



**Sonoma
Water**

Dry Creek Habitat Enhancement

PHYSICAL MONITORING AND FISH MONITORING

JANUARY 12, 2026

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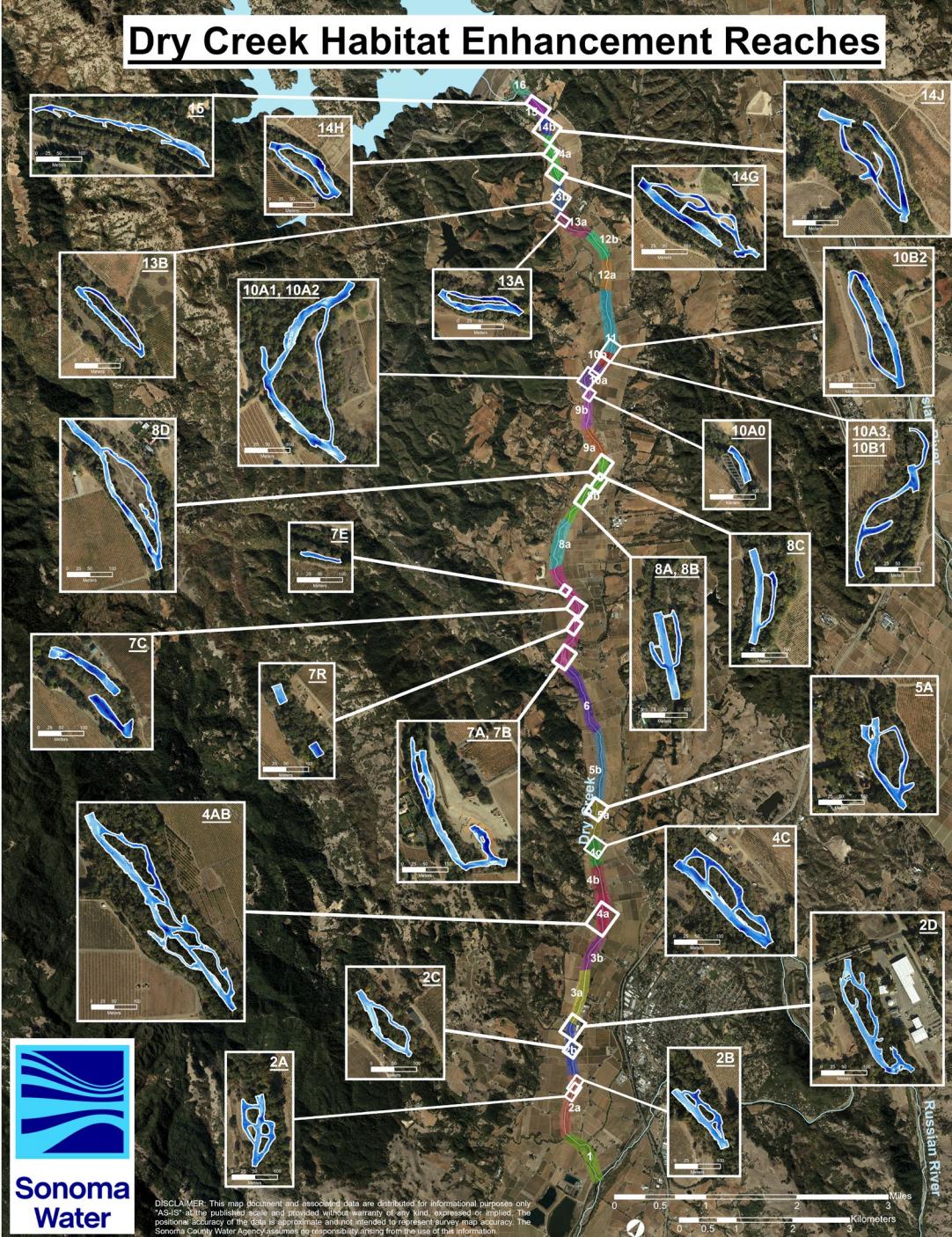


Dry Creek Habitat Enhancement Project Summary

- 2012
- 2013
- 2014
- 2016
- 2017
- 2018
- 2019
- 2021
- 2022
- 2023
- 2024

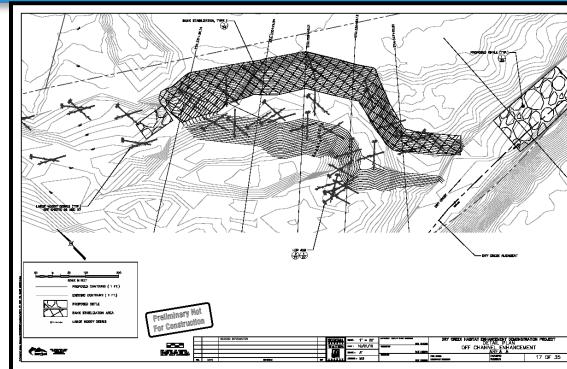


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Three types of monitoring

- **Implementation (as built)** – Constructed per approved design?



- **Effectiveness (habitat)** – Are desired habitat conditions being created?



- **Validation (biological response)** – Are fish benefiting?



How do we evaluate habitat?

- Dry Creek Adaptive Management Plan
 - Primary metrics
 - Depth: 0.5 – 4.0 ft
 - Velocity: <0.5 ft/s
 - Aquatic habitat shelter
 - Framework
 - Evaluate
 - Rate
 - Maintain

Dry Creek Adaptive Management Plan (AMP)

Final

Prepared for
Sonoma County Water Agency

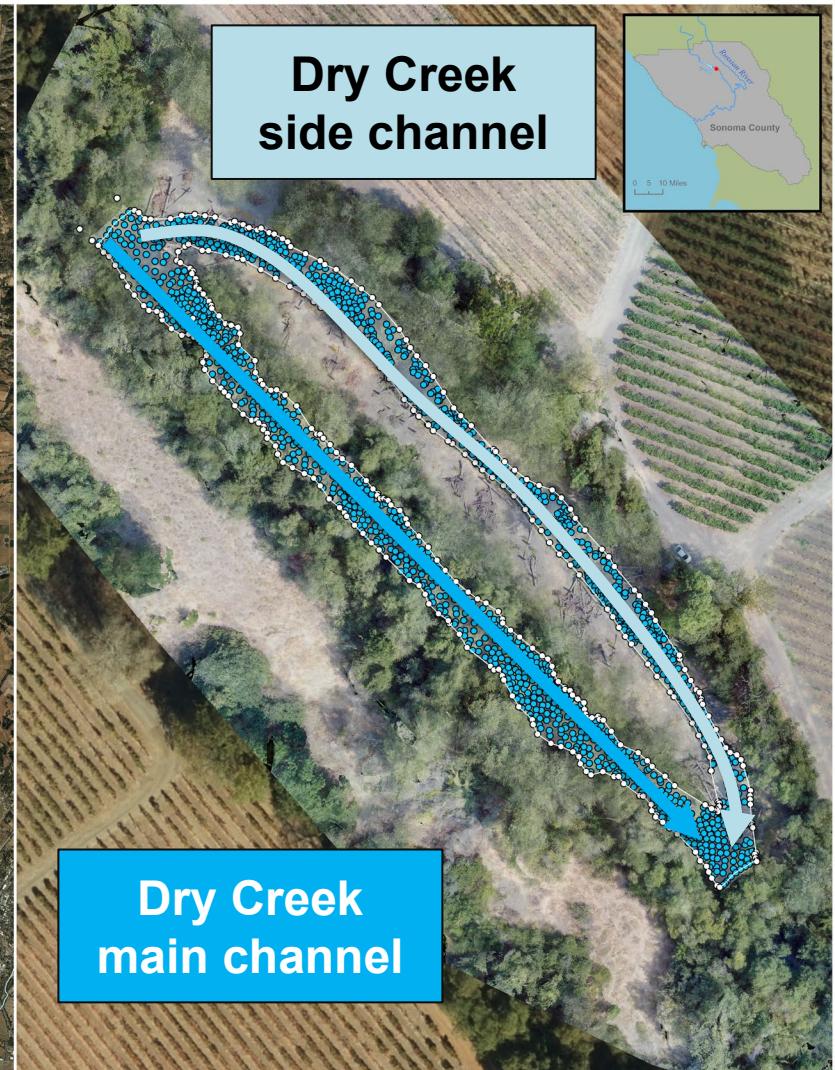
Prepared by
Marc Porter, David Marmorek, Darcy Pickard and Katherine Wieckowski
ESSA Technologies Ltd.
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Vancouver, BC V6J 5C6

May 9, 2014

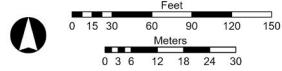


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Map Date: 11/24/2025

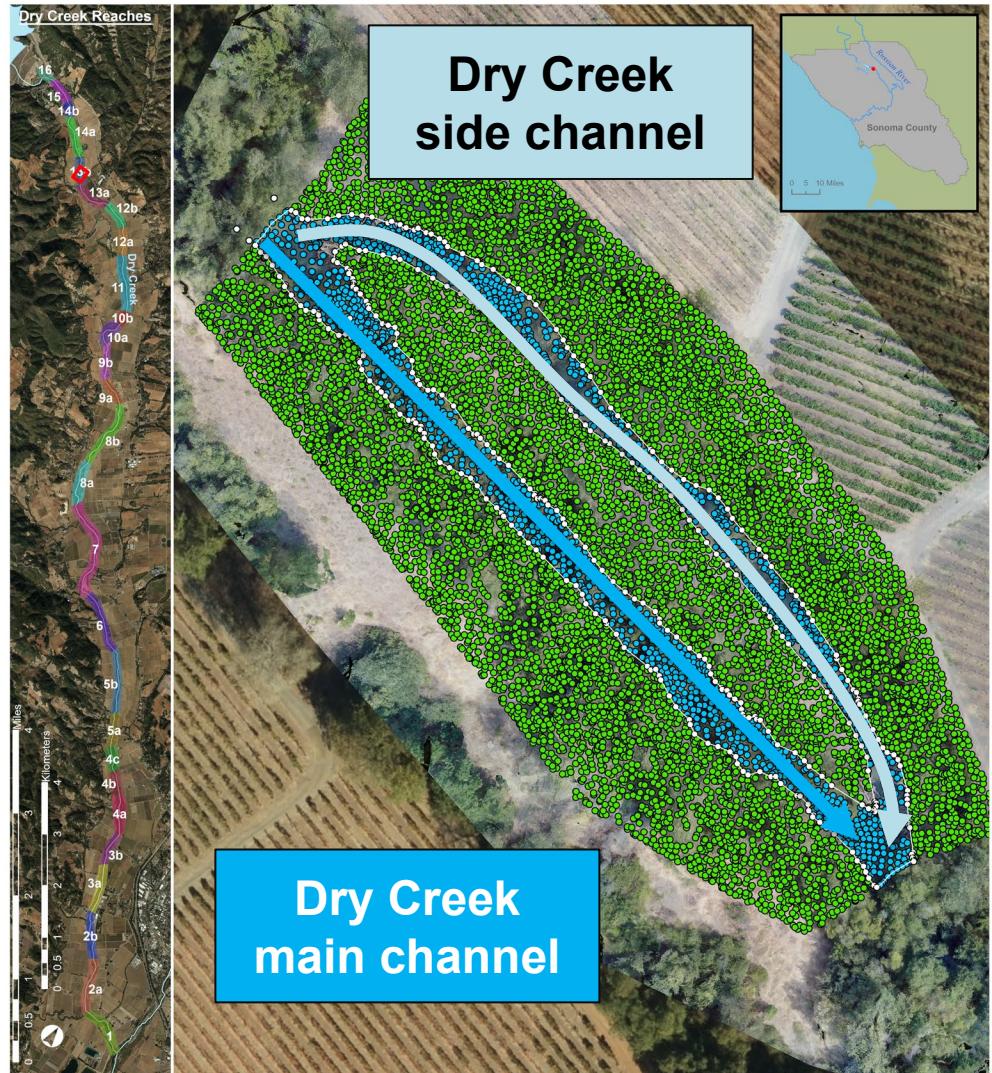


Post-Effective Flow, July 2024



Reach Name: Foley, Gallo
Project Reach: 04
Enhancement Reach: 06
Initial Flow Reach: 13b
River Miles: 12.23 (River Kilometer 19.69)
Reach Length: 722 ft (220 m)

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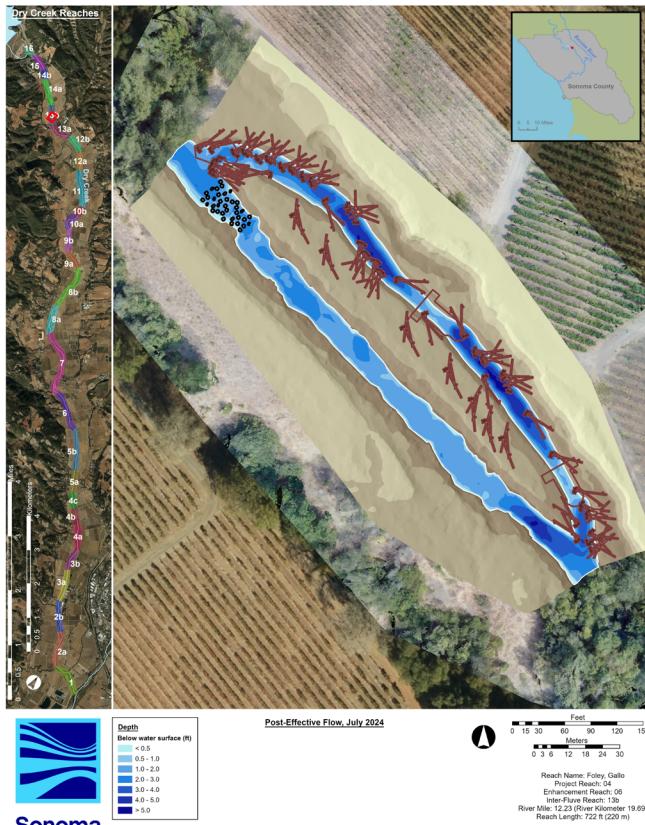


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Map Date: 11/24/2025

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Depth Velocity Shelter



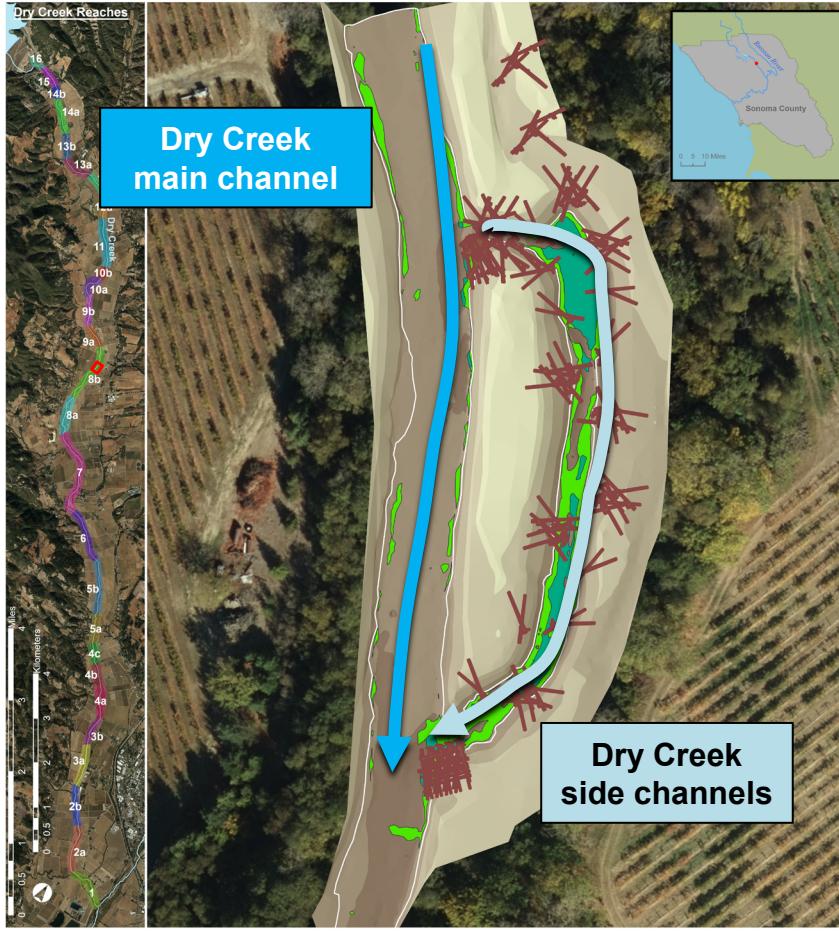
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Optimal Depth and Velocity

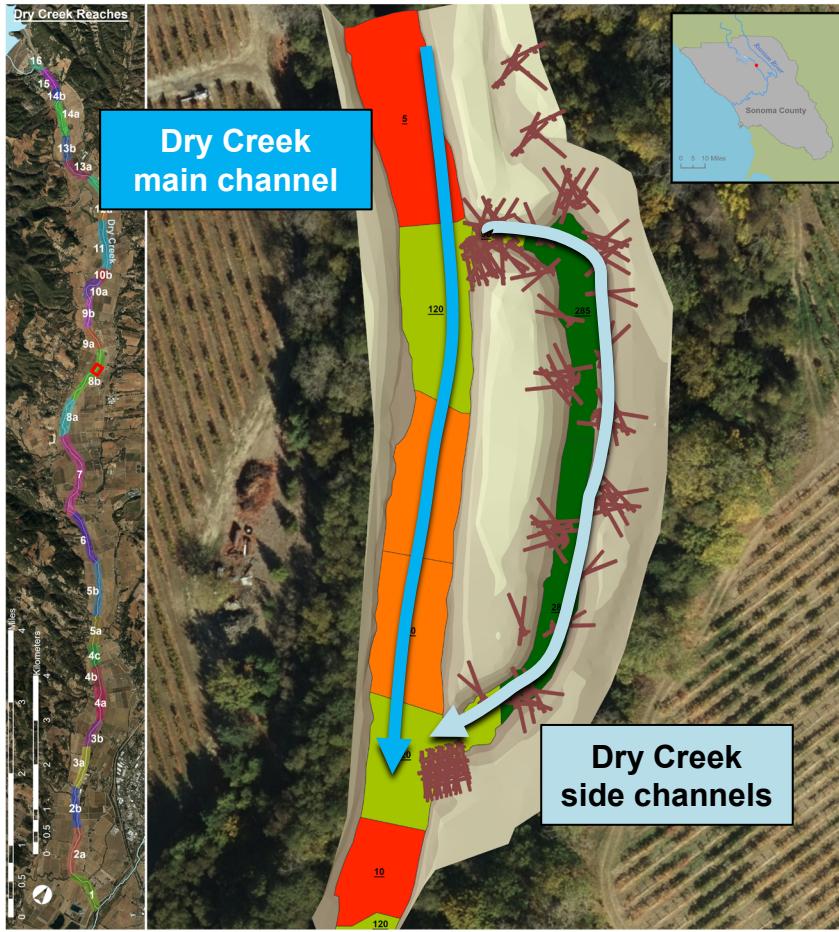
24% of area
meets optimal
depth and
velocity



50% of area
meets optimal
depth and
velocity

Aquatic Habitat Shelter

79 mean
shelter score
for all habitat
types



105 mean
shelter score
for all habitat
types



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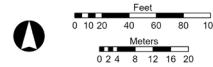


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Map Date: 1/1/2025

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Post-Effective Flow, August 2021



Reach Name: Meyer
Project Reach: 02
Enhancement Reach: 03
Inter-Fluve Reach: 08
River Mile: 8.59 (River Kilometer 13.82)
Reach Length: 475 ft (145 m)



Dry Creek Habitat Enhancement Reaches

Upper segment
Dam influence



Middle segment
Dam influence
Tributary input

Lower segment
Dam influence
Tributary input
RR backwater

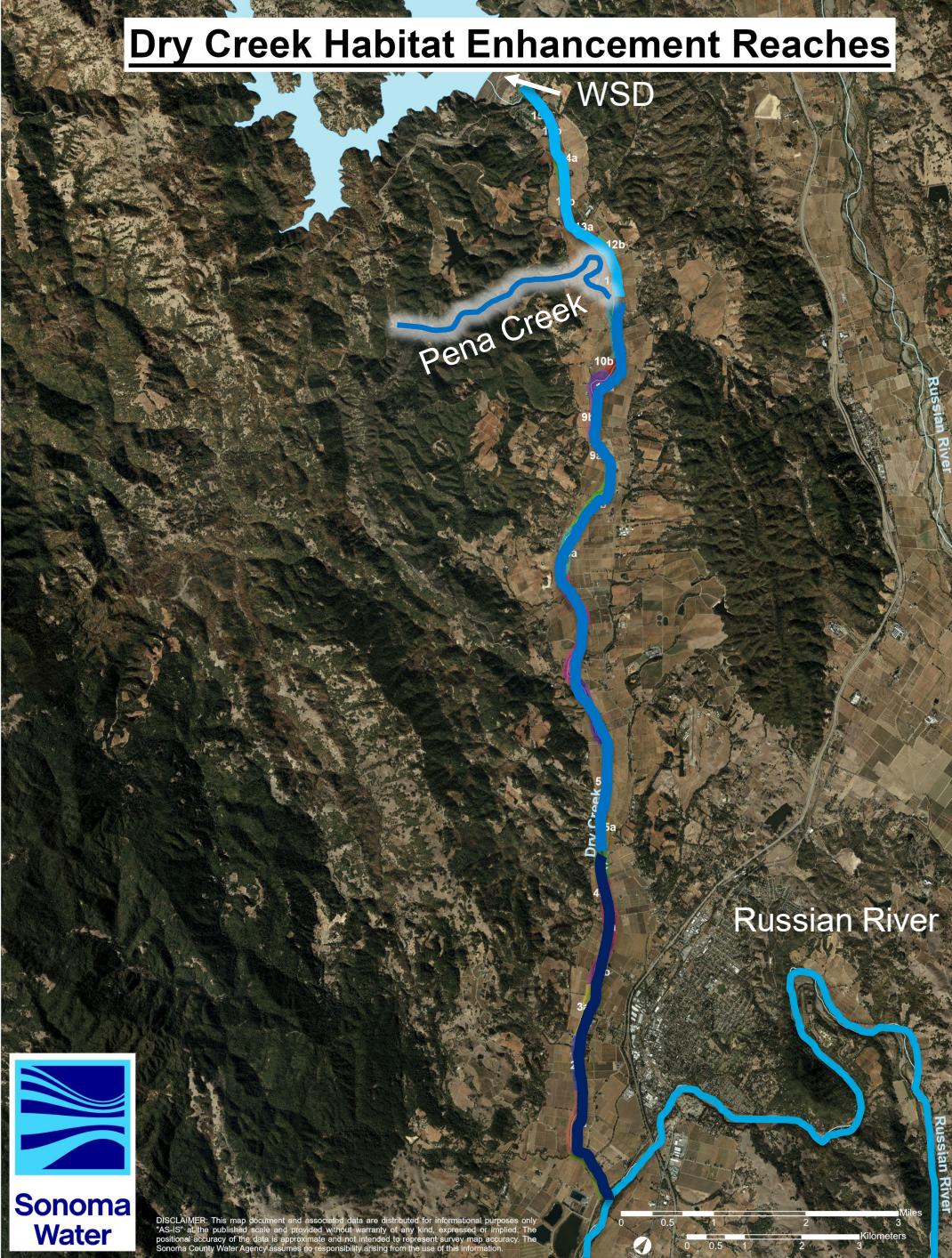


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Dry Creek Habitat Enhancement Reaches

Upper segment

Stable Occasional maintenance

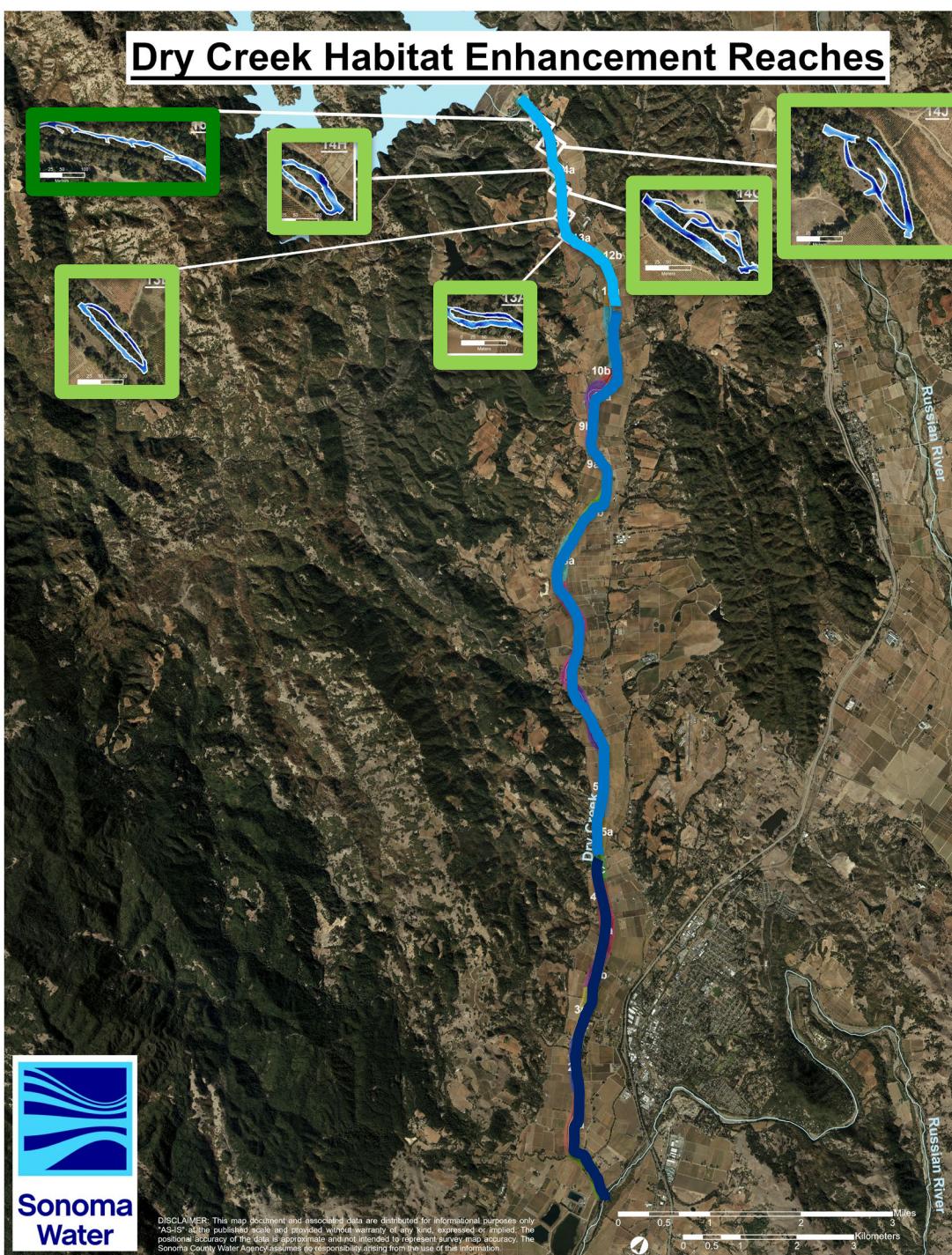
Middle segment

Dam influence
Tributary input

Lower segment
Dam influence
Tributary input
RR backwater



15	Excellent
14J	Good
14H	Good
14G	Good
13B	Good
13A	Good



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Dry Creek Habitat Enhancement Reaches

Upper segment
Dam influence

Stable
Occasional
maintenance

Middle segment
Dam influence
Tributary input

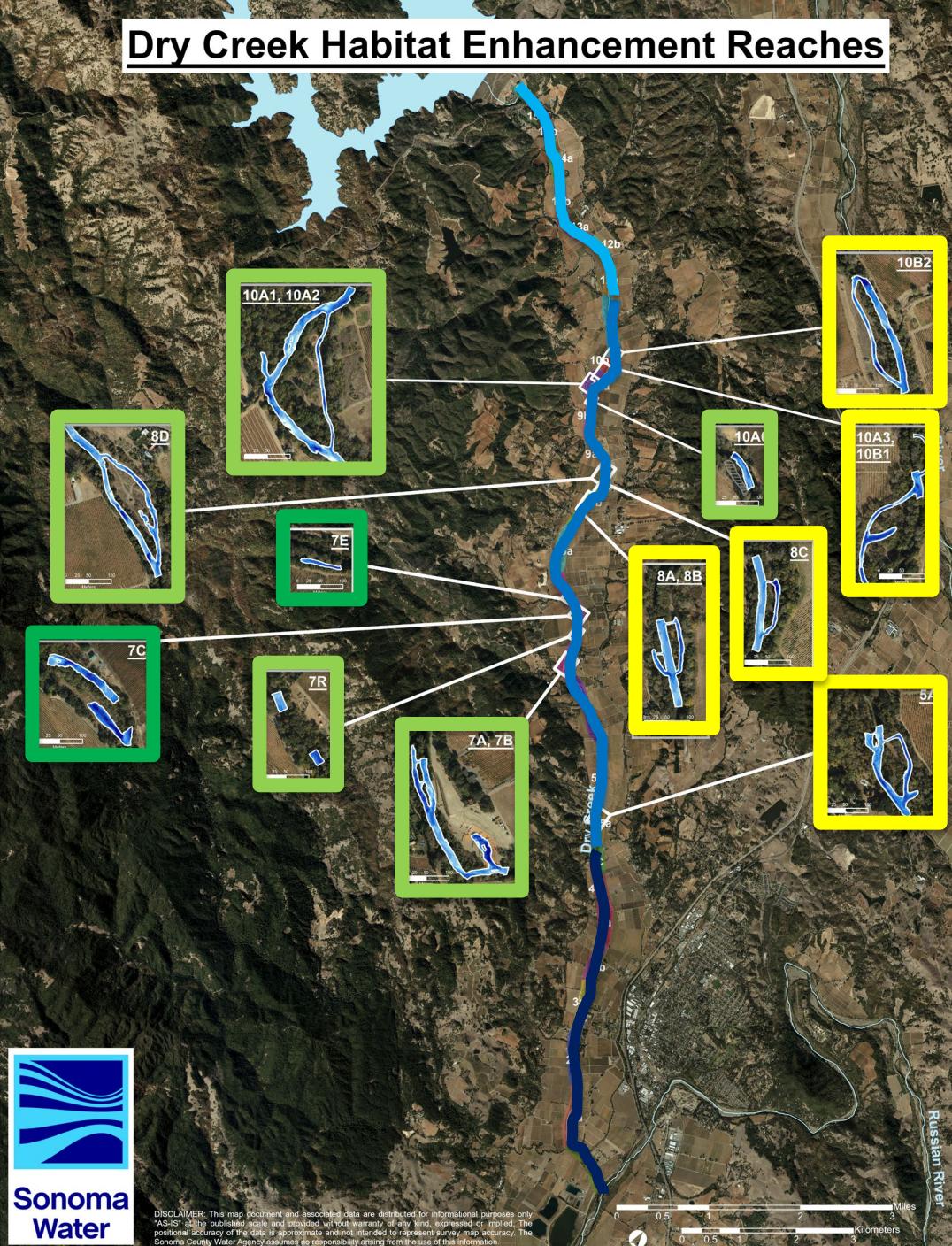
Aggradation
Regular
maintenance

Lower segment
Dam influence
Tributary input
RR backwater



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10B2	Fair
10A3, 10B1	Fair
10A1, 10A2	Good
10A0	Good
8D	Good
8C	Fair
8A, 8B	Fair
7E	Excellent
7C	Excellent
7R	Good
7A, 7B	Good
5A	Fair

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0 0.5 1 2 3 Miles
0 0.5 1 2 3 Kilometers

Dry Creek Habitat Enhancement Reaches

Upper segment
Dam influence

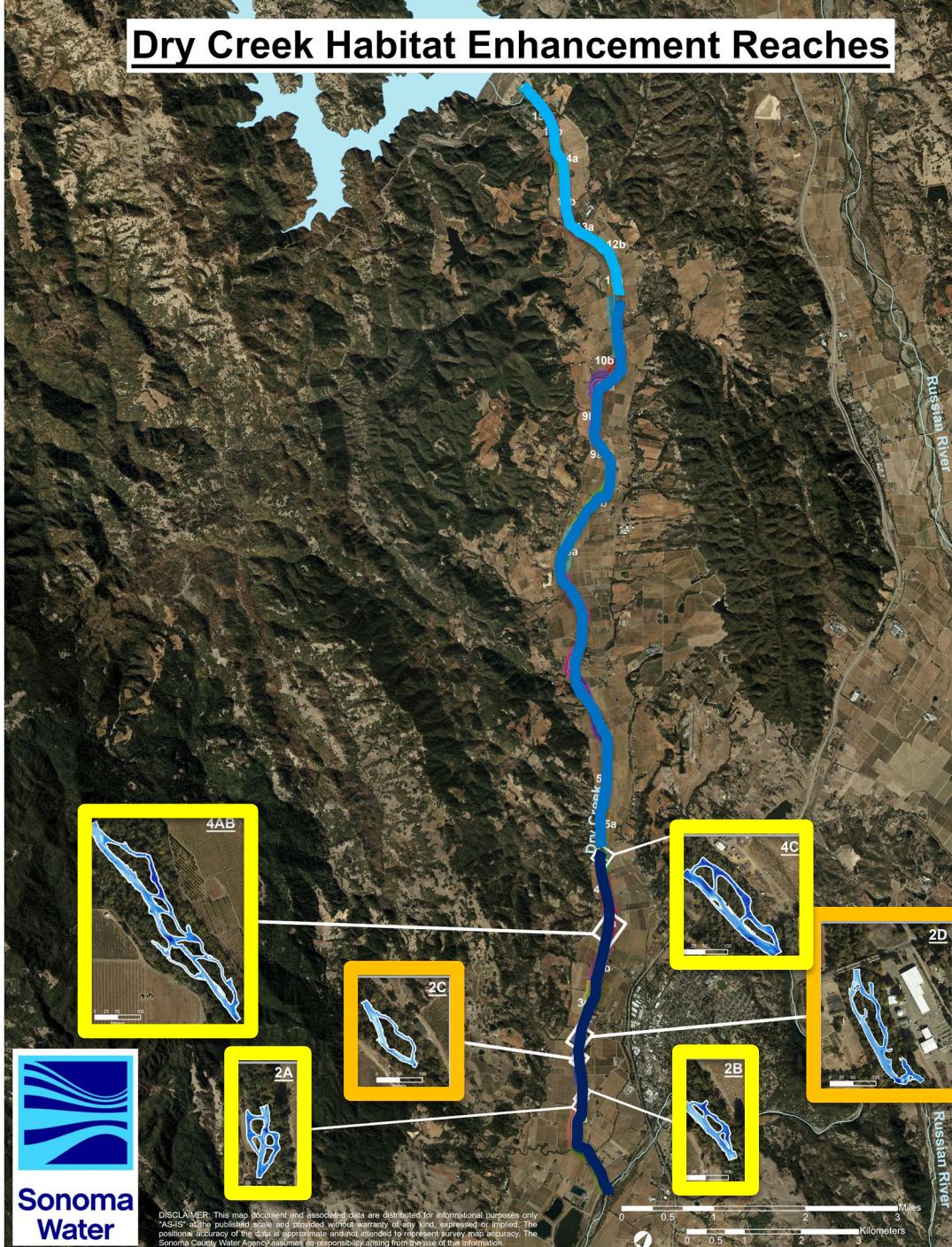
Stable
Occasional
maintenance

Middle segment
Dam influence
Tributary input

Aggradation
Regular
maintenance

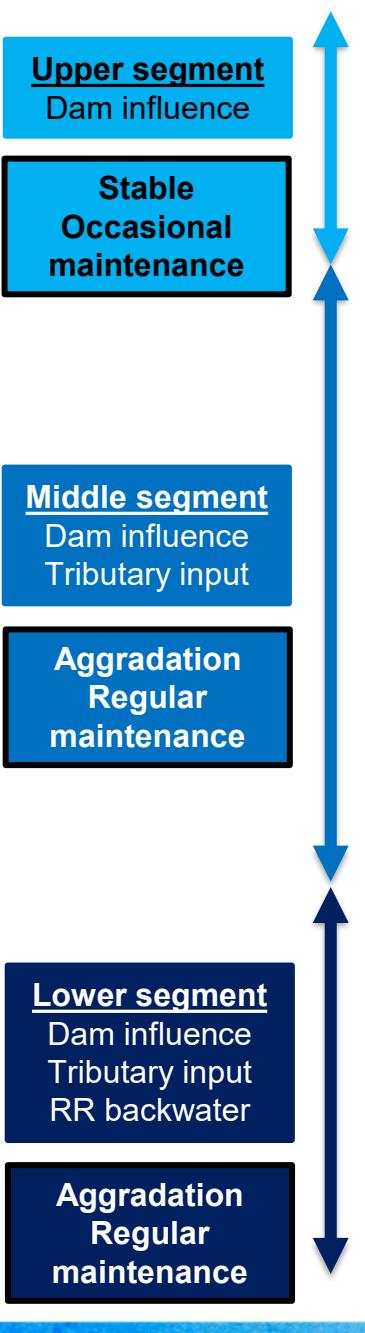
Lower segment
Dam influence
Tributary input
RR backwater

Aggradation
Regular
maintenance



4C	Fair
4AB	Fair
2D	Poor
2C	Poor
2B	Fair
2A	Fair

Dry Creek Habitat Enhancement Reaches



Reach	Rating
15	Excellent
14J	Good
14H	Good
14G	Good
13B	Good
13A	Good
10B2	Fair
10A3, 10B1	Fair
10A1, 10A2	Good
10A0	Good
8D	Good
8C	Fair
8A, 8B	Fair
7E	Excellent
7C	Excellent
7R	Good
7A, 7B	Good
5A	Fair
4C	Fair
4AB	Fair
2D	Poor
2C	Poor
2B	Fair
2A	Fair

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