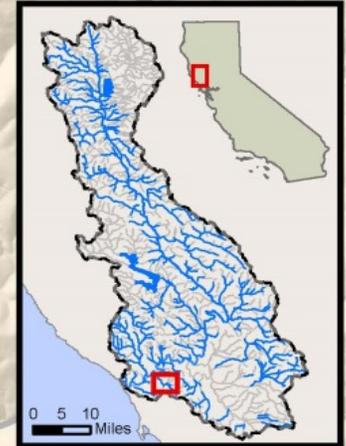
   

Projection: NAD 1983 UTM Zone 10N
Source: Imagery and DEM Hillshade (University of Maryland-Sonoma Co. Veg. Map), Streams Layer (County of Sonoma)
Map Prepared By: Andrew Bartshire, California Sea Grant
Map Name: 2015_LowFlow_Cori_Template Date Printed: 10 06 15



Dutch Bill Flow Enhancement Project

Surface Flow Condition: 9/14/2015



Russian River Coho Broodstock Program

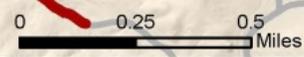
| | | | |
|---|--------------|---|--------------|
|  | Dry Riffle |  | Wet Reach |
|  | Dry Reach |  | Wet Pool |
|  | Intermittent |  | Not Surveyed |

Projection: NAD 1983 UTM Zone 10N
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Dutch Bill Creek

Release



Dutch Bill Creek Juvenile Salmonids 2015



| Habitat condition | Stream length (km) | Coho yoy | All juvenile salmonids |
|-------------------|--------------------|-----------|------------------------|
| dry | 3.9 (45%) | 86 (24%) | 161 (17%) |
| inter | 1.0 (11%) | 0 (0%) | 65 (7%) |
| wet | 3.8 (44%) | 275 (76%) | 719 (76%) |

Russian River Coho Broodstock Program

Low Flow Analysis Reaches

No Low Flow Data

0 0.25 0.5 Miles

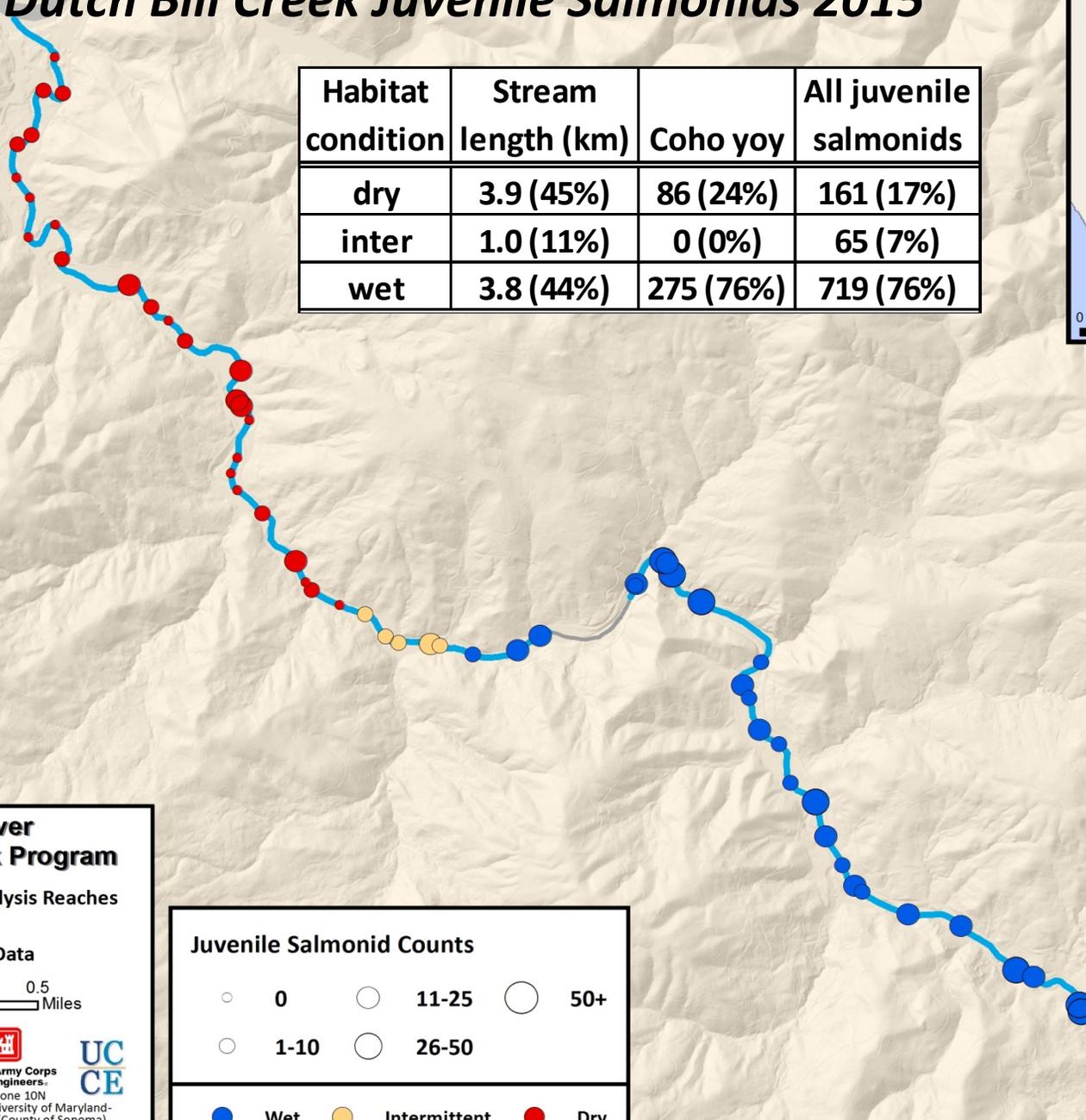
Projection: NAD 1983 UTM Zone 10N
 Source: Imagery and DEM Hillshade (University of Maryland-Sonoma Co. Veg. Map), Streams Layer (County of Sonoma)
 Map Prepared By: Andrew Bartshire, California Sea Grant
 Map Name: LowFlow_SS_SN_Template Date Printed: 10 26 15

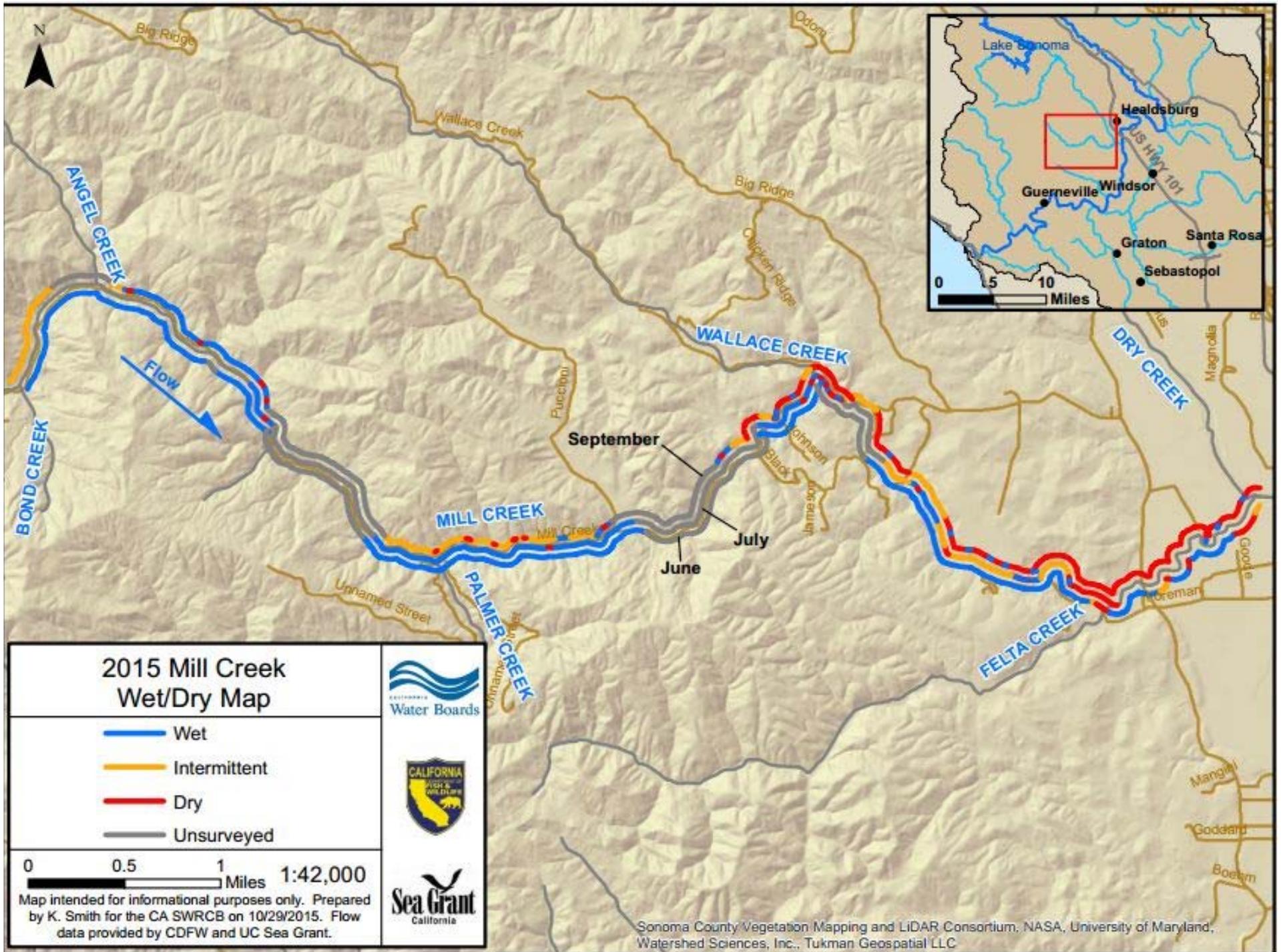
Juvenile Salmonid Counts

○ 0 ○ 11-25 ○ 50+

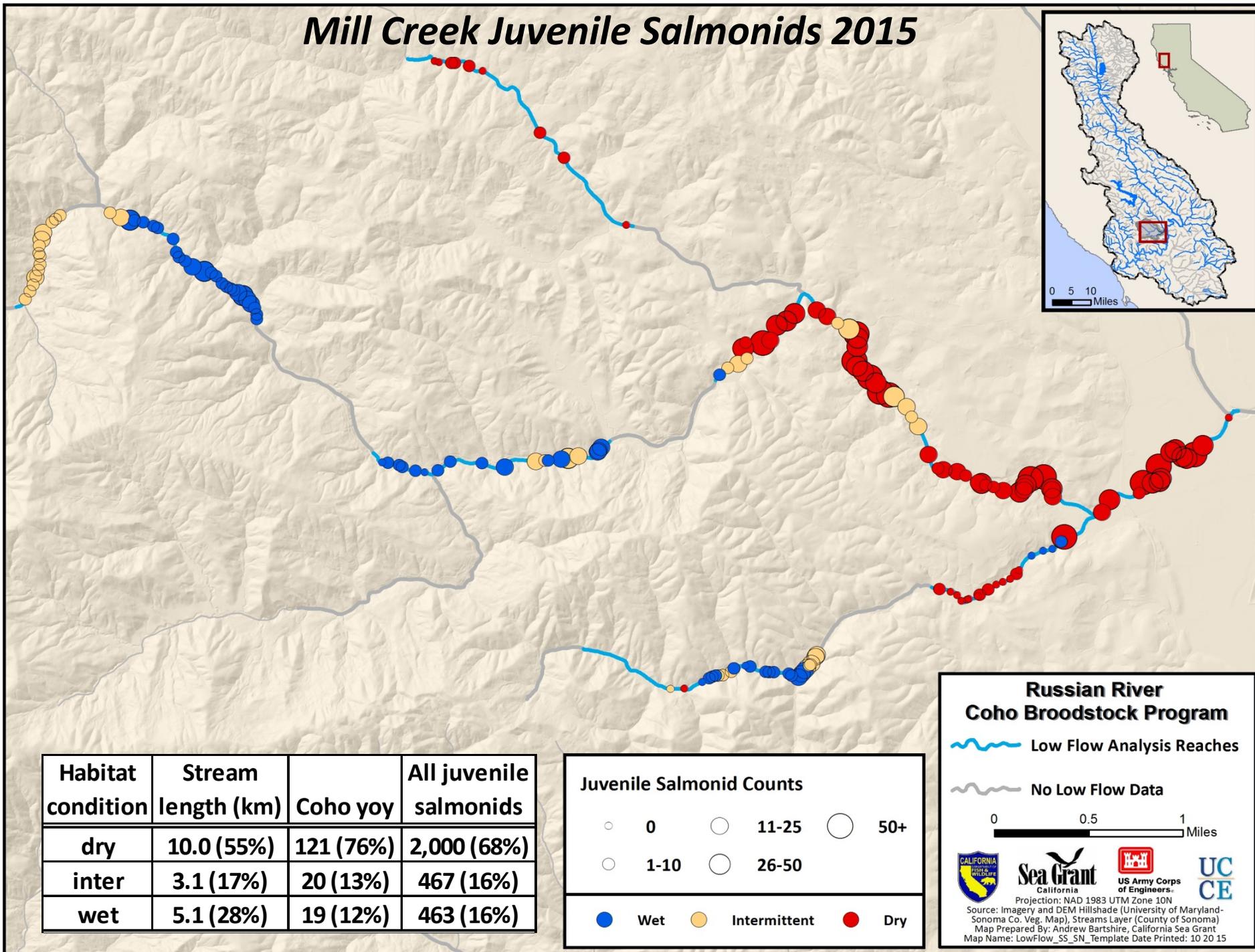
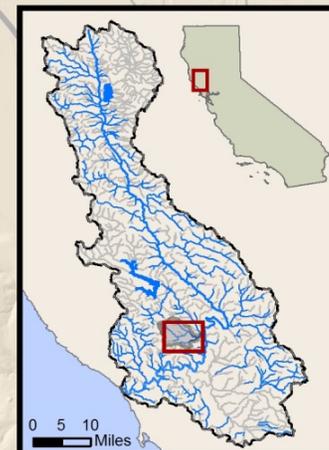
○ 1-10 ○ 26-50

● Wet ● Intermittent ● Dry





Mill Creek Juvenile Salmonids 2015



| Habitat condition | Stream length (km) | Coho yoy | All juvenile salmonids |
|-------------------|--------------------|-----------|------------------------|
| dry | 10.0 (55%) | 121 (76%) | 2,000 (68%) |
| inter | 3.1 (17%) | 20 (13%) | 467 (16%) |
| wet | 5.1 (28%) | 19 (12%) | 463 (16%) |

Juvenile Salmonid Counts

○ 0 ○ 11-25 ○ 50+

○ 1-10 ○ 26-50

● Wet ● Intermittent ● Dry

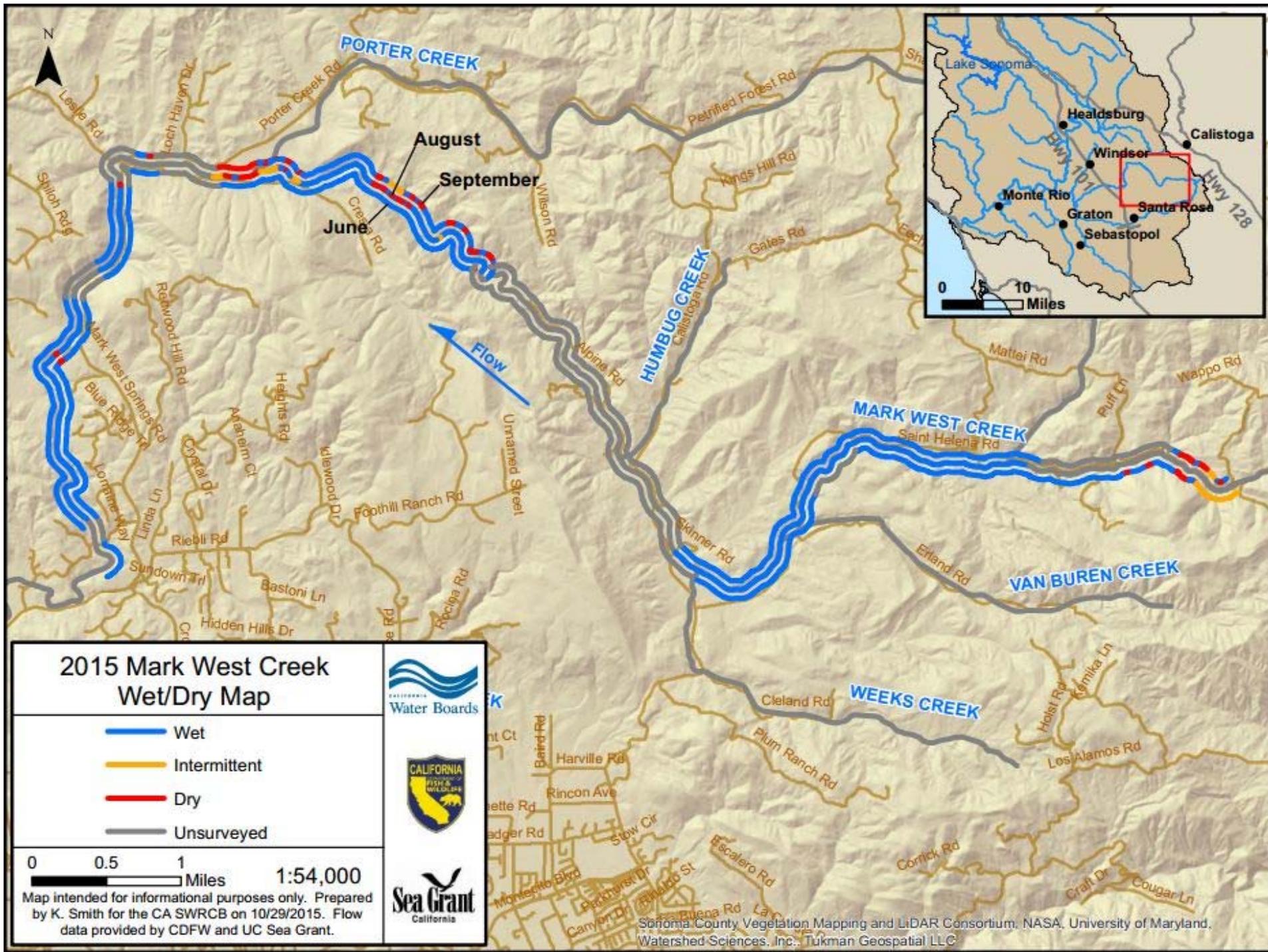
Russian River Coho Broodstock Program

~~~~~ Low Flow Analysis Reaches

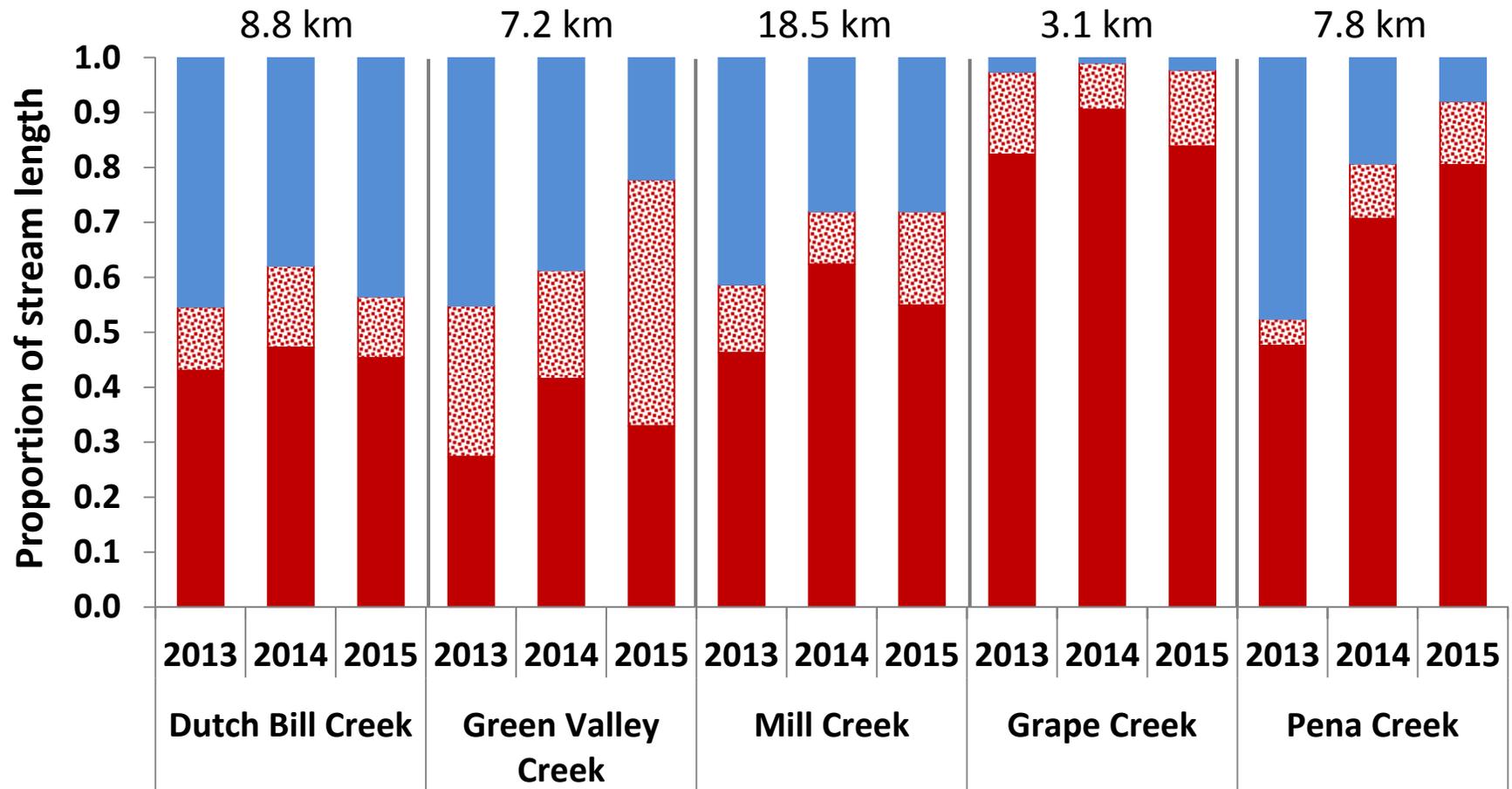
~~~~~ No Low Flow Data

0 0.5 1 Miles

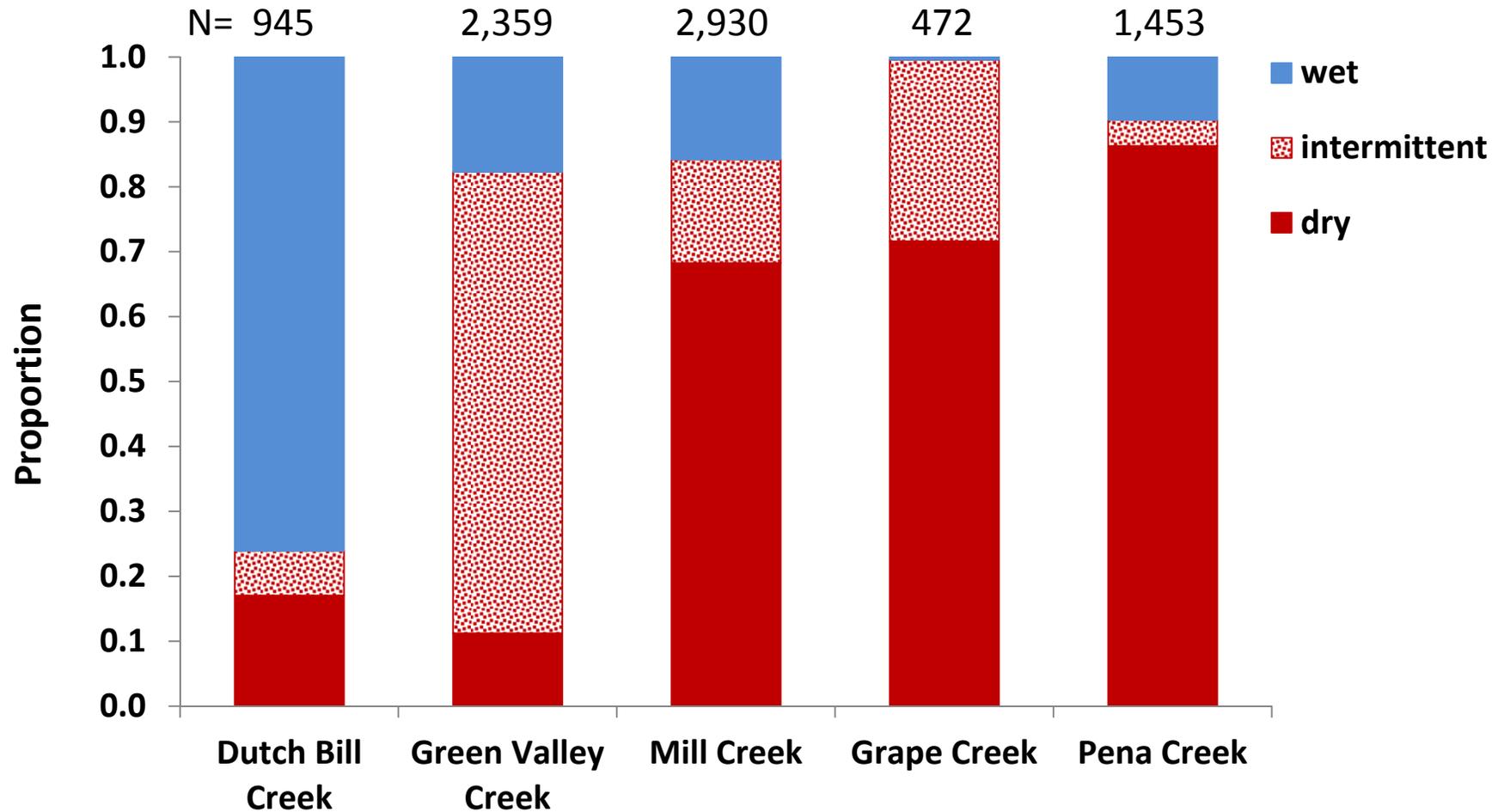
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Wetted habitat conditions in Russian River streams, 2013-2015



Proportion of summer juvenile salmonid observations in relation to wetted habitat condition in early September



Conclusions

- Conservation Measures can make a difference and the addition of flow enhancement projects from a few exceptional volunteers can make a **big** difference
 - Only a small amount of water can be the difference between life and death for coho salmon
 - 45 gpm = 0.1 cfs, 3 month total = 18 acre-feet
- But, the restoration and **conservation of functional ecosystems** is a more effective and reliable long term solution
 - Springs and seeps are the natural source of summer flows
 - Summer flows are a critical lifeline for the salmonid life-cycle
- VDI's have been a tremendous complement to the Emergency Regulations
 - But they are not likely to replace the need for **comprehensive regulation** of water uses

STILL Seeking Flow Enhancement Projects! (for next year)

**3 acre feet
is enough to
keep a Creek
wetted for
almost one
whole month.**



Please come talk to me if you are interested in releasing your stored water for flow enhancement!

“Flow for Fish” Rebate Program

Without the “Fish for Flow” program, none of the Flow Enhancement Projects could have been implemented this summer.

Thank you Jackson Family Winery for your original \$20,000 donation and
for an additional \$20,000 for 2015!!!



It's not over yet!!



- Please contact Mary Ann King if you'd like to donate equipment or time, and/or provide financial support

mking@tu.org or (510) 649-9987



Corinne Gray, Senior Environmental Scientist
CDFW Bay Delta Region
707-944-5526 corinne.gray@wildlife.ca.gov





Short-term Actions to Address Instream Flows

- Potential extension or expansion of emergency regulation should the drought continue into fall and winter, or beyond.



Long-term Actions to Address Instream Flows

- California Water Action Plan
 - Plan to enhance water supply reliability, restore damaged and destroyed ecosystems, and improve the resilience of California's infrastructure
 - Mark West Creek identified as one of five tributaries for enhanced stream flows statewide
 - Russian River Water & Fish Workshops:
 - Opportunity to learn more about funding opportunities, water rights, fishery resources
 - December 17 & January 26, 2016 in Santa Rosa
 - Flyers with more information available



Long-term Actions to Address Instream Flows

- Sustainable Groundwater Management Act (SGMA)
 - Requires formation of groundwater sustainability agencies (GSAs), and development of groundwater sustainability plans for 127 high and medium priority groundwater basins – Mark West Creek



Webpages and Contact Information

- Russian River Tributaries Emergency Regulation Contact Information:
 - 916-322-8422
 - RR_Tribs_Emergency_Reg@waterboards.ca.gov
- Russian River Tributaries Emergency Regulation Webpage:
http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/water_action_russianriver.shtml
- Informational Order Webpage:
www.waterboards.ca.gov/rrtribs.shtml

Questions?

