



2019 Fish Passage Prioritization

*A methodology for Artificial Obstruction
Prioritization in Oregon*

Exhibit E

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Oregon Fish Passage
www.dfw.state.or.us/fish/passage

2019 Fish Passage Priority List

Seeking approval of the Priority List by the Oregon Fish and Wildlife Commission

- Required by ORS 509.585 every 5 years
- Basic Requirements in OAR 635-412-0015
- Barrier inventory and Standardization
 - Methods described in Attachment 2
 - Useful tool to direct resources
 - OFWC enforcement with 60/40 cost share

2013- 2018 Fish Passage Prioritization Efforts

- **Inventory of 27,800 known Artificial Obstructions**
- **534 High priority fish passage barriers**
- **75 (14%) Barriers addressed for fish passage or removal**
- **Key Accomplishments:**
 - Opal Springs Fishway (top ten)**
 - Wimer and Fielder Dam Removals (top ten)**
 - Brownell Dam Removal**
 - Walcott Fish Ladder**
 - E. Fork S. Fork Trask River Dam Removal**
 - Oak Ranch Creek Culvert Replacement**
 - North Canal Dam Fishway- Deschutes R**



Walcott Fish Ladder- Little Butte Creek



North Canal Dam- Deschutes River



Brownell Dam Removal - Umatilla River



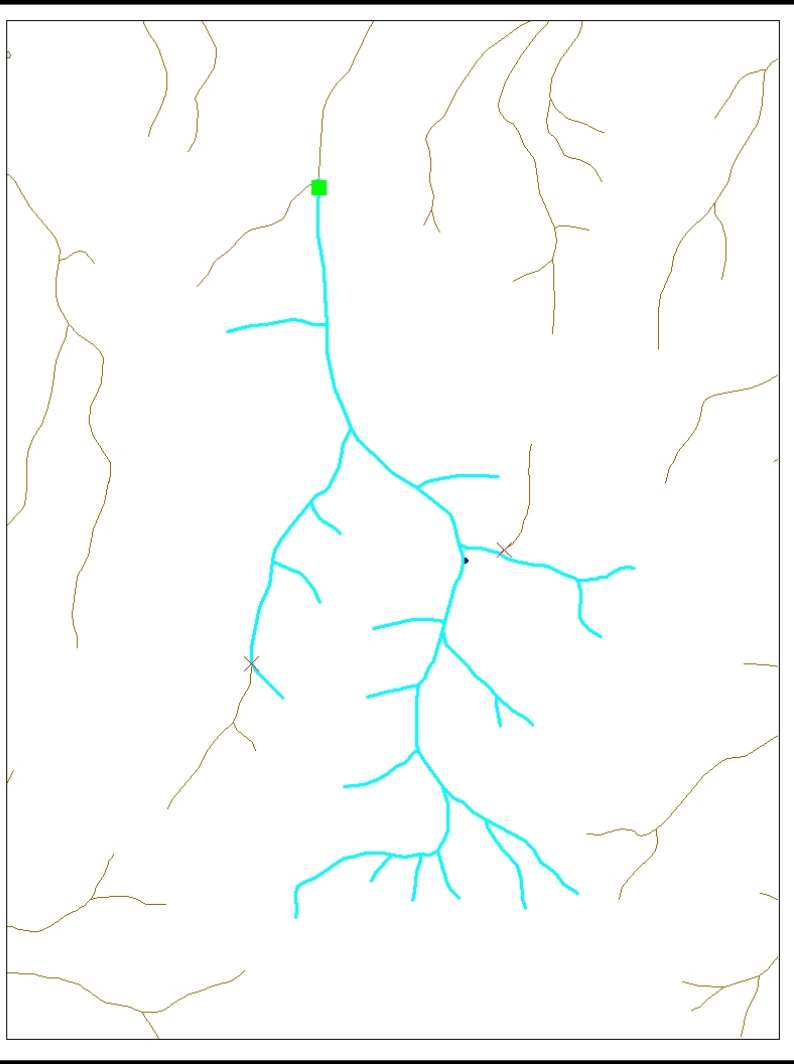
2019 Prioritization Model

$$(Quantity \times Quality) \times \left(\frac{Level \ of \ passage}{5}\right) + (n(\#listed \ NMF) + 20(\#NMF) + 15(\#autoup) - 15(\#autodown))$$

A state-wide prioritization methodology that incorporates:

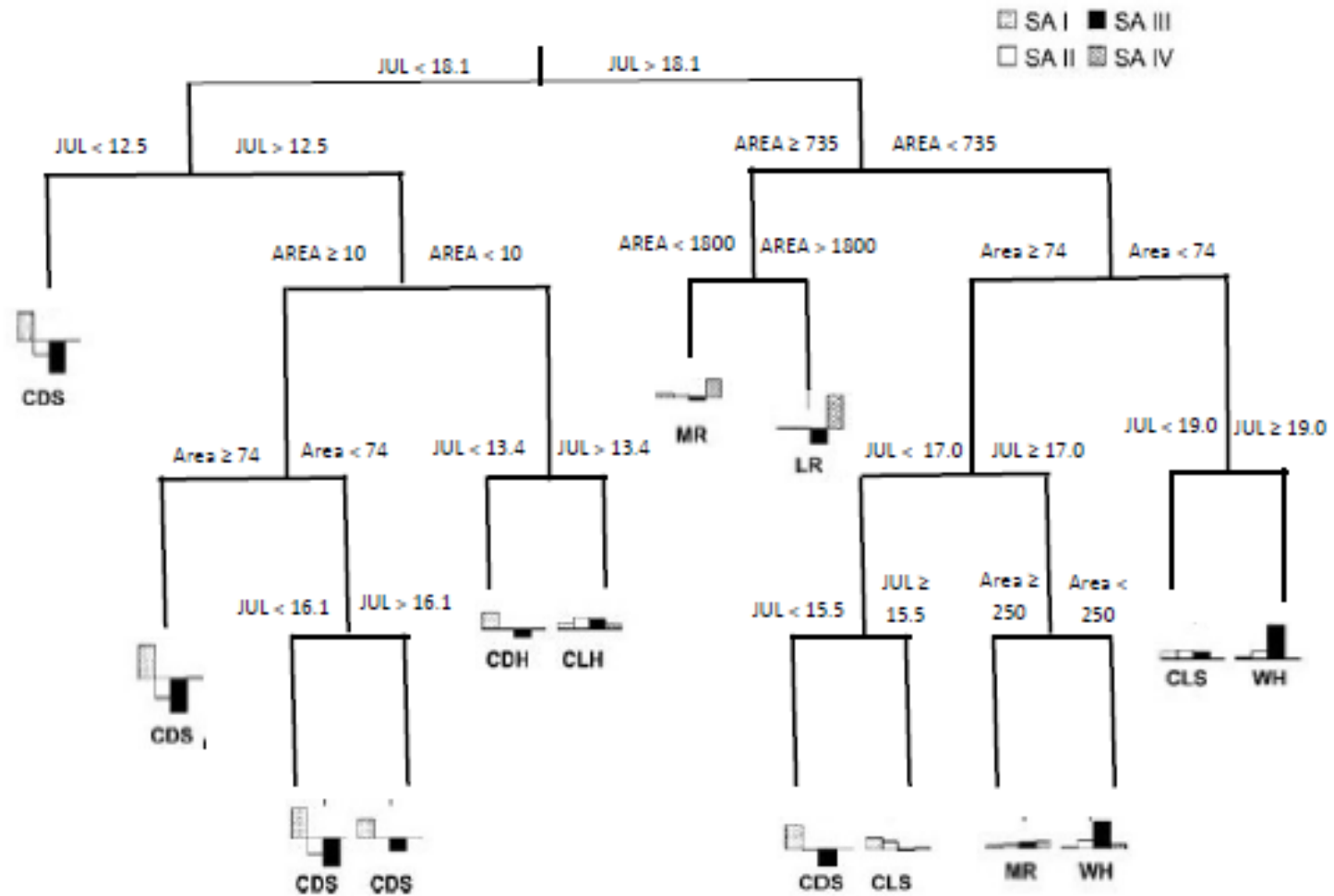
- Habitat quantity inaccessible upstream
- Habitat quality inaccessible upstream
- Level of passage
- Native migratory fish (NMF) species present below barrier
- Biological status of NMF
- Other barriers up and downstream
- Historical habitat inaccessible
- Other unique or limited habitat

2019 Habitat Quantity Inaccessible



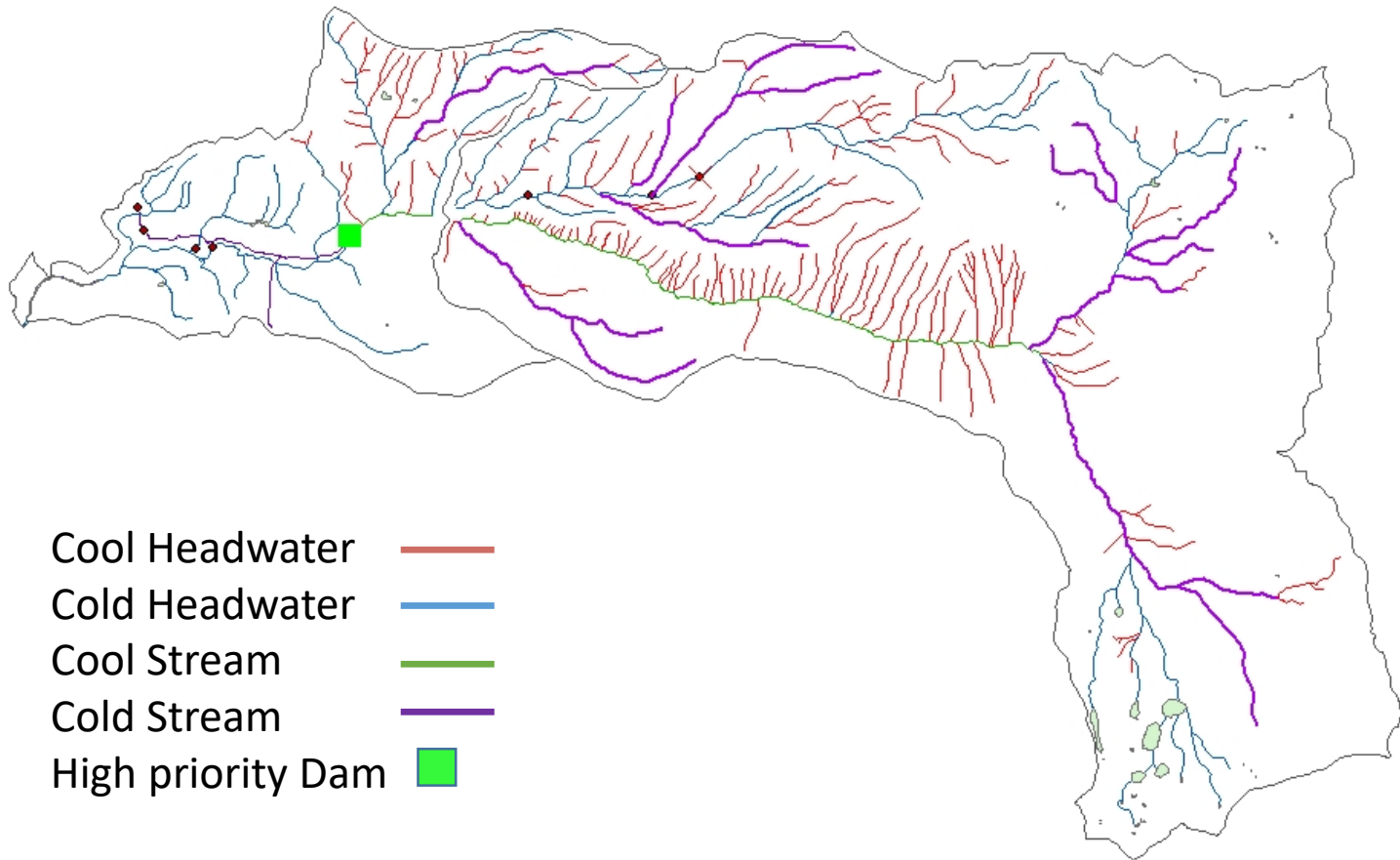
- **Trace miles of stream habitat above each barrier**
- **Remove inaccessible reaches**
- **Quantify downstream and upstream complete barriers**
- **Calculate average miles upstream of each barrier for all fish species**

2019 Habitat Quality Inaccessible



2019 Habitat Quality Inaccessible

Middle Fork Rogue River



Level of Fish Passage

- 5 - barrier to all native migratory fish,
- 4 - barrier to some fish adults and/or species,
- 3 - barrier to some fish adults and/or species for only part of migration period,
- 2 - barrier to all fish juveniles,
- 1 - barrier to some fish juveniles and/or for only part of migration period.
- 0 - Full volitional passage for all fish species,

Any score less than 5 for the “Level of Passage” ranking will **reduce** each barrier score successively by 20 %

Listed Native Migratory Fish

- 2013 Endangered Species Act Listed Fish
 - Minimum 1 = 30 points
 - Maximum 4 = 120 points
- 2019 Listed fish higher weighting based on Task Force recommendation
 - Endangered Species = 40 points
 - Threatened Species = 30 points
 - Candidate or Special Concern = 15 points

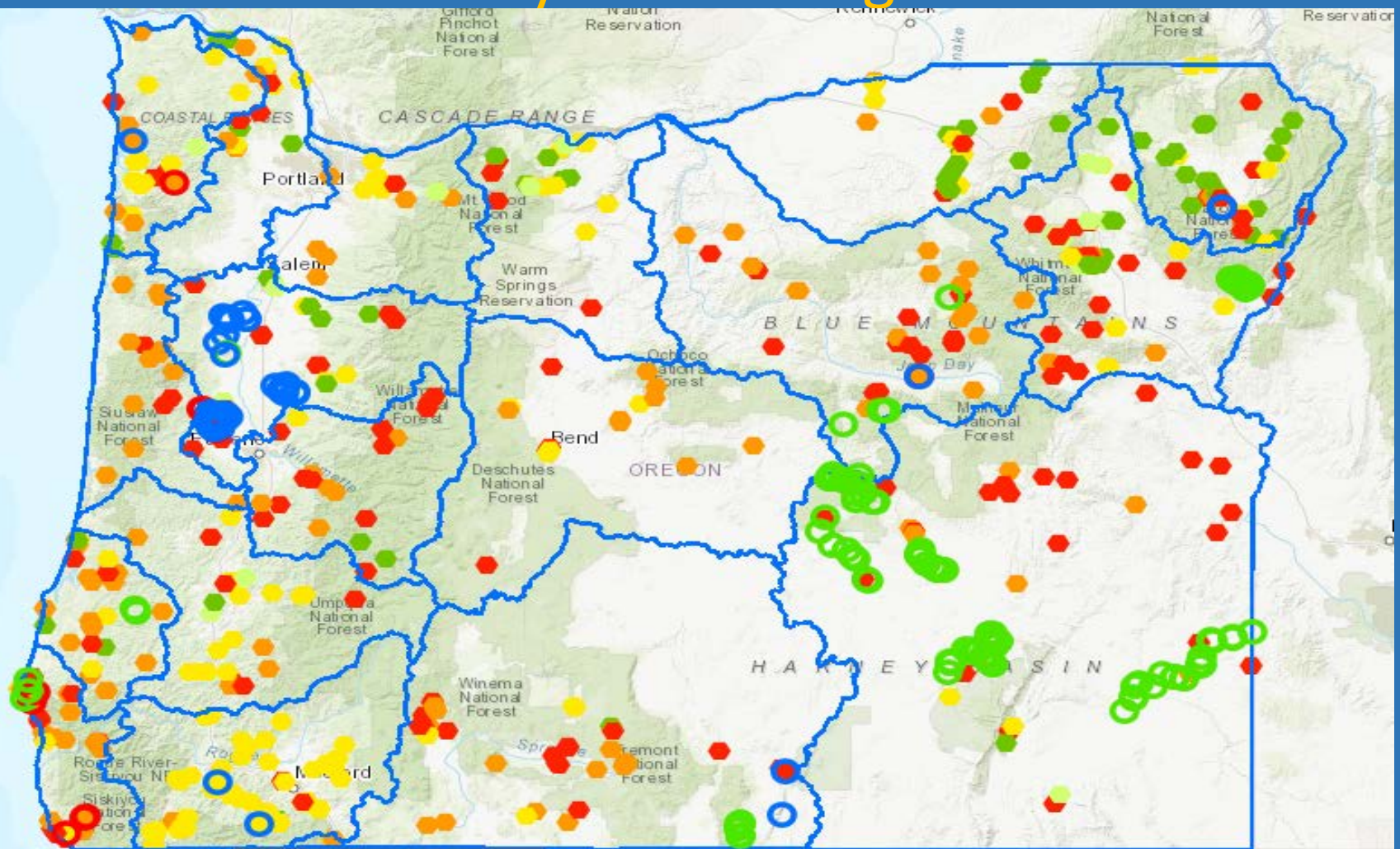
2019 Fish Passage Prioritization Results

- Inventory of 42,780 known Artificial Obstructions
 - Inventory doubled from 2013
- 591 High Priority Barriers organized into top ten plus 16 groups
 - 349 (60%) are Dams
 - 203 (34%) are Culverts
 - 32 (5%) are Other Barriers
 - 7 (1%) are Tide Gates
- Organized into the Top Ten and 16 similarly clustered “groups” by priority

2019 Top Ten Fish Passage Barriers

1. Lookout Point, Middle Fork Willamette River
2. Keno Dam, Klamath River
3. Hells Canyon Dam, Snake River
4. John C. Boyle Dam, Klamath River
5. Cottage Grove Dam, Coast Fork Willamette River
6. Brownlee Dam, Snake River
7. Big Cliff Dam, North Santiam River
8. Detroit Reservoir Dam, North Santiam River
9. Foster Reservoir Dam, South Santiam River
10. Green Peter Reservoir Dam, Middle Santiam River

ODFW Priority Fish Passage Barriers



- Barrier to some native migratory fish juveniles and / or species for only part of migration period
- Barrier to all native migratory fish juveniles
- Barrier to some native migratory fish adults and / or species for only part of migration period
- Barrier to some native migratory fish adults and / or species
- Barrier to all native migratory fish

- New partial barrier to all NMF
- New partial barrier for some NMF
- New complete barrier for some NMF
- New complete barrier for all NMF

Conclusion and Questions ?



OFWC Decision on 2019 Statewide Fish Passage Priority List

- Staff Recommendation: OFWC approval of the 2019 fish passage priority list in Exhibit E Attachment 3