

Watershed Pathway Updates

1/19/2016

Fish Barrier Removal Board

Stacy Polkowske, WDFW

Watershed Pathway Updates

- Progress on identifying focus reaches
 - Snake
 - Grande Ronde Tribs
 - Snake River Tribs
 - Coast HUC 10
 - Newaukum
 - Puget Sound
 - L. Columbia, U. Columbia, Yakima

Approved HUC10 Nominations

Statewide

- Lower Columbia
 - Lower Cowlitz
- Yakima River
 - Wilson/Cherry
- Snake River
 - Grande Ronde Tribs
 - Snake River Tribs
- Upper Columbia
 - Okanogan

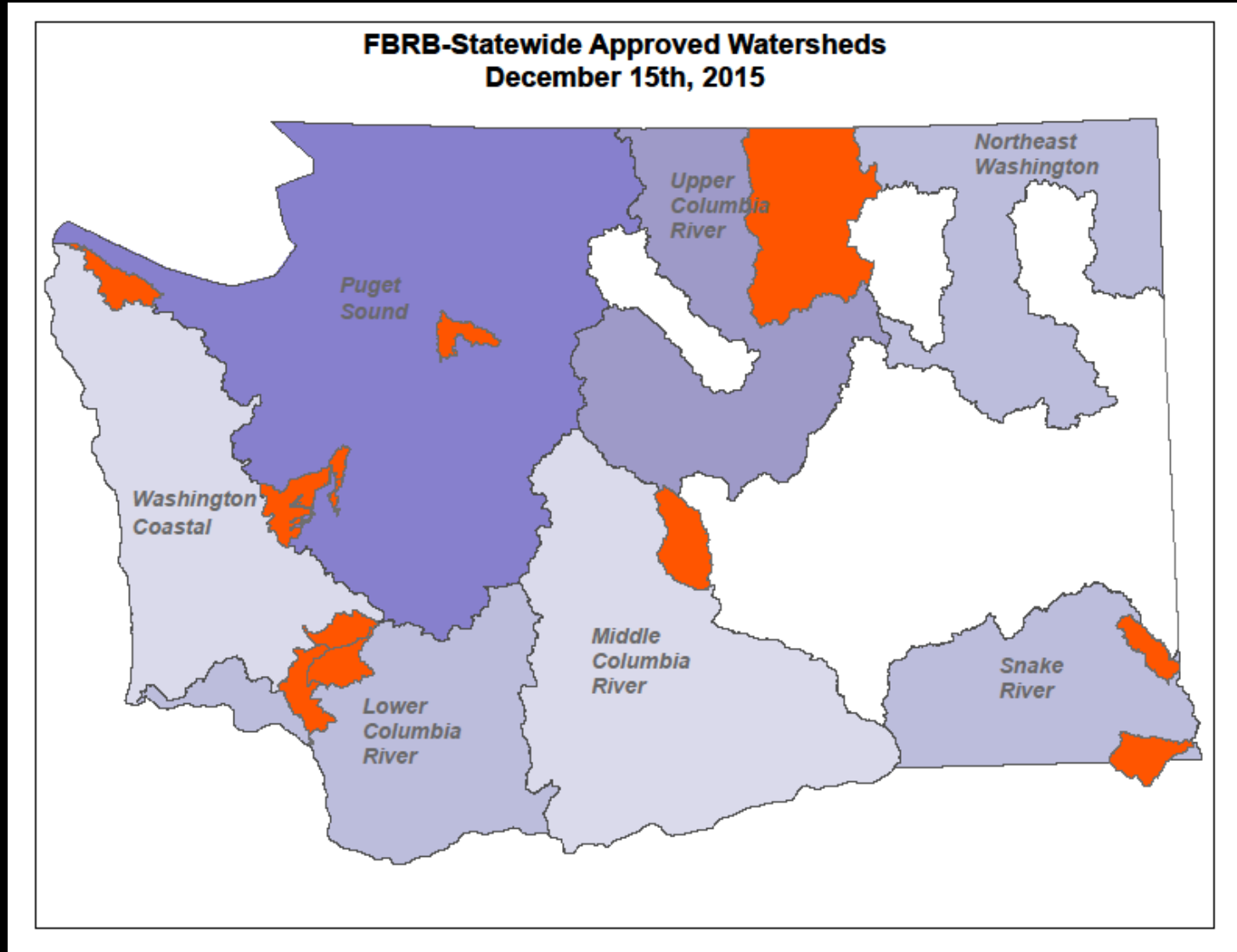
Puget Sound

- Pilchuck Creek
- Pysht River
- Goldsborough Creek

Coast

- Newaukum

Approved HUC 10 Nominations



Workflow Timeline

- **January – May**
 - Focus reach identification
 - Initial pre-scoping and landowner permissions
 - Funding package development
- **May Board Meeting**
 - Initial approval of projects of both grant pathways
- **May – July**
 - Feasibility, cost-estimates, additional scoping, engineering review
- **August Board Meeting**
 - Approval of project list

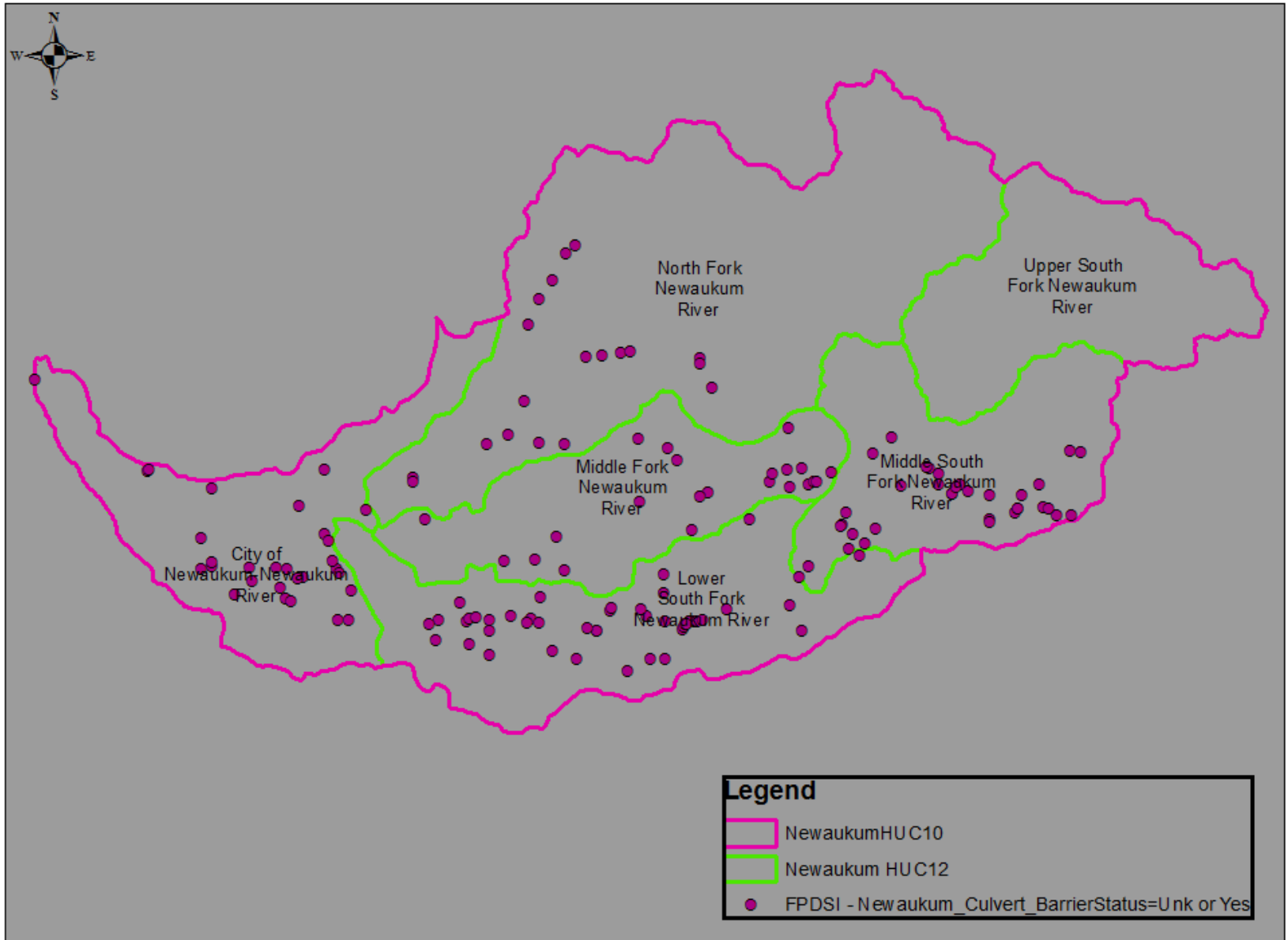
Snake River Salmon Recovery Board

- Focus Reaches and Priorities
 - Grande Ronde Tribs
 - Snake River Tribs

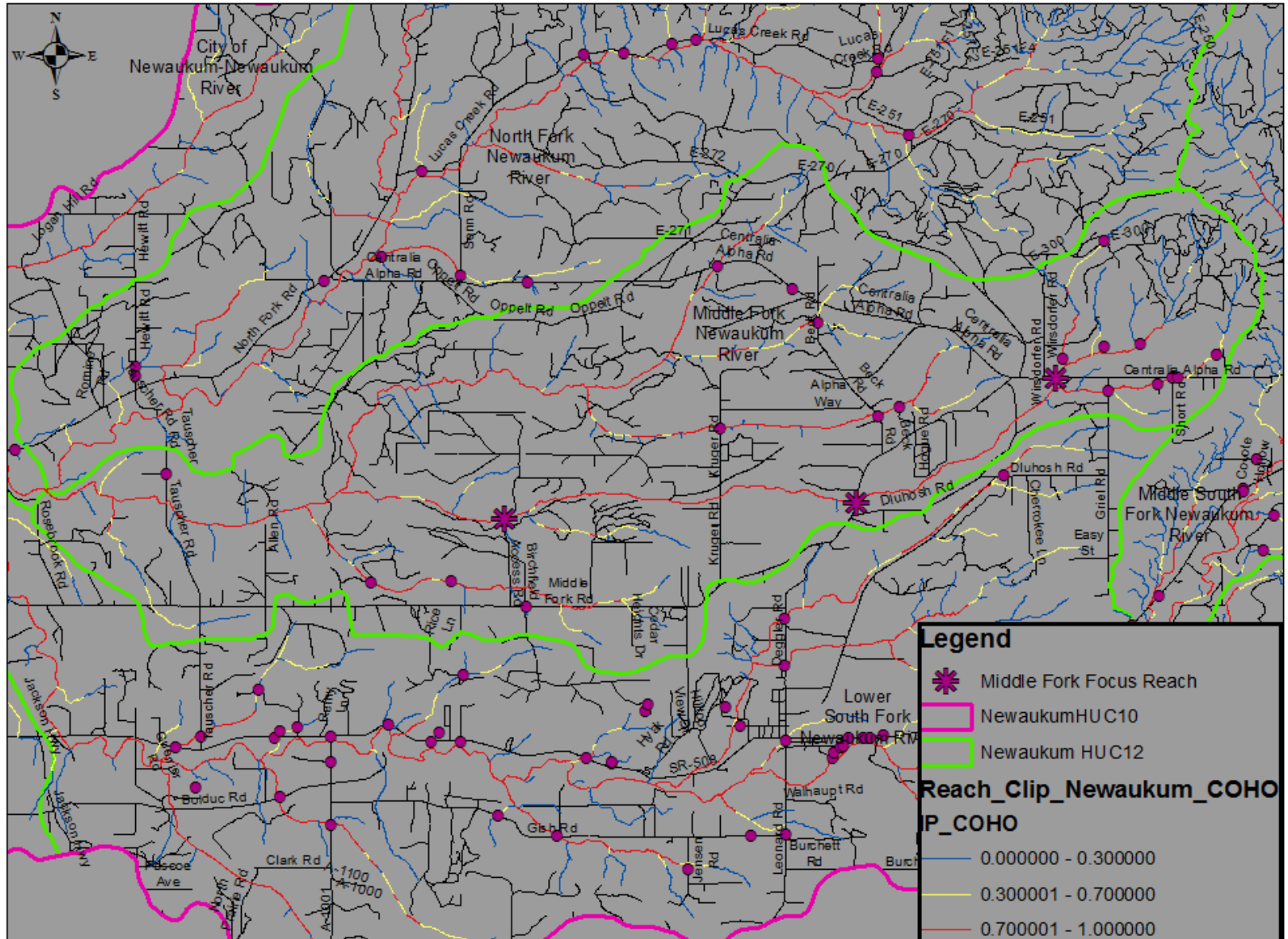
WA Coast HUC10- Newaukum

- Update:
 - January 11th Habitat Workgroup Subcommittee meeting
 - Identified several focus reaches and priority culvert corrections
 - Middle Fork Newaukum
 - Lower South Fork Newaukum
 - Next step – get in the field!

Newaukum HUC10 Watershed



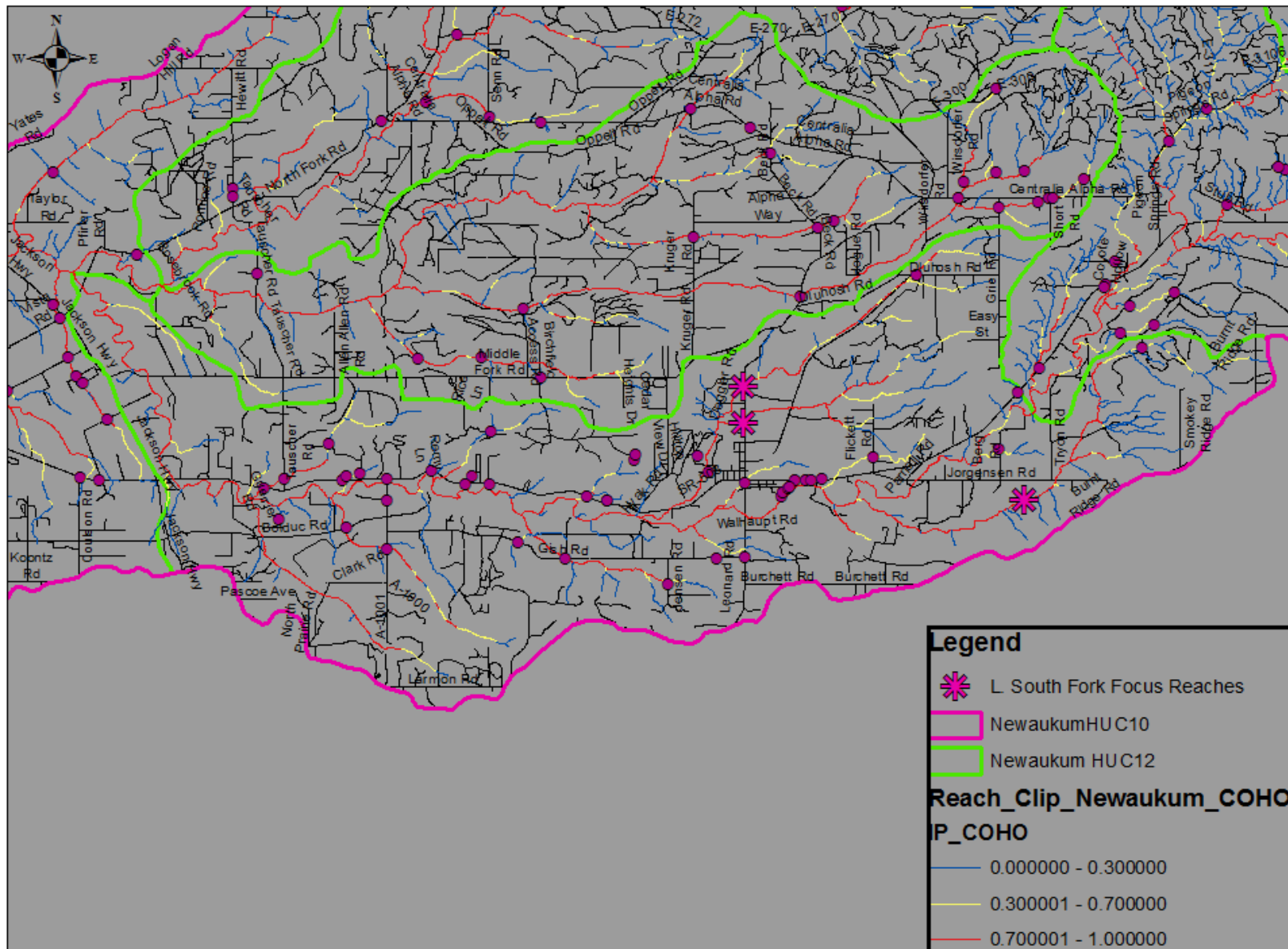
Middle Fork Newaukum Focus Reach



Middle Fork Newaukum Potential Funding Package

- Net Gain = 5.5 miles
 - High value IP for Coho Winter Rearing
- 3 county culverts
 - Birchfield Access Rd (submitted to Coordinated Pathway)
 - Dluhosh Rd
 - Centralia Alpha Rd
- Cost estimate = \$1.3M

L. South Fork Newaukum Focus Reaches



Lower South Fork Newaukum

- Net Gain = 8.7 miles
 - High and medium value IP for Coho Winter Rearing
- 3 county culverts (all submitted to Coordinated Pathway)
- 1 private
- Cost estimate = \$1M

Puget Sound Watershed Updates

Pysht River

- Received new inventory data from the County and entered into database
- Finishing Hoko Packages for Lead Entity Input
- Meeting with Sub-committee of the North Olympic LE on Feb 4th to go over packages and prioritize

Puget Sound Watershed Updates

Pilchuck River

-A fourth package was added for LE review. HUC 12 packages are Bunk Foss Creek, Catherine Creek, Little Pilchuck Creek, and Unnamed Trib to Pilchuck R.

-Coordinating with Snohomish LE to prioritize packages

Puget Sound Watershed Updates

Goldsborough Creek

- A third package was added for LE review. HUC 12 packages are Goldsborough creek, Cranberry Creek, and Sherwood Creek
- Met with WRIA 14 Lead Entity to go over suggested packages
- Meeting set up with WRIA 14 LE on January 28 to prioritize packages

Other Statewide Watersheds

- **Lower Columbia - Lower Cowlitz**
- **Yakima River - Wilson/Cherry**
- **Upper Columbia - Okanogan**

Questions and Discussion



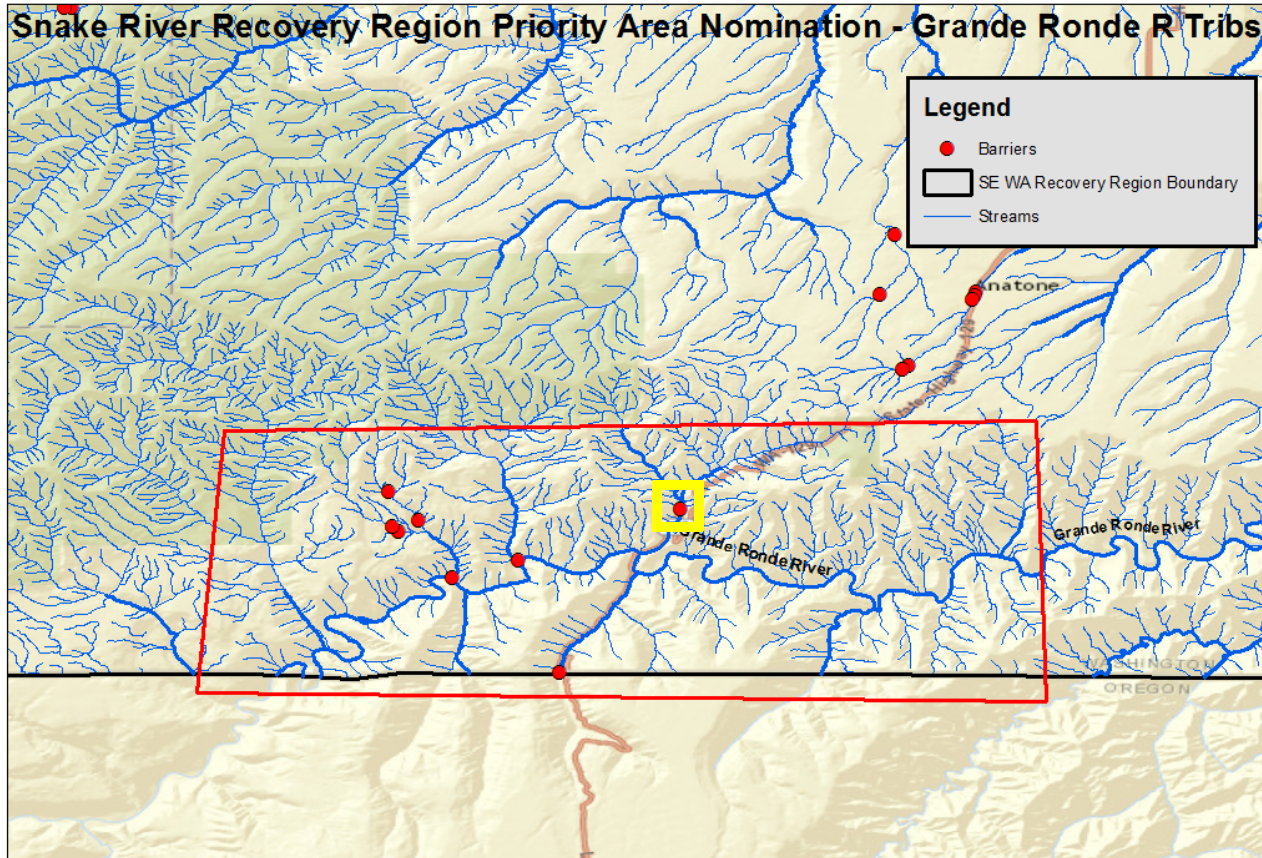
GRANDE RONDE TRIBUTARIES
FOCUS AREA: METRICS AND PRIORITIZATION

FBRB meeting
Jan 19, 2016

BACKGROUND INFORMATION

- Data provided was collected by Walla Walla Community College (WWCC) in a road crossing inventory completed in 2010.
- Barrier priorities are in order, highest to lowest in the following slides.
- Pictures are provided by WWCC and Sean Taylor, WDFW.
- This information is provided to the FBRB in conjunction with the Snake River Salmon Recovery Board

GRANDE RONDE FOCUS AREA



Priority Area

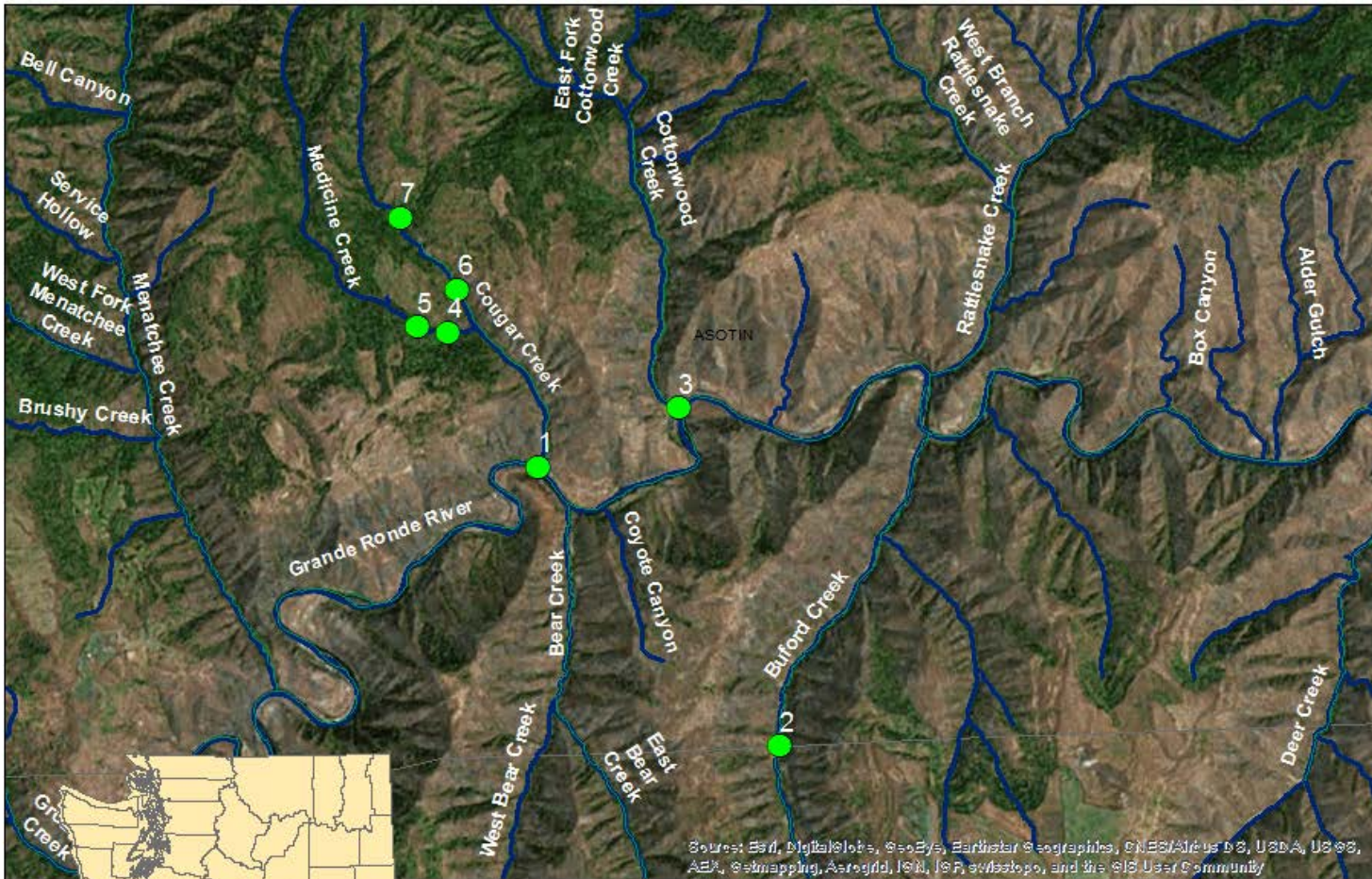
Map by: Justin Zweifel May 19, 2015

0 2 4 8 Miles



*Rattlesnake Creek-
Highlighted in yellow
was completed in
2014 by the Asotin
County Conservation
District.

Snake - Grande Ronde Tributaries



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Aero, GeoMapping, AeroGRID, IGN, ICG, swisstopo, and the GIS User Community



- Legend**
- Grande Ronde Priors
 - GeoLib.DBO.SWIFD

PRIORITY 1 - COUGAR CREEK #1

Metrics

- WSD: .4m; Slope: 2.2%
- Length: 14.3m
- Species: Steelhead
- Lineal Gain: ~2 miles
(to next barrier)
- Proposed fix: Bridge
- Cost: 200 – 300K
- Owner: Asotin County



PRIORITY #2 - BUFORD CREEK

Metrics

- WSD: .3m; Slope: 2.2%
- Length: 51.8m
- Species: Steelhead
- Lineal Gain: 1.7 miles
(to end of fish distribution)
- Proposed fix: Nez Perce
Tribe doing design
currently, w/ SRFB grant
- Cost: 500K – 1 Million
- Owner: WSDOT



PRIORITY 3 - COTTONWOOD CREEK

Metrics

- Slope: 7.3% (needs level B assessment)
- Length: 14.3m
- Species: Steelhead
- Lineal Gain: ~2.5 miles (end of fish distribution)
- Proposed fix: Bridge
- Cost: 300- 400K
- Owner: WSDOT



PRIORITY 4 - MEDICINE CREEK #1

Metrics

- Slope: 11.5%
- Length: 16.2m
- Species: Steelhead
- Lineal Gain: 0.25 miles
(to next barrier)
- Proposed fix: New culvert
- Cost: 100 - 150K
- Owner: Asotin County

*A Habitat Assessment would need to be conducted to determine if natural barrier is directly upstream.



PRIORITY 5 - MEDICINE CREEK #2

Metrics

- Slope: 9.8%
- Length: 18.3m
- Species: Steelhead
- Lineal Gain: ? (no fish distribution or barrier info above)
- Proposed fix: Culvert
- Cost: 100 – 150K
- Owner: Asotin County



PRIORITY 6 - COUGAR CREEK #2

Metrics

- WSD: .54m Slope: Unk
- Length: 21.6m
- Species: Steelhead
- Lineal Gain: 0.75 miles
(to next barrier)
- Proposed fix: Bridge
- Cost: 300 - 400K
- Owner: Asotin County
- Road Fill Depth: 2-3m



PRIORITY 7 - COUGAR CREEK #3

Metrics

- WSD: .37m; Slope: 9.8%
- Length: 14.3m
- Species: Steelhead
- Lineal Gain: ? (no fish distribution or barrier info above)
- Proposed fix: Culvert
- Cost: 100 – 150K
- Owner: Asotin County



POTENTIAL FUNDING PACKAGE

- **Top Three Culvert Priorities**
 - **Cougar #1, Buford, Cottonwood**
 - **Lineal Gain = 6.2 miles**
 - **Estimated Cost = \$1.7M**
 - **2 WSDOT, 2 County**
 - **Target species = Steelhead**

SNAKE RIVER TRIBUTARIES

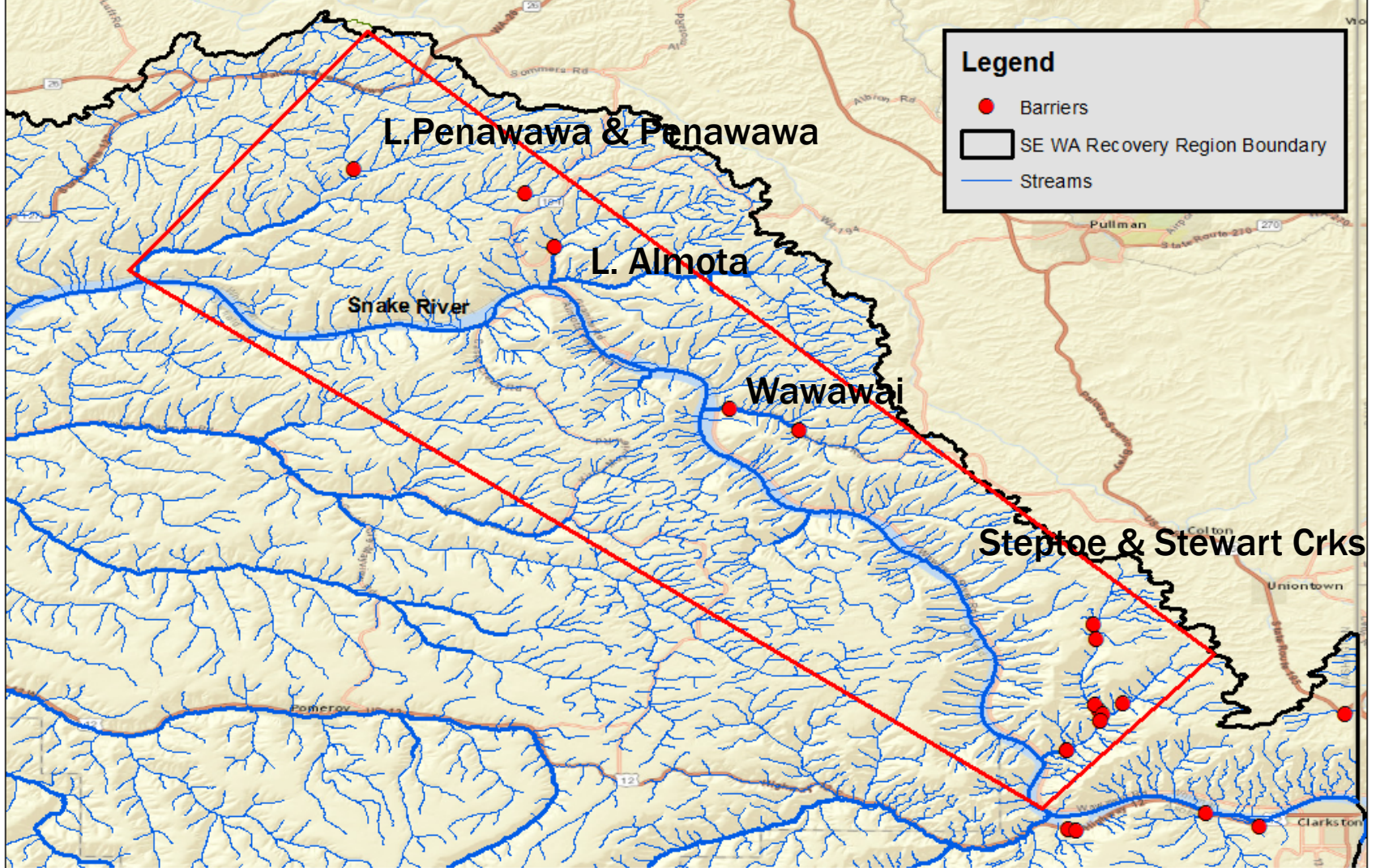
FOCUS AREA: METRICS AND PRIORITIZATION

FBRB meeting
Jan 19, 2016

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Snake River Recovery Region Priority Area Nomination - Snake R Tribs.



 Priority Area

Map by: Justin Zweifel May 19, 2015

0 3 6 12 Miles



PRIORITY 1 - STEPTOE CREEK #1

Metrics

- Slope: 2.1%
- Length: 23.1m
- Species: Steelhead
- Lineal Gain: 8,492m (total gain)
- Proposed fix: Palouse CD has been awarded a SRFB grant to replace barrier culvert with a bridge in 2016
- Cost: 200 - 300K
- Owner: Whitman County
- FPDSI # 933021



PRIORITY 2 - STEPTOE CREEK #2

Metrics

- Slope: 7.4%
- Length: 15m
- Species: Steelhead
- Lineal Gain: 5,912m
(total gain)
- Proposed fix: Culvert
- Cost: 150 -200K
- Owner: Whitman County
- FPDSI # 933022



PRIORITY 3 - STEWART CREEK FORD

Metrics

- WSD: .45m
- Species: Steelhead
- Lineal Gain: 3,434m (total gain)
- Proposed fix: Grade control weir(s)
- Cost: 50 - 100K
- Owner: Private
- FPDSI # 933028



PRIORITY 4 - PENAWAWA CREEK #1

Metrics

- WSD: .4m; Slope: 1.6%
- Length: 9.14m
- Species: Steelhead
- Lineal Gain:
- Proposed fix: Culvert
- Cost: 100 – 150K
- Owner: Whitman County



PRIORITY 5 - LITTLE PENAWAWA CREEK #1

Metrics

- WSD: .54m
- Species: Steelhead
- Lineal Gain:
- Proposed fix: Culvert
- Cost: 150 – 200K
- Owner: Whitman County



PRIORITY 6 - LITTLE ALMOTA CREEK #1

Metrics

- WSD: 1.2m; Slope: 3.9%
- Length: 43.2m
- Species: Steelhead
- Lineal Gain:
- Proposed fix: Bridge
- Cost: 300 – 400K
- Owner: WSDOT



PRIORITY 7 - WAWAWAI CREEK #1

Metrics

- WSD: .24m; Slope: 2.1%
- Length: 70.1m
- Species: Steelhead
- Lineal Gain:
- Proposed fix: Bridge
- Cost: 1 Million
- Owner: Whitman County



PRIORITY 8 - WAWAWAI CREEK #2

Metrics

- Slope: 4.3%
- Length: 58.5m
- Species: Steelhead
- Lineal Gain:
- Proposed fix:
- Cost: 200K
- Owner: Whitman County

PRIORITY 9 - STEPTOE CREEK #3

Metrics

- Slope: 3.3%
- Length: 7.3m
- Species: Steelhead
- Lineal Gain: 5.492
- Proposed fix: Culvert
- Cost: 50 - 100K
- Owner: Private
- FPDSI # 933023



PRIORITY 10 - STEPTOE CREEK #4

Metrics

- WSD: .05m; Slope: .4%
 - Length: 14.1m
 - Species: Steelhead
 - Lineal Gain:
 - Proposed fix: Culvert
 - Cost: 150 – 200K
 - Owner: Whitman County
 - FPDSI # 933024
- *A level B assessment needs to be conducted to evaluate barrier status

PRIORITY 11 - STEPTOE CREEK #5

Metrics

- Slope: 2.0%
- Length: 14.5m
- Species: Steelhead
- Lineal Gain: 5,178
- Proposed fix: Culvert
- Cost: 150 – 200K
- Owner: Whitman County
- FPDSI # 933025



PRIORITY 12 - STEPTOE CREEK #6

Metrics

- WSD: .1m; Slope: 1.3%
- Length: 14.4m
- Species: Steelhead
- Lineal Gain: 4,837
- Proposed fix: Culvert
- Cost: 150 – 200K
- Owner: Whitman County
- FPDSI # 933026



POTENTIAL FUNDING PACKAGE

- **Top 3 Culvert Priorities**
 - **Steptoe #1, Steptoe #2, Steward Cr Ford**
 - **Lineal Gain = 11.7 miles (total gain – not net)**
 - **Estimated Cost = \$600K**
 - **2 County, 1 private**
 - **Target species = Steelhead**

Coordinated Project Pathway Ranking Criteria #1:

1. Accessibility Weighted Habitat Score

- Multiply the passability of each barrier by the net gain
 - If a nomination has a passability of 100% the score is 0

2. Project Readiness (Individual Project Scale) Score

- Score of 5 – 12 Points
- Score of 4 – 10 Points
- Score of 3 – 8 Points
- Score of 2 – 3 Points
- Score of 1 – 1 Point

3. Number of Anadromous Species Present

- 1 Point for each anadromous species

4. Stock Status – What is the highest level of protection for a present species (SalmonScape)?

- 1 Point – Unwarranted
- 2 Points – Species of Concern
- 3 Points – Threatened
- 4 Points – More than 1 threatened species

Coordinated Project Pathway Ranking Criteria #2:

1. Linear Gain

- Sort by largest to smallest in spreadsheet
- Look at the scores of the top 50 projects

2. Project Readiness (Individual Project Scale)

- Score of 1 – 1 Point
- Score of 2 – 3 Points
- Score of 3 – 5 Points
- Score of 4 – 6 Points
- Score of 5 – 8 Points

3. Barrier Status

- Total Barrier – 5 Points
- 33% Passable – 4 Points
- 67% Passable – 3 Points
- Unknown – 2 Points
- 100% Passable – 0 Points

4. Are there unknown passable crossings or barriers downstream of the package?

- No – 5 Points
- 1 Unknown Passable crossing – 3 Points
- ≥2 Unknown Passable crossings – 2 Points
- Partial Barrier(s) – 1 Point
- Total Barrier(s) – 0 Points

5. Number of anadromous species/stock

- 1 Point for each species

6. Stock Status – What is the highest level of protection for a present species (SalmonScape)?

- 1 Point - Unwarranted
- 2 Points – Species of Concern

Draft Date 1/18/2016
Details in discussion notes

- 3 Points – Threatened
- 4 Points – More Than 1 Listed Species

DRAFT