

Radio Telemetry of Hatchery-Reared and Stream Acclimated Chinook Salmon and Summer Steelhead Smolts from Ochoco Creek, 2022

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Presented by Jen Luke
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Introduction

- Background:
 - Improvement in SWW collection rates in 2021
 - Chinook Salmon 30-50% 102,000 released
 - Steelhead 14-23% 115,000 released
 - Crooked River releases much lower
 - Chinook Salmon 12-13% 20,128
 - Steelhead 2-3% 19,300



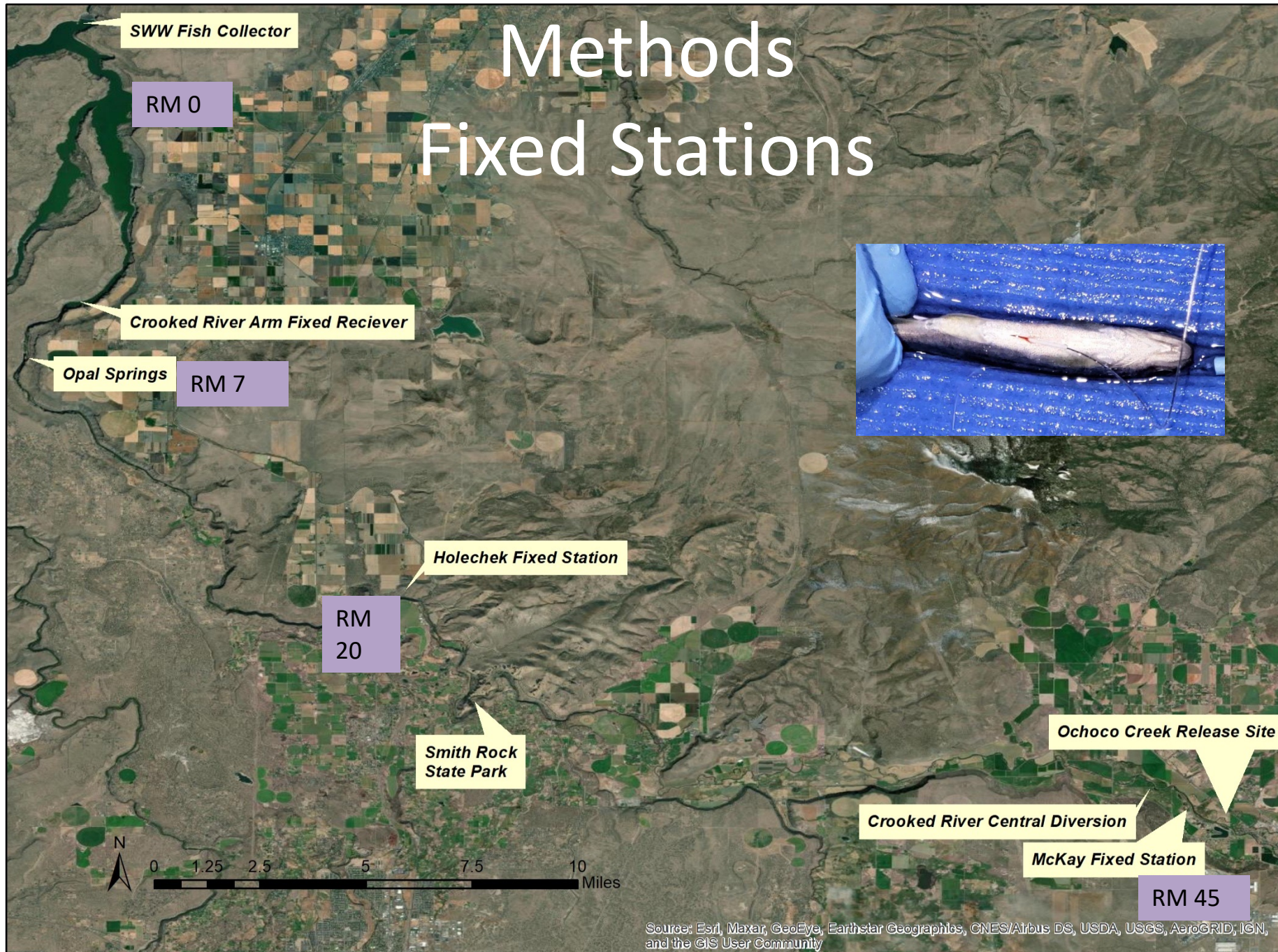
Introduction

- Objectives:
 - Track smolts to determine movement patterns in the Crooked River from Prineville to SWW
 - Identify movement pinch points



Methods

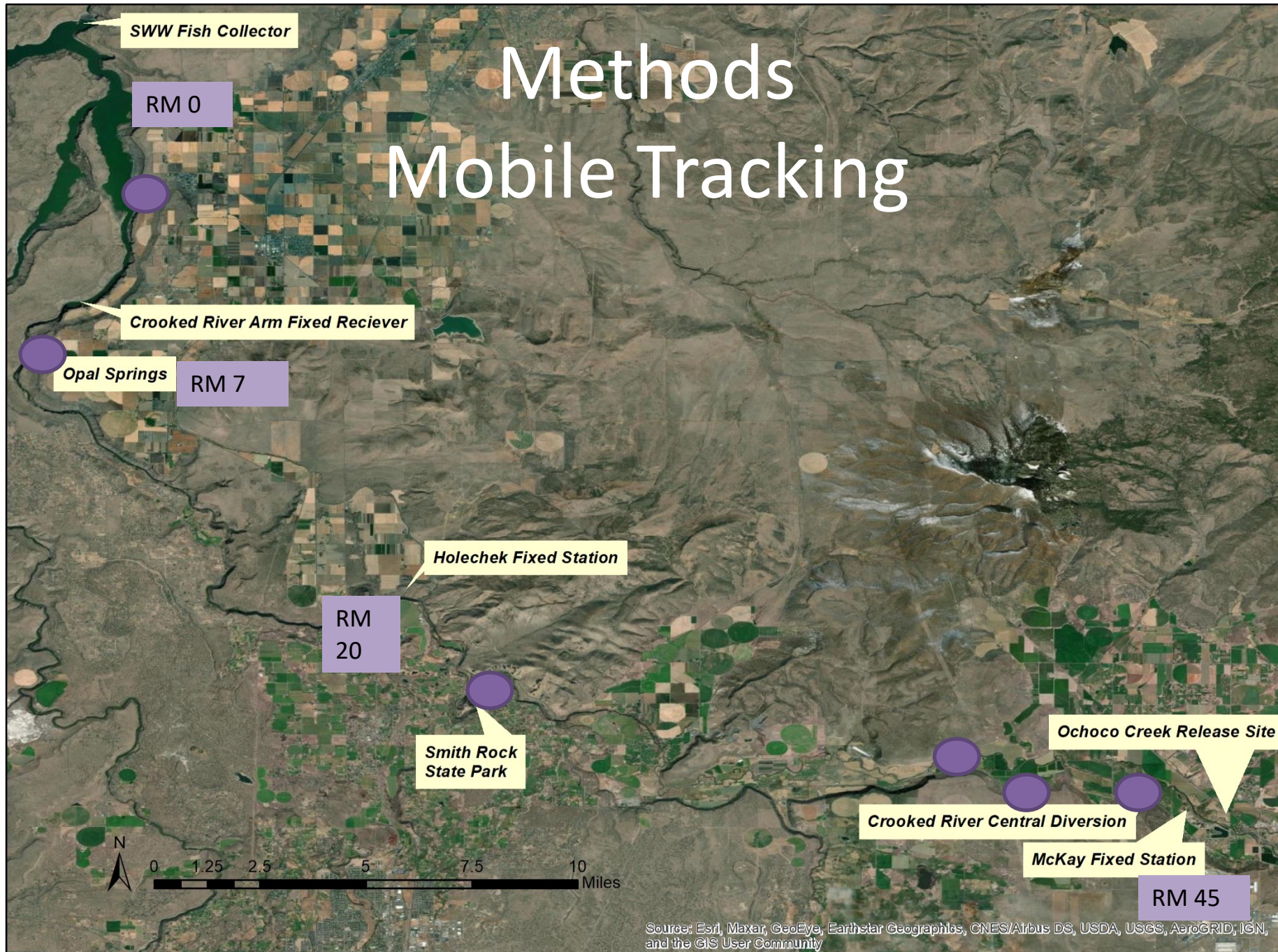
Fixed Stations



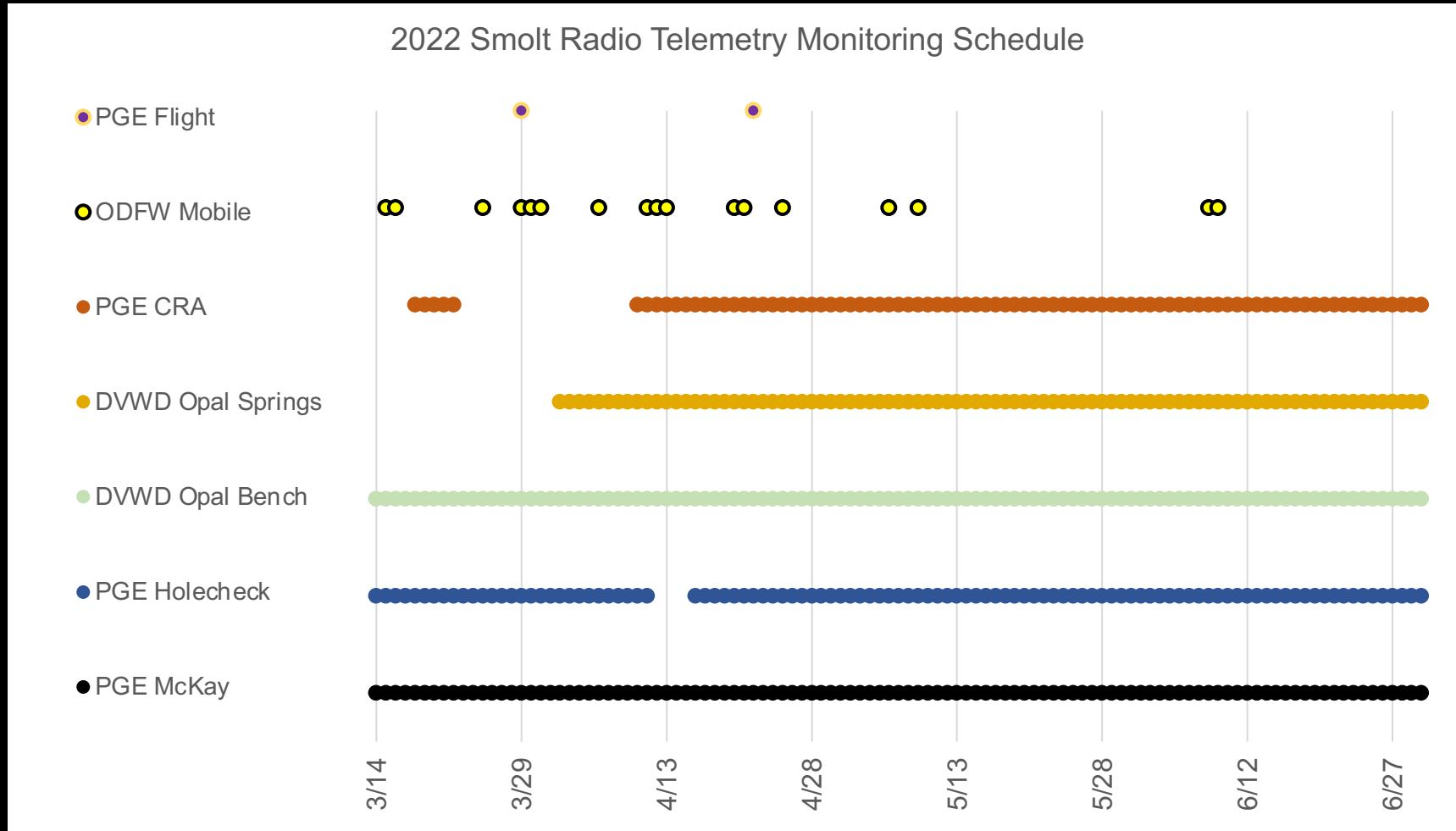


Methods

Mobile Tracking



Monitoring Schedule

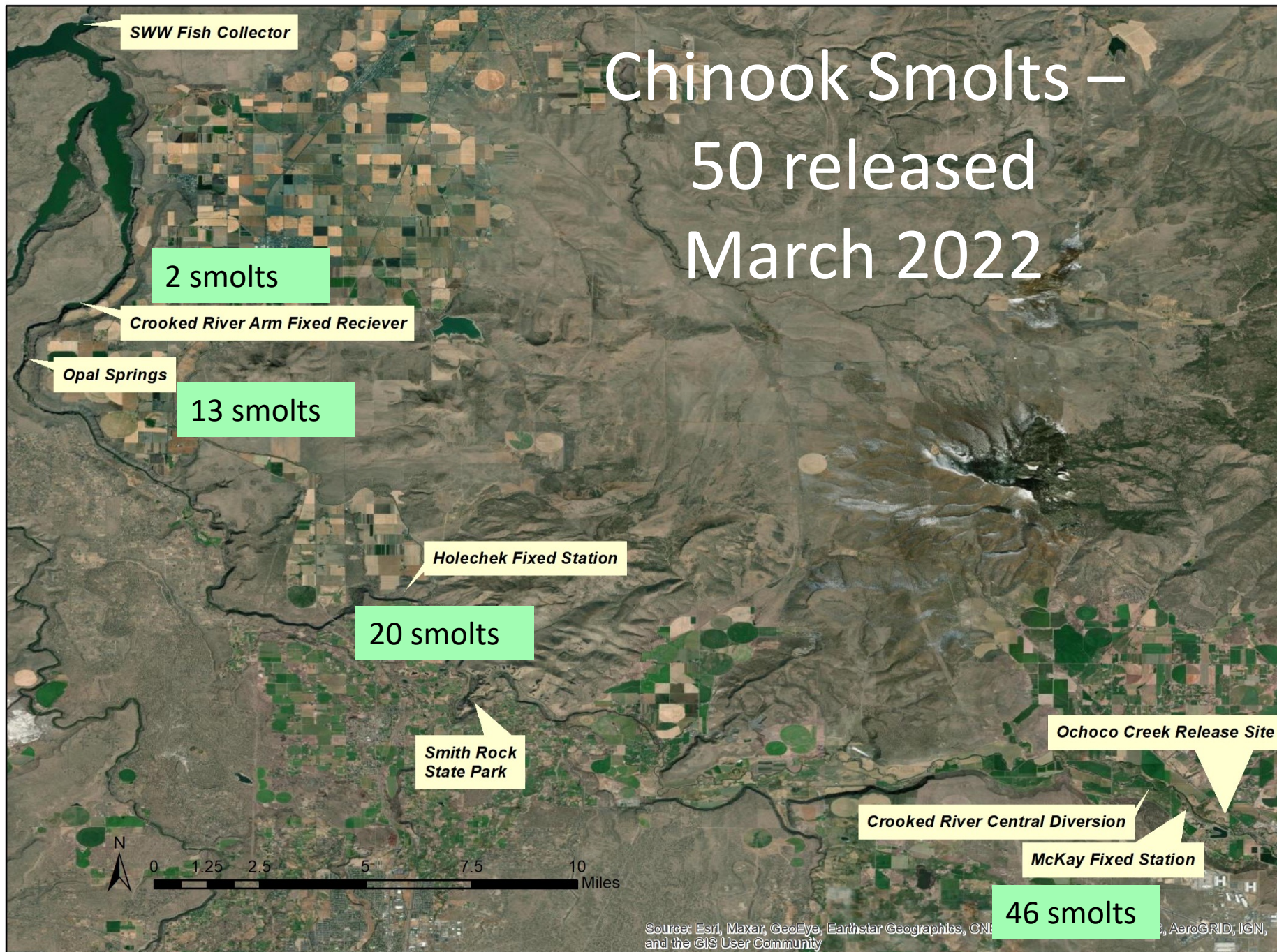


Release Group Summary

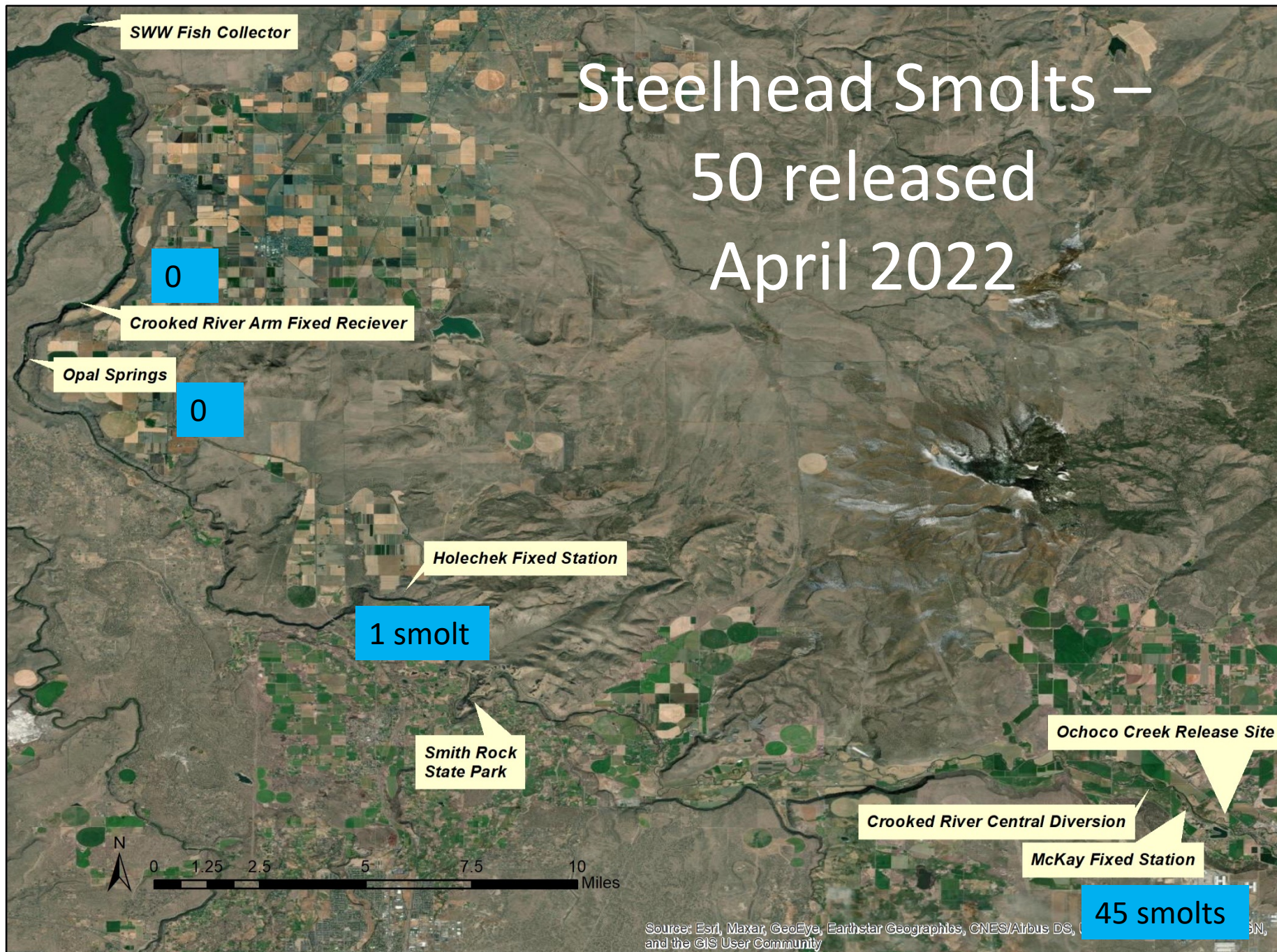
	Number Released	McKay	Holechek	Opal Springs	Crooked Arm
CHS	50	46	20	13	2
3/14	19	18	10	3	
3/28	31	28	10	10	2
StS	50	45	1		
4/6	21	17			
4/8	29	28	1		



Chinook Smolts – 50 released March 2022



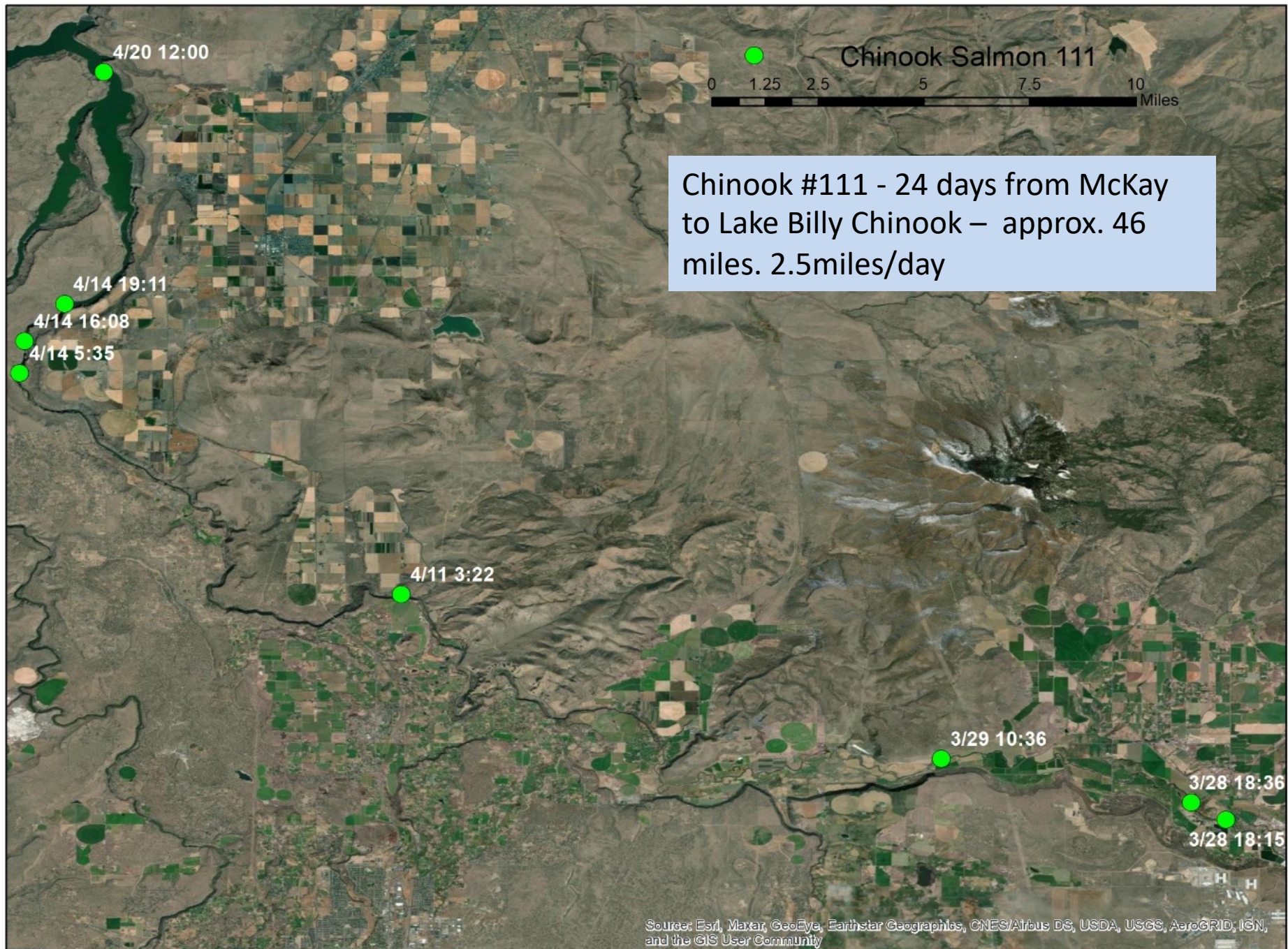
Steelhead Smolts – 50 released April 2022

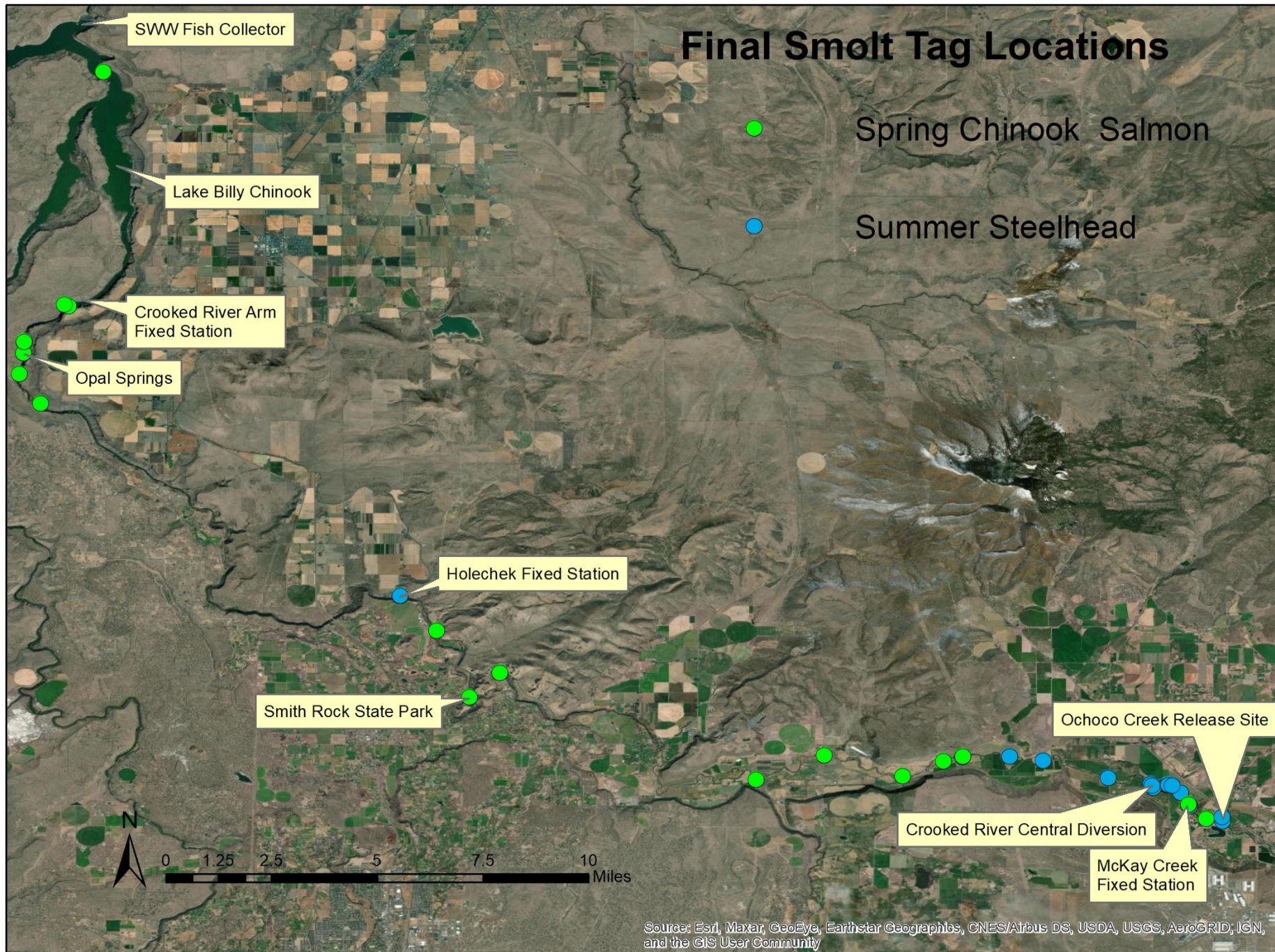


Days to Location Post-Release

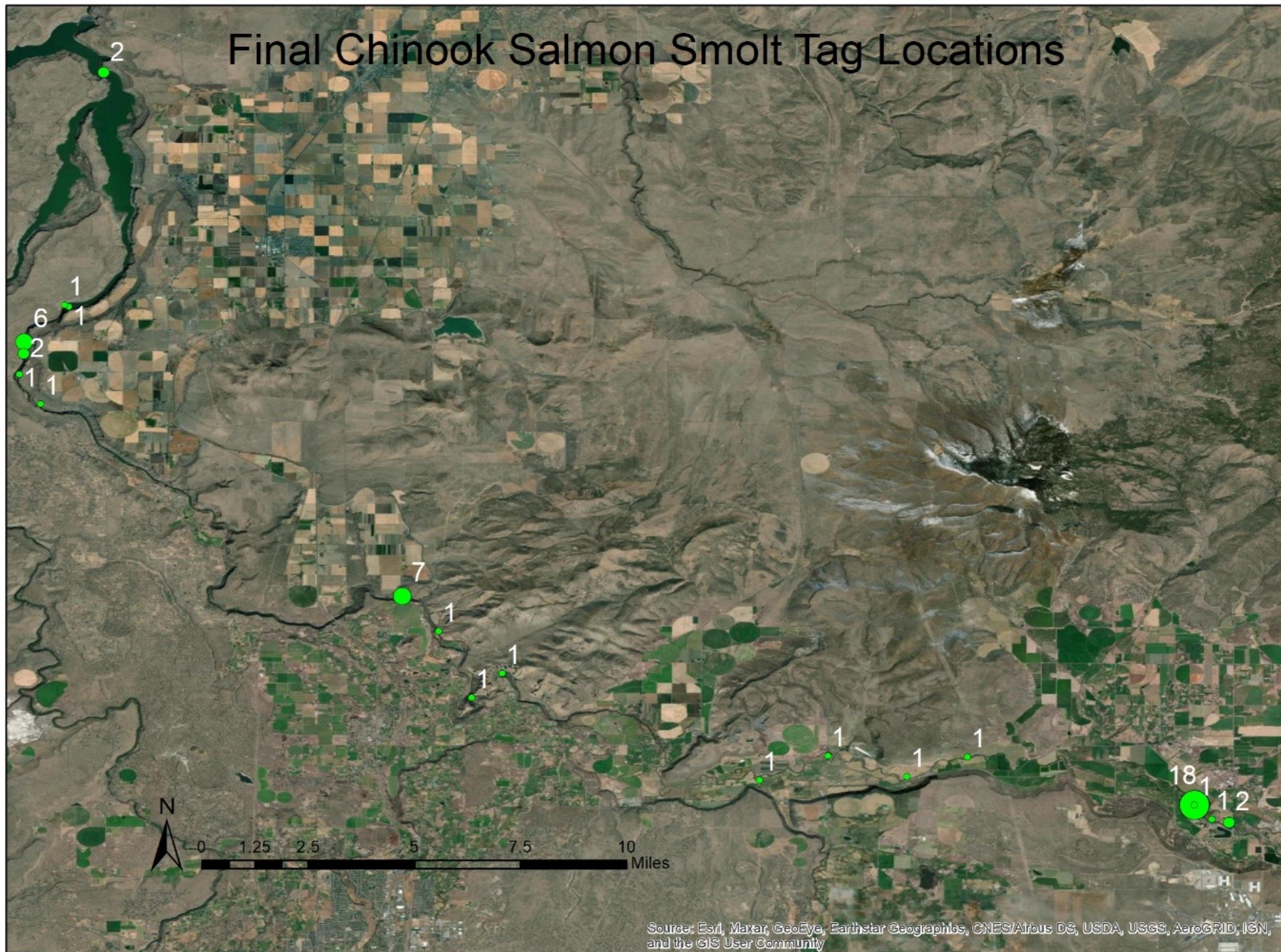
		McKay	Holecheck	Opal Springs	CRA
Chinook Release 3/14	Number	18	10	3	0
	Mean	N/A	5.84	8.45	N/A
Chinook Release 3/28	Number	28	10	10	2
	Mean	0.04	6.71	16.58	27.68
Steelhead 4/6	Number	11			
	Mean	0.59			
Steelhead 4/8	Number	16	1		
	Mean	0.12	30.75		



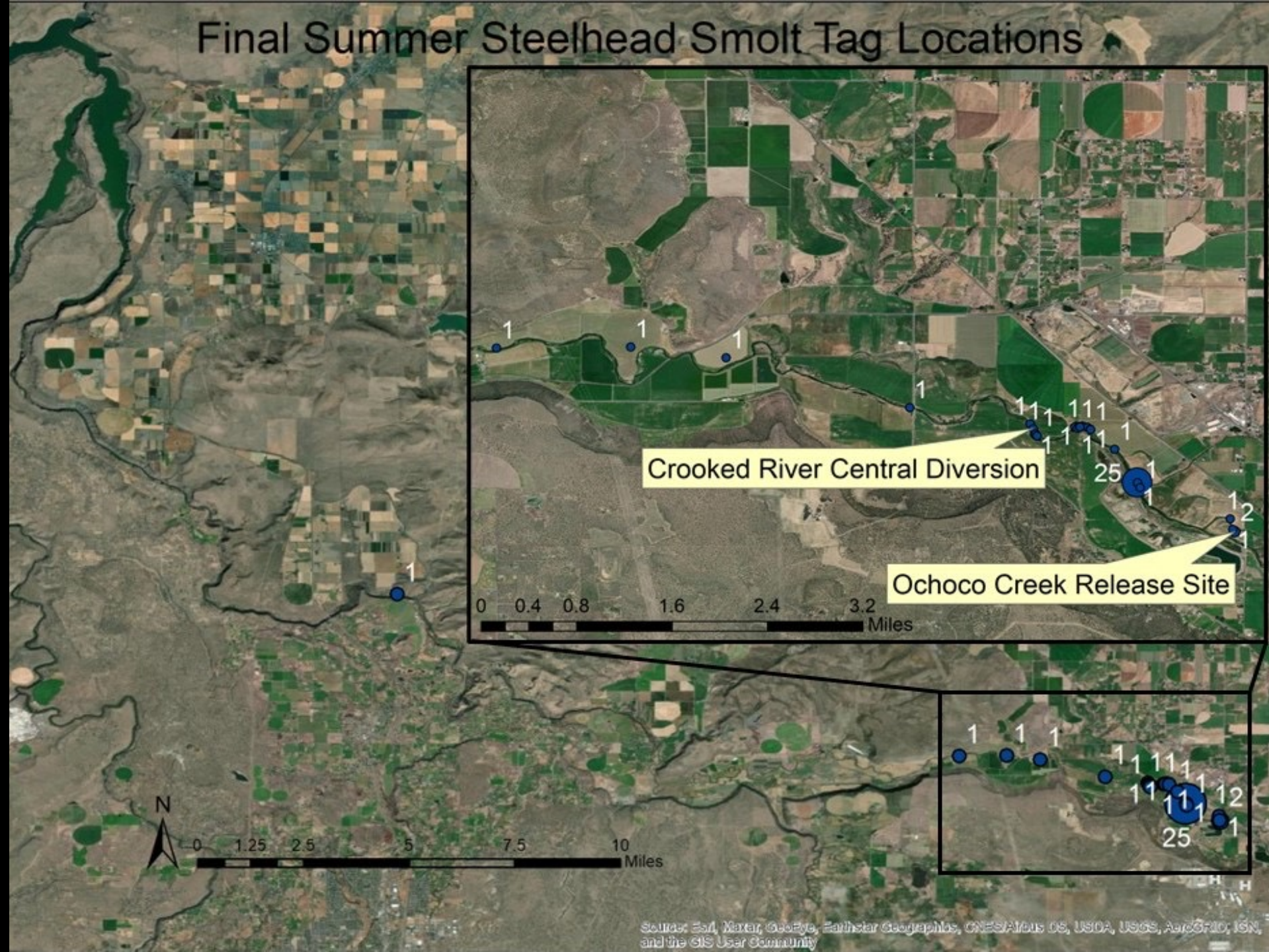




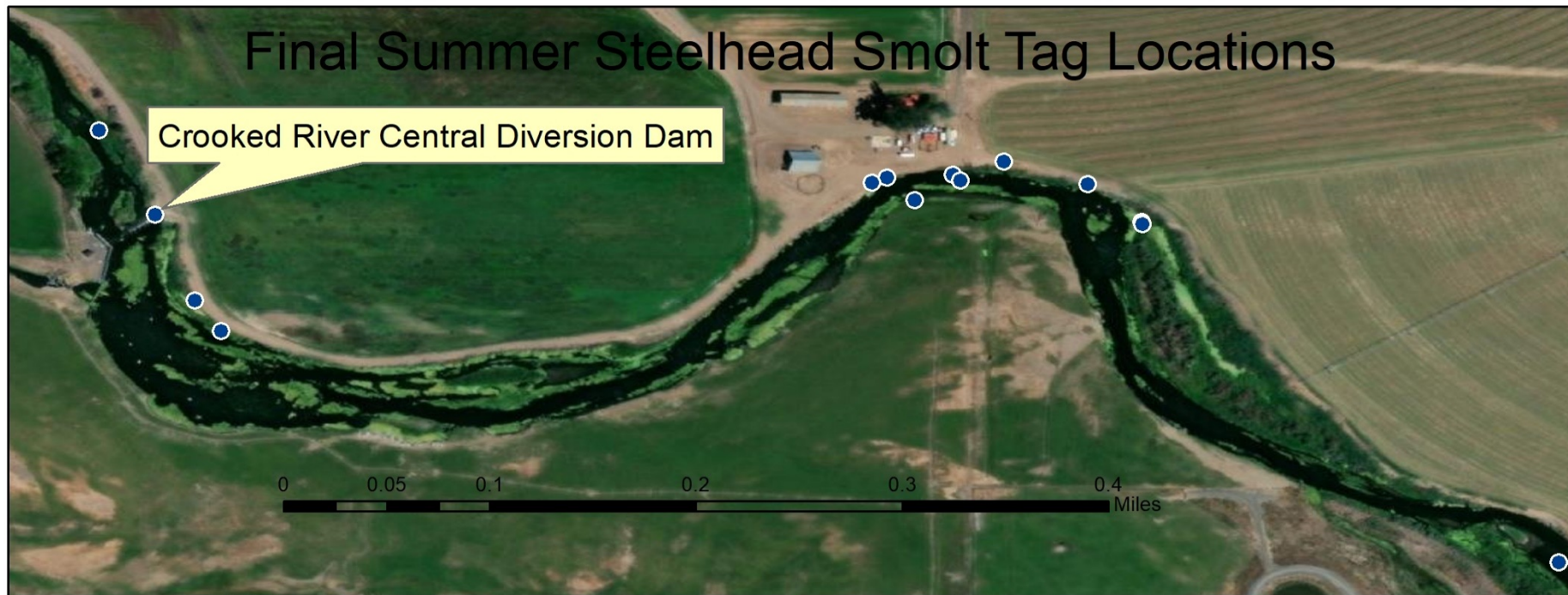
Final Chinook Salmon Smolt Tag Locations



Final Summer Steelhead Smolt Tag Locations



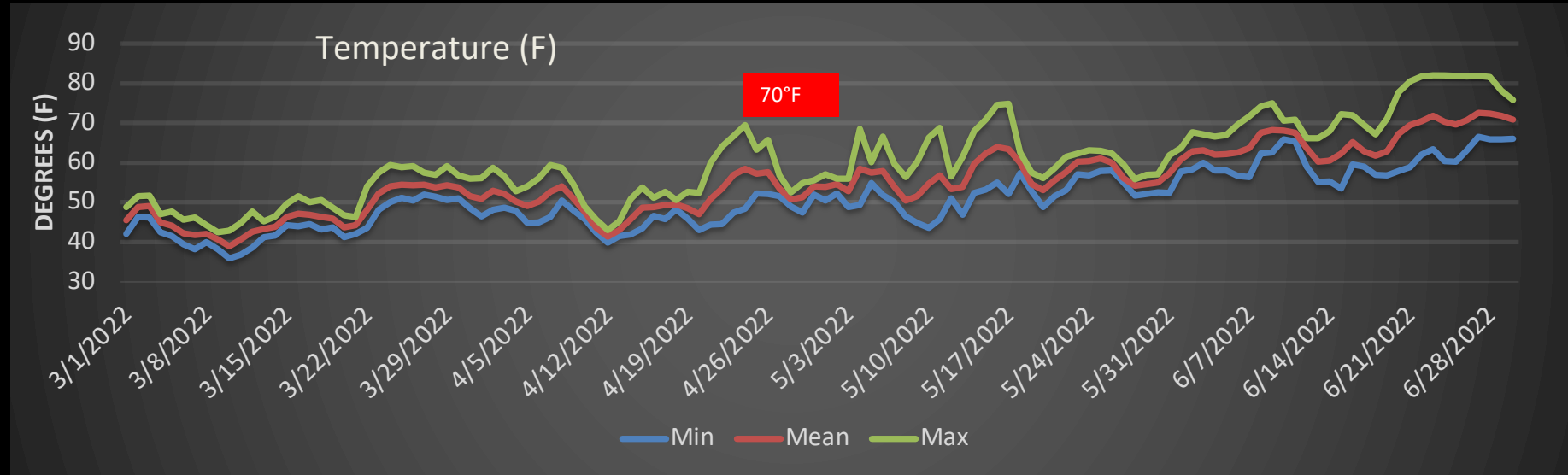
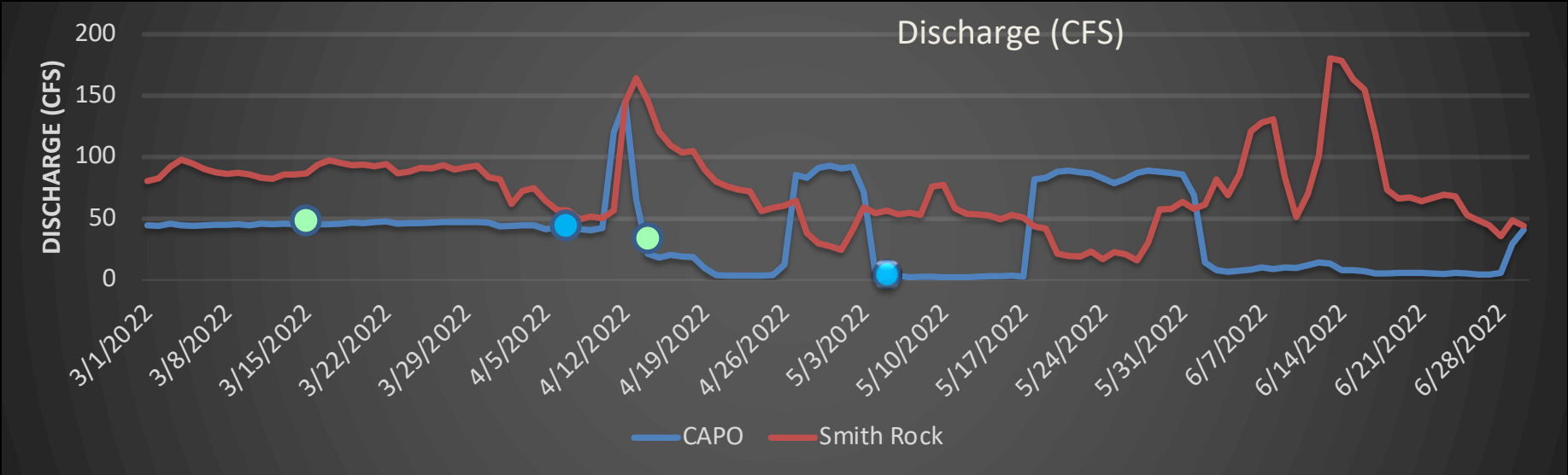
Final Summer Steelhead Smolt Tag Locations



164 cfs CRSO 4/13/2022







Recommendations

- Receiver times/operation
- mobile track in better water year
- Fish passage at Crooked River Central impoundment and weir
- Water management considerations
 - Winter flows during storage season
 - Monitor pulse flows
 - Consider pulse flows for adults





Acknowledgements

- PGE
- Deschutes Valley Water District
- Deschutes Land Trust
- Silva Family



