



# Aquatic Species Restoration Plan (ASRP) Monitoring Program Updates

Victoria Knorr

May 4, 2023



# M&AM BACKGROUND / PURPOSE AND NEED

- **ASRP M&AM Plan:** Ecology publication located in [2021 Science Review Team Guidance](#), Appendix G
- **Monitoring:** “to evaluate the effects of actions that restore habitat and re-establish natural processes that form aquatic habitats through time.”
- **Adaptive Management:** “...a structured, iterative process of robust decision making in the face of uncertainty. It aims to reduce uncertainty over time through system monitoring.”

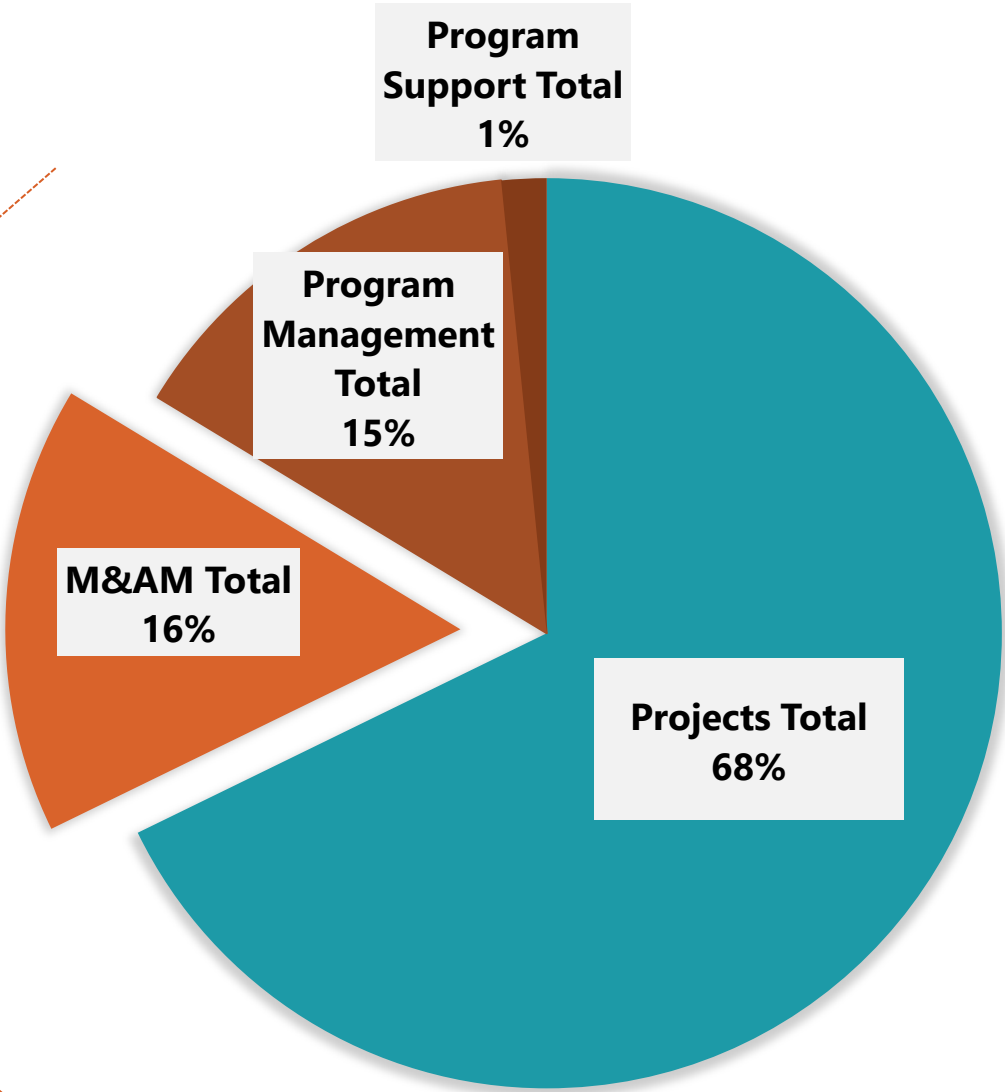
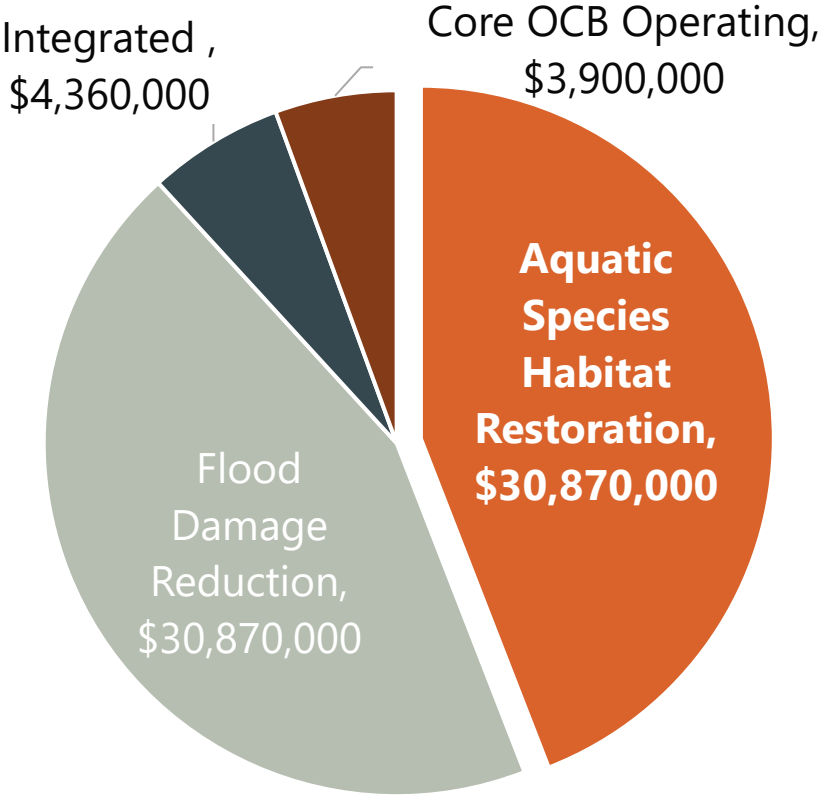
# 2021 M&AM PLAN: KEY POINTS

- Feedback Loops (to inform future actions)
  - Annual Science Feedback Loop
  - 5-year Policy Feedback Loop (2021-2026)
- Three sampling programs (to monitor the system, ASRP)
  - Status and Trends
  - Project Effectiveness
  - Hypothesis Testing / Data Gaps

# M&AM 2023-25 SAMPLING PLANS

STATUS & TRENDS	S&T COST	PROJECT EFFECTIVENESS	PE COST
Salmon/Steelhead Juveniles	\$800,452	Sediment Wedge	\$306,000
Salmon/Steelhead Adults	\$1,022,555	Beaver Dam Analogs (BDAs)	\$400,000
Non-Native Fish Ecology	\$500,000	DATA GAPS / HYPOTHESIS TESTING	DG / HT COST
Stream-Associated Amphibians	\$250,000		
Western Toad Surveys	\$150,000		
OR Spotted Frog Surveys	\$200,000	Biotic responses to BDAs	\$169,300
Freshwater Mussel Surveys	\$150,000	Off-channel reconnection	\$100,000
Chehalis Thermalscape	\$200,000	Chinook Fry Trapping	\$600,000

# CONTEXTUALIZING THE COST

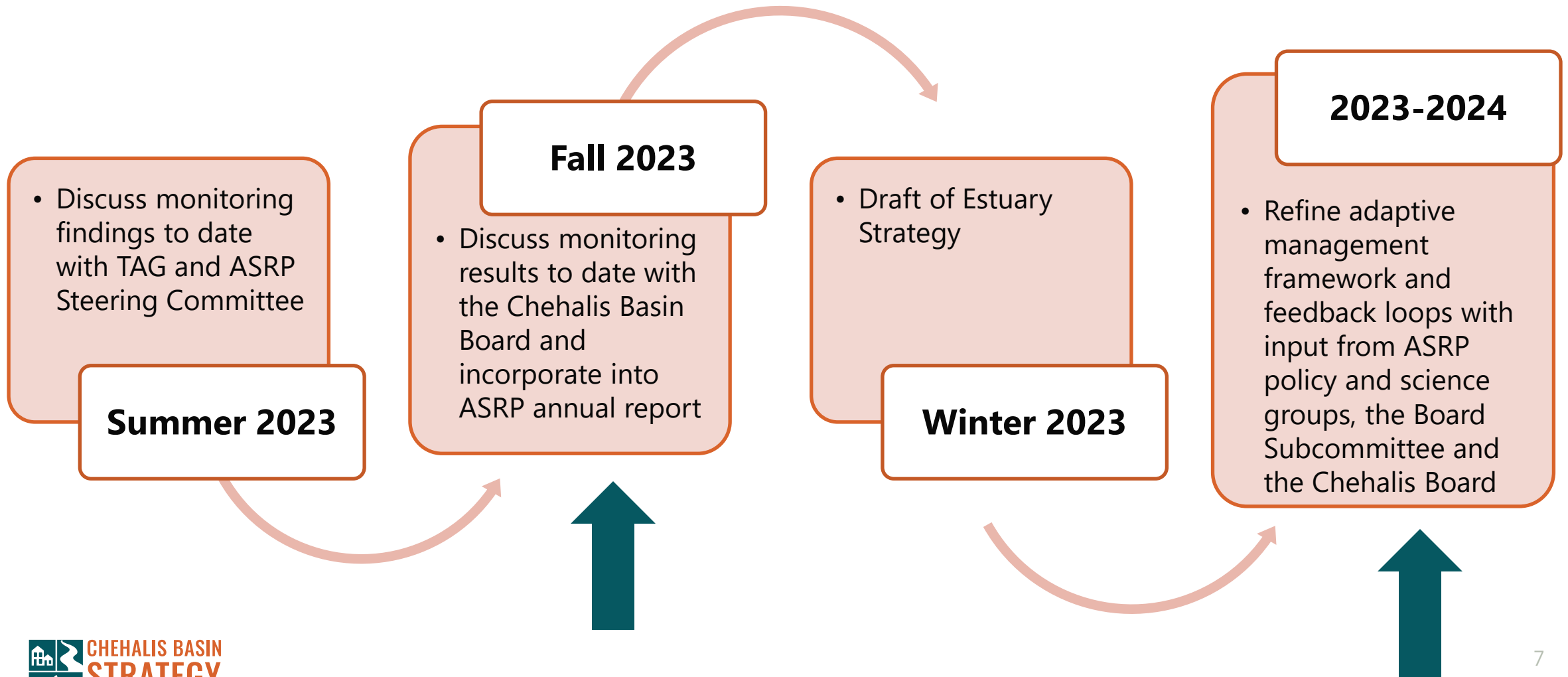


\$30.87M FOR ASRP

# TECHNICAL ADVISORY GROUP (TAG)

- Serves the ASRP Steering Committee
  - Science to inform decision-making
  - Comprised of expertise from fisheries to plants
- Primary charge: Monitoring & Adaptive Management (M&AM)
  - 2021 M&AM Plan for ASRP
  - Next steps
- Other topics:
  - Estuary Ecoregion
  - Protection and restoration prioritization and sequencing

# TAG AND M&AM NEXT STEPS





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# QUESTIONS OR DISCUSSION





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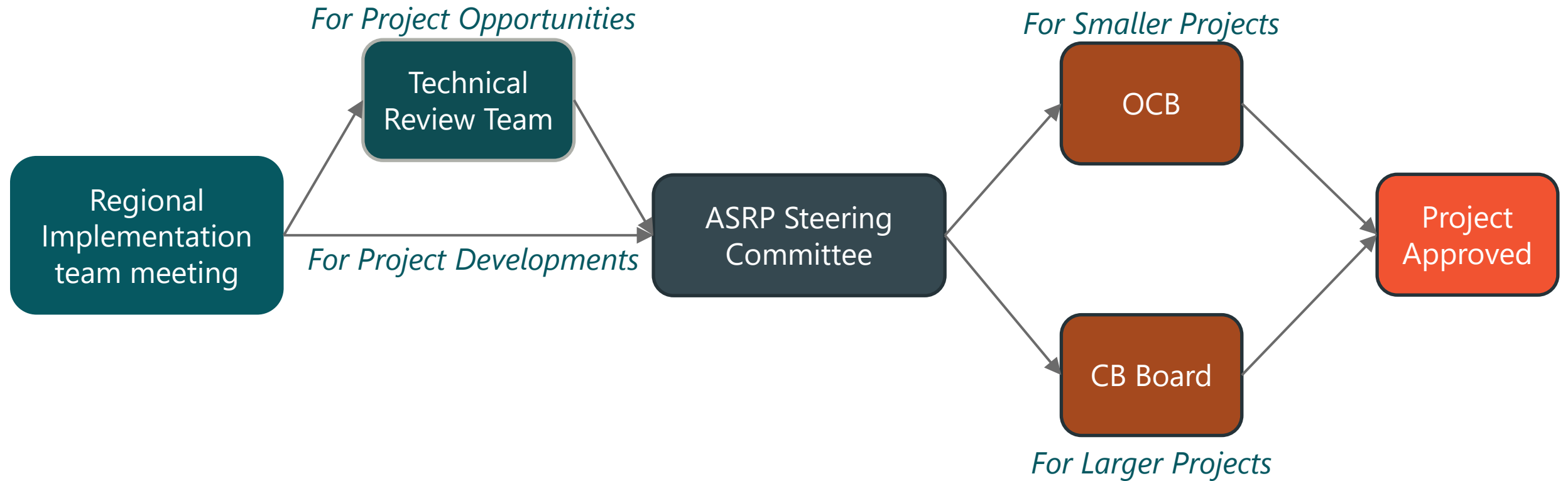
# Mainstem Newaukum RM 8-9 Riparian Planting And Acquisition, Phase 1

Drew Mealor, WDFW; Nikki Atkins, Lewis CD; Nate Lewis WFLT

5/4/23



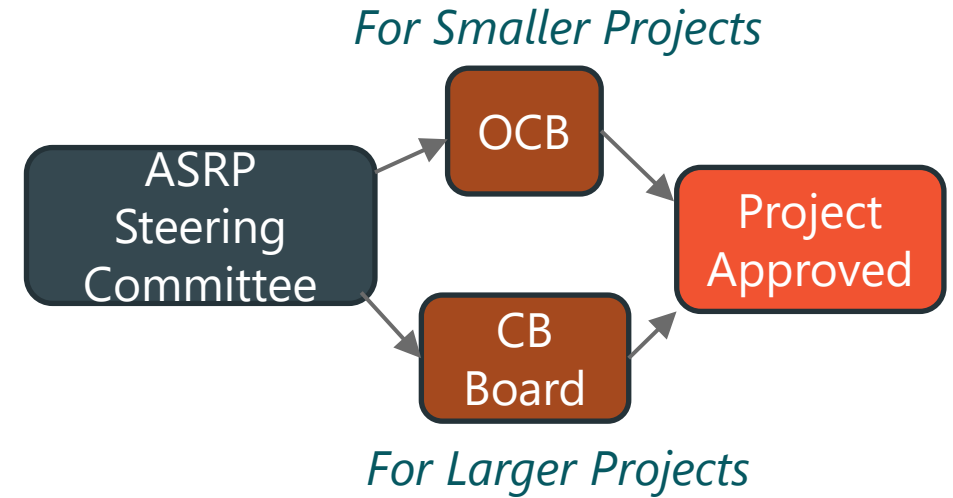
# HOW DO WE APPROVE PROJECTS?



# ASRP PROJECT FUNDING APPROVAL

## Project approval process:

- Board approval needed for project funding requests exceeding \$500,000
- Two-part approval process
  - ***First meeting – project introduction***
  - Second meeting – decision/vote to approve (or not approve) project for funding



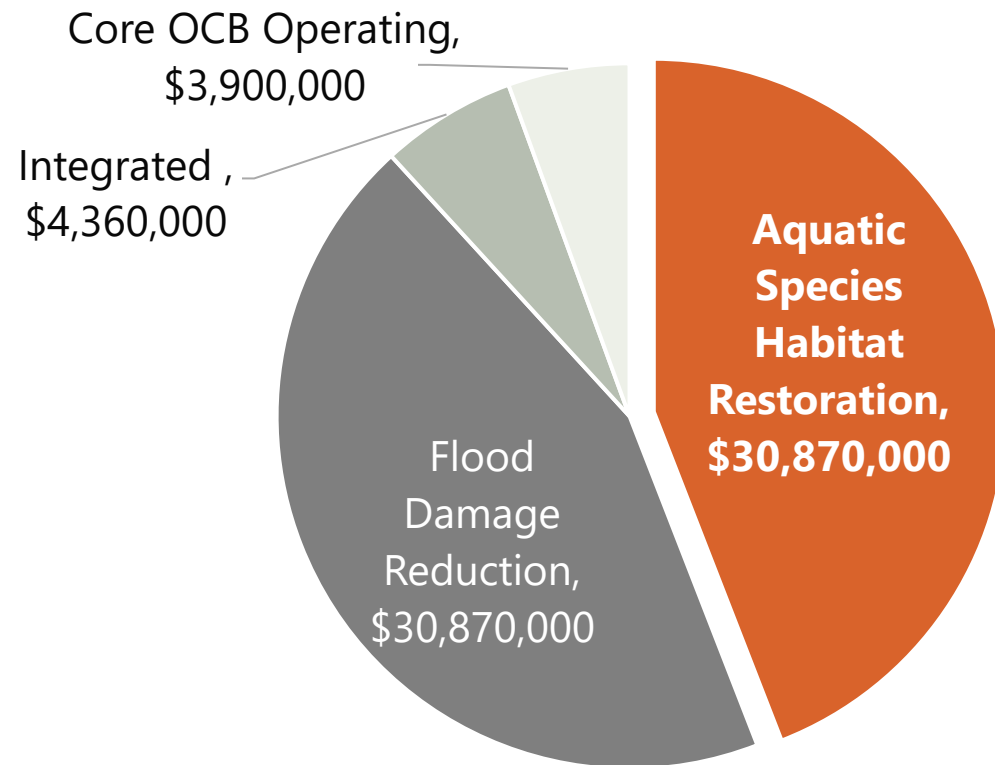


# ASRP BUDGET STATUS

- Mainstem Newaukum RM 8-9 Riparian Planting And Acquisition, Phase 1
- Sponsor: Lewis Conservation District and Washington Farmland Trust
- Seeking: \$725,000

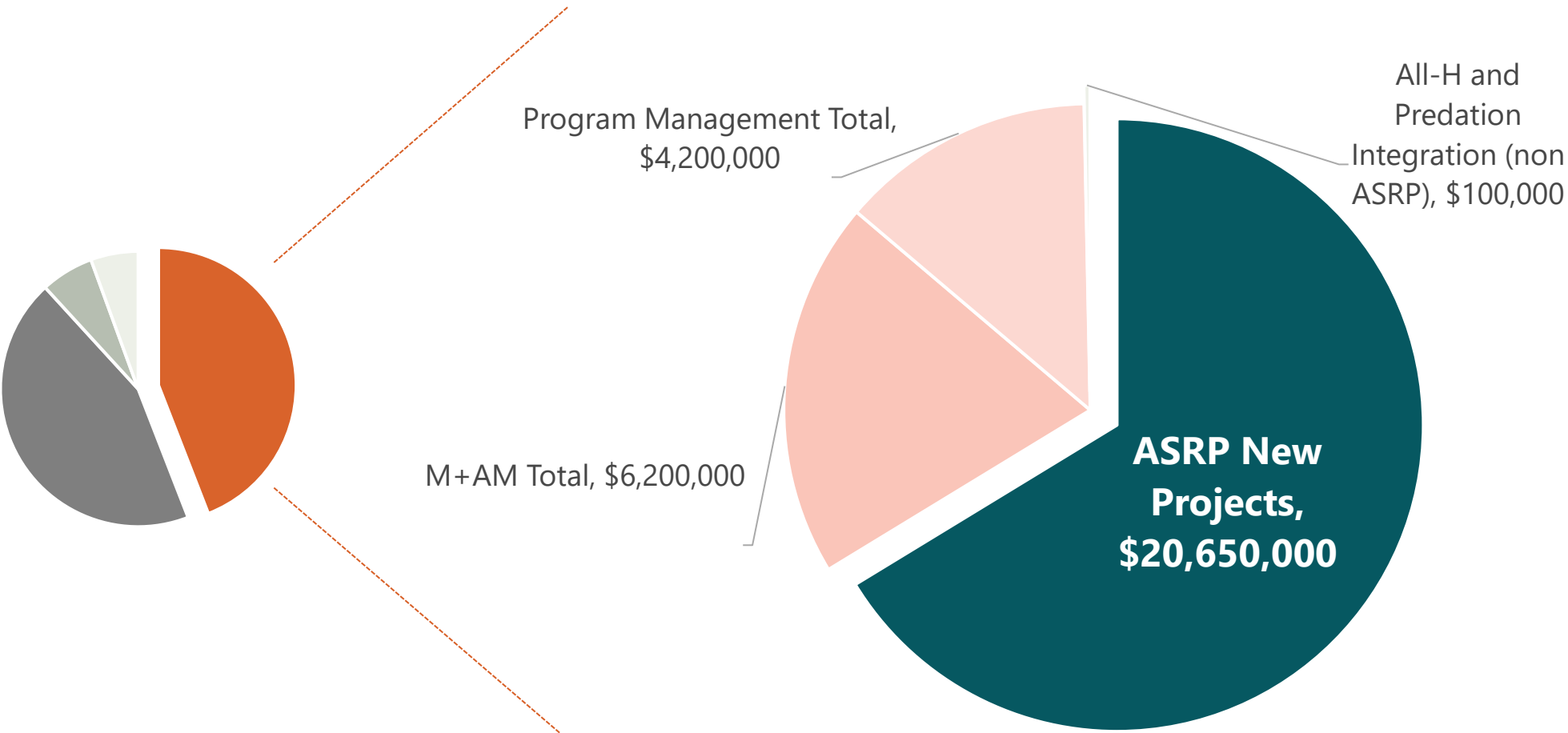
	As of 5/4/2023	With proposed project
Funding Amount	\$16,968,494	\$17,693,494
Remaining Unobligated	\$4,281,506	\$3,556,506

# CONNECTION TO CHEHALIS BASIN STRATEGY

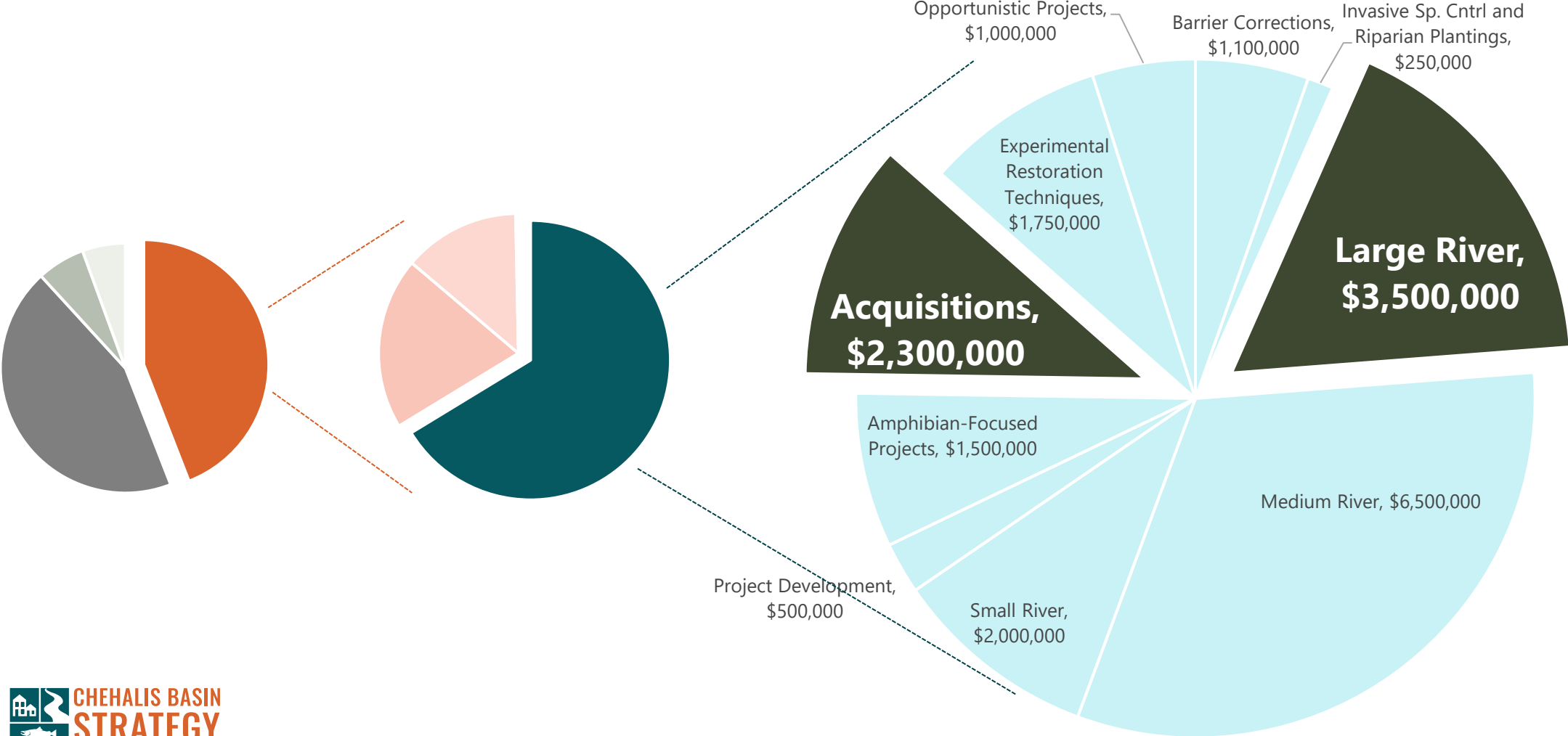


2021-2023 Chehalis Basin Strategy Budget

# CONNECTION TO CHEHALIS BASIN STRATEGY

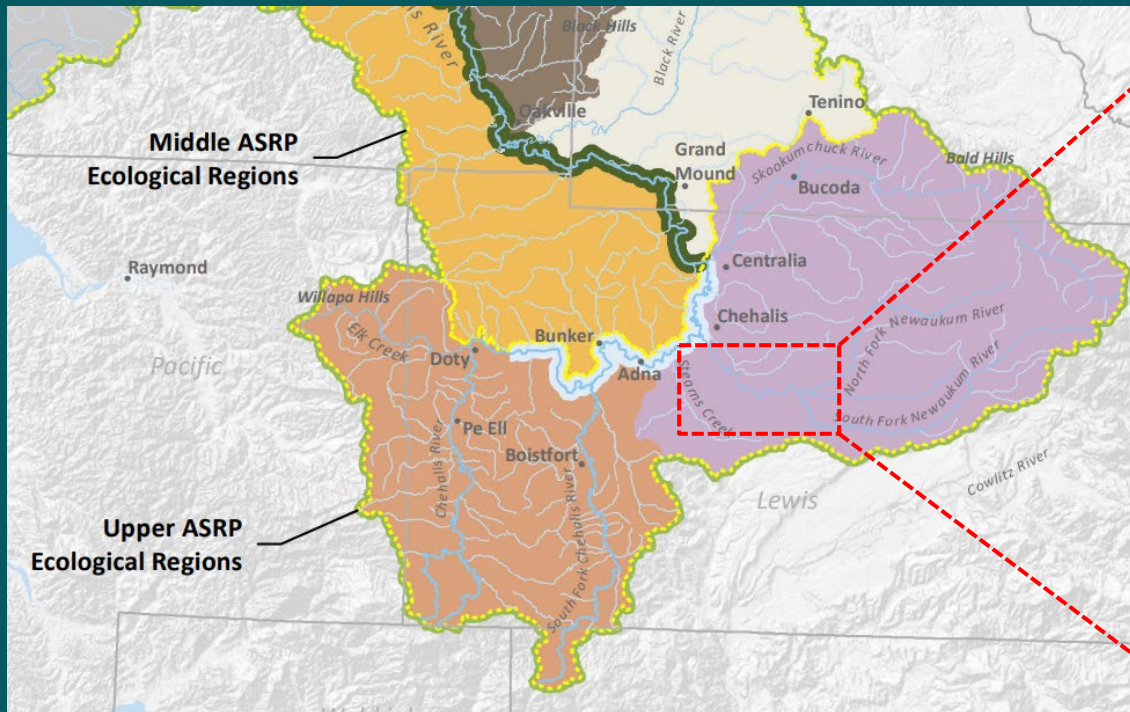


# CONNECTION TO CHEHALIS BASIN STRATEGY





# NEWAUKUM RM 8-9, PHASE 1: PROJECT REVIEW



# PROJECT: Mainstem Newaukum RM 8-9 Riparian Planting And Acquisition, Phase 1

- **Sponsor:** Lewis CD and Washington Farmland Trust
- **Location:** Lewis County, Cascade Mountains Ecological Unit. Lower Newaukum Mainstem GSU: an **ASRP near term priority area**
- **Landowner:** Single Private landowner; Ag and rural residential
- **ASRP Priority Limitations Addressed By Project:** Habitat Diversity, Temperature, Key Habitat, Channel Stability, Sediment Load
- **ASRP Priority Actions Addressed By Project:** Riparian restoration (high), reconnect floodplain (high), place large wood (medium)
- **Cost:** \$725,000

Geospatial Unit	Restoration Actions							Priority Species or Habitat Focus	Limiting Factors From Highest Priority to Lowest
	Place Large Wood	Remove Fish Barriers	Reconnect/Restore Floodplain	Riparian Restoration	Beaver Ponds/BDAs	Wetland Restoration	Acres of OSF* Habitat Protection/Restoration		
Lower Newaukum MS GSU	●		●	●				R Early Riparian Restoration S Spring Chinook	<b>Temperature, Habitat Diversity, Channel Length,</b> Key Habitat, Sediment Load, Predation, Channel Stability, Flow

# PROJECT DESCRIPTION

- **Synopsis**

- Reach Scale restoration of 1.4 miles along the Newaukum River including agricultural conservation easement, riparian restoration, invasives management, instream design
- Agricultural Conservation Easement will permanently protect property further development, and will place a portion of the property into habitat use. Threat from proximity to freeway and golf course.
- Riparian plantings and invasive management will increase cover to reduce temperature, increase channel stability, increase habitat diversity, and increase long term habitat diversity by providing large wood material inputs.
- Concept-level instream design for potential ELJ installation to create wildlife habitat, in particular summer holding pools for spring chinook

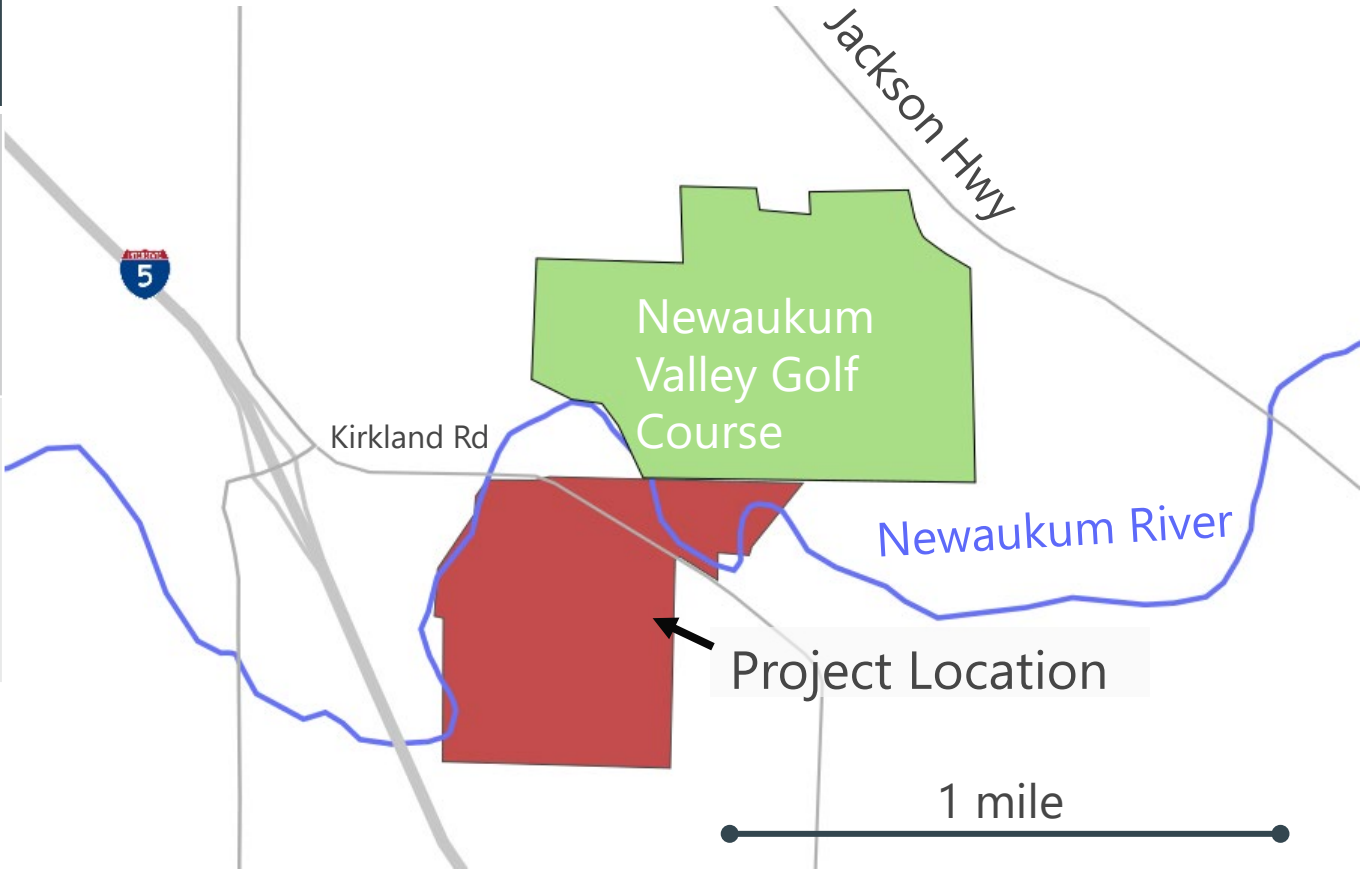
- **Outcomes (Funded by this project):**

- **132 acres** of agricultural conservation easement, with 25-50 percent of the acreage being placed into permanent riparian habitat and the remainder in agricultural use.
- **1.4 miles** of instream habitat protected by easement
- **11.95 acres** of invasive treatment and planting
- **Concept Design** for 2,200 feet of instream structures



# RELATED WORK AND PREVIOUS FUNDING

Project	Year	Funding
Chehalis Basin Water Liaison (ASRP)	2020	\$85,000
Spencer Farm Acquisition (WWRP)	2023	\$271,000





# PROJECT TIMELINE- PHASE 1 FUNDING

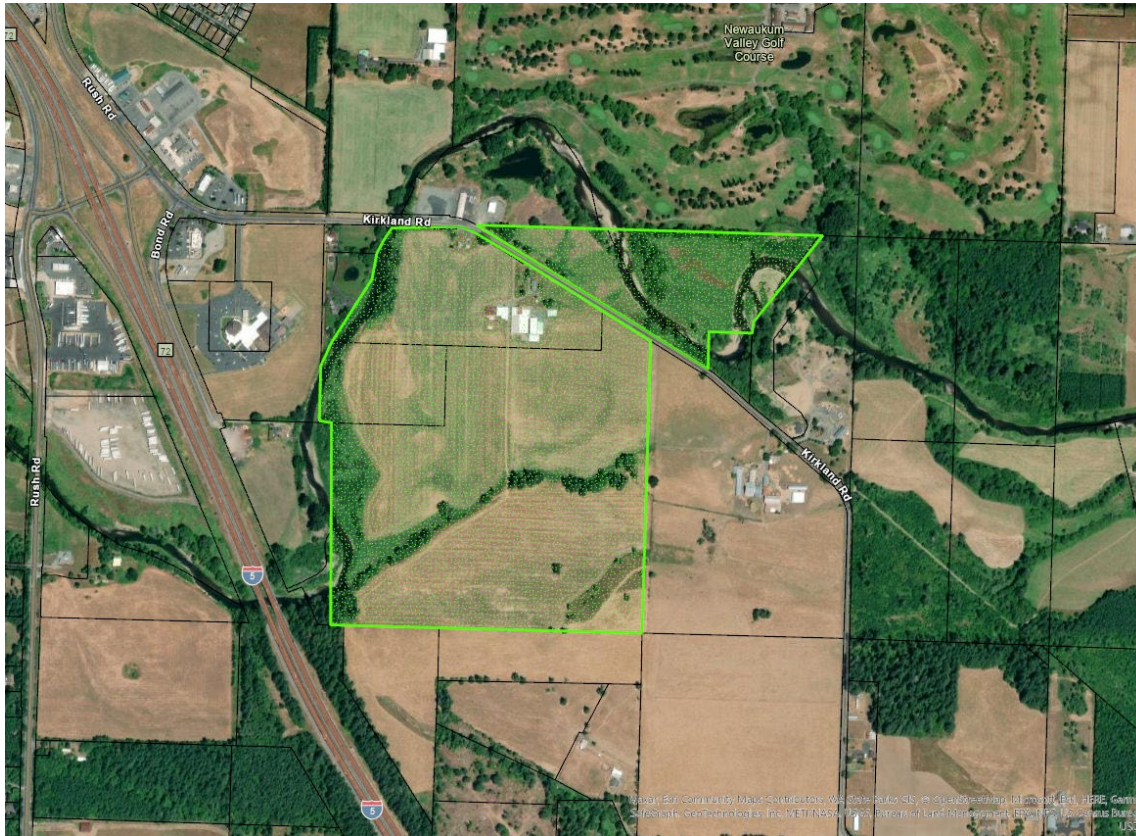
- **Fall 2023:**
  - CE written and due diligence completed
  - Cultural Resources
  - Site prep, invasive species control, and ordering supplies
  - Consultant hired for phase 2 design
- **Early 2024:**
  - Acquisition Closing
  - Phase 1 riparian plantings completed
  - Phase 2 concept design completed
- **Mid-late 2024**
  - Phase 2 funding sought (if needed)
- **2024-2028**
  - Invasive species treatment

# PROJECT PHASING

- Phase 1
  - Permanent easement to protect 131.7 acres from development in the future
  - 11.95 Acre riparian buffer planted
  - Hire consulting firm assess instream fish habitat options
- Phase 2
  - Install wood in Main Stem Newaukum River to create habitat diversity and key habitat feature
  - Plant additional area to riparian buffer

# EASEMENT AREA — PHASE 1

## 131.7 ACRES



Sub budget: \$293,425

Additional \$271,000 match from  
WCRII

# PLANTING AREA- PHASE1

## 11.95 ACRES



Sub budget: \$356,575

Additional \$30,000 match from  
WA Conservation Commission



# INSTREAM STRUCTURES — PHASE 2

## 2,200 FEET



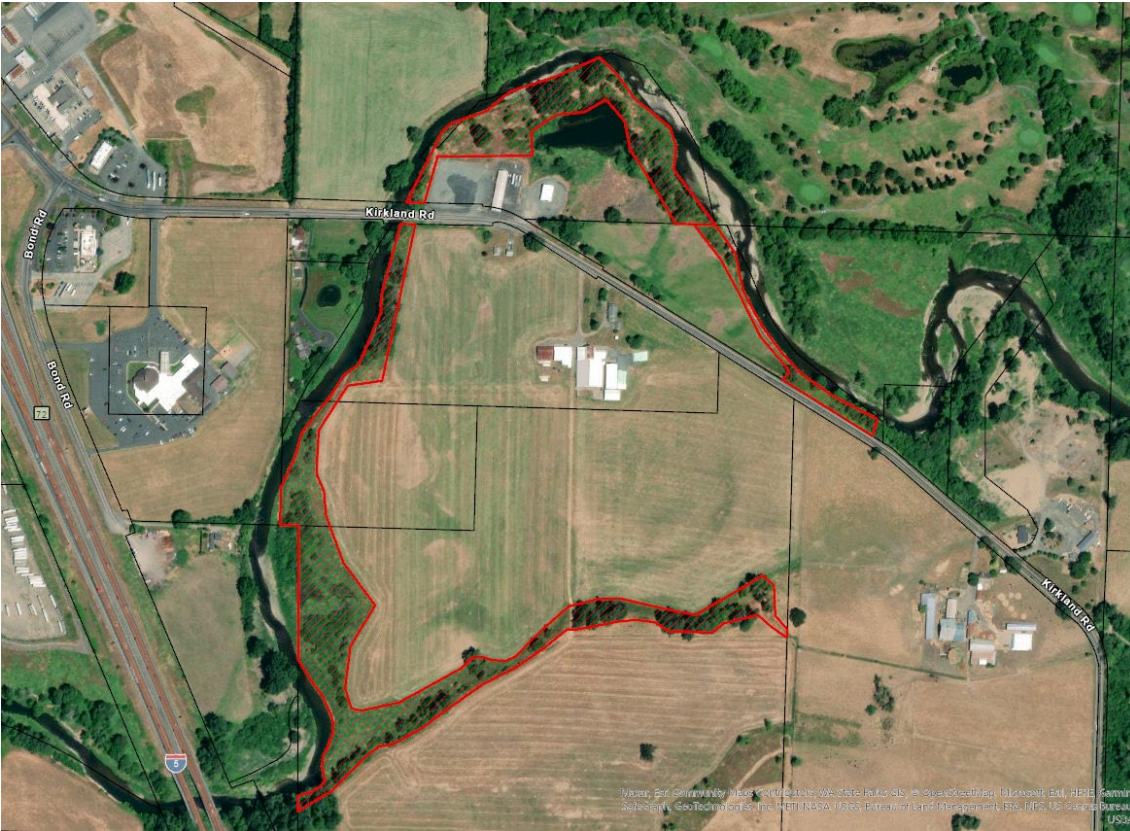
Sub budget: \$75,000 for  
assessment and concept design

Construction would be funded in  
future phase

# RIPARIAN BUFFER — PHASE 2

## 19 ACRES

Would be funded in future phase



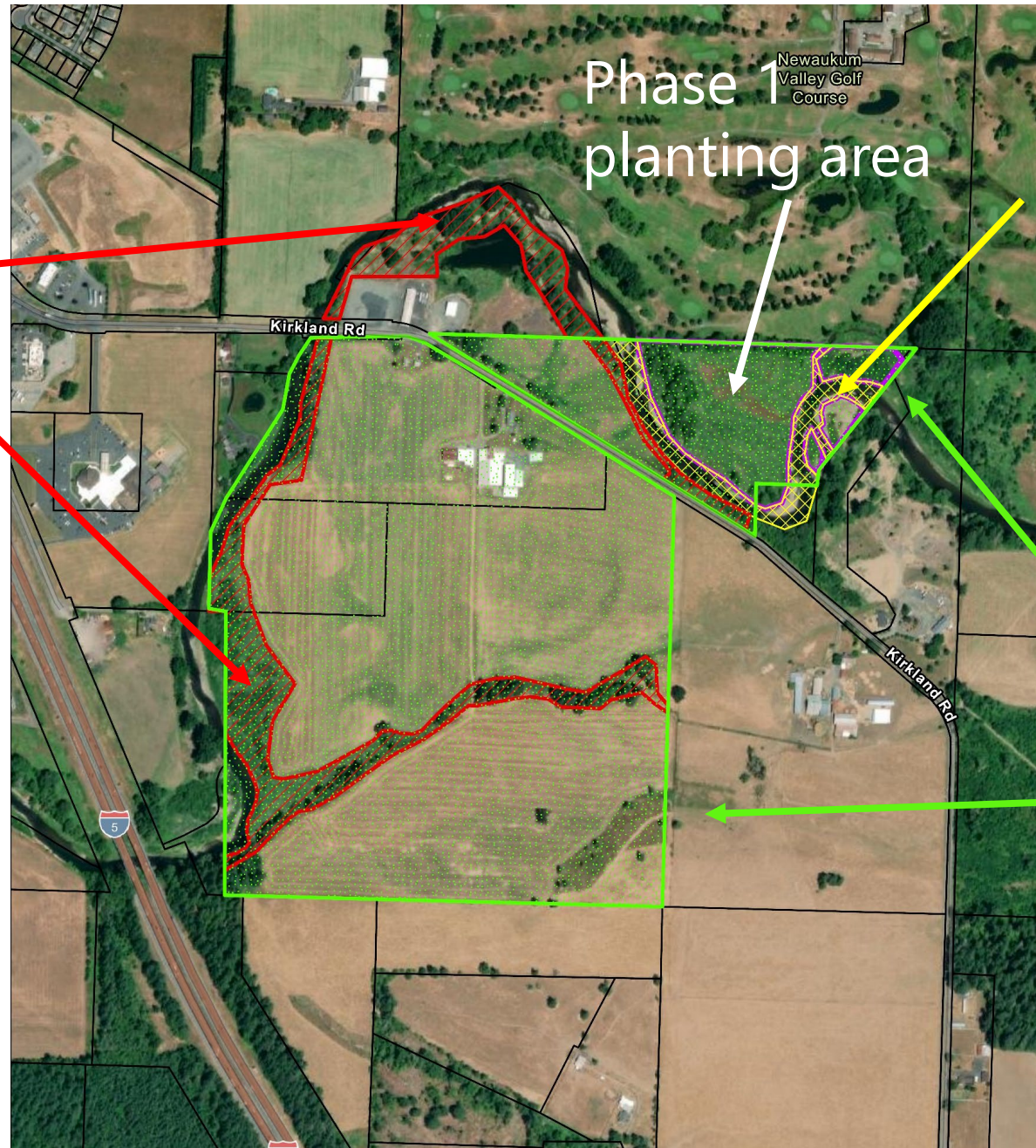


Phase 2 Riparian  
Planting

Phase 1  
planting area

Phase 2 instream  
structure (concept  
design in phase 1)

Agricultural  
Easement Area



# FEEDBACK- PEER, TRT, AND STEERING COMMITTEE

- Good to see project in highly important MS Newaukum
  - Could serve as foothold to get greater landowner willingness from neighbors
- Will need to ensure that riparian buffers are sufficiently wide in agricultural areas
- Explore if landowner would be open to actions which further increase floodplain connectivity on their property

# TASK: REVIEW FUNDING INCREASE REQUEST

- This project is asking for Phase 1 funding of \$725,000
  - Because this amount is greater than \$500,000, *this request must be approved by the Board*
  - The sponsor would need start a new funding request for Phase 2
- The Board will vote on this request at the **June 1, 2023 Board meeting**
- Please send any questions to Drew Mealor ([Andrew.Mealor@dfw.wa.gov](mailto:Andrew.Mealor@dfw.wa.gov))