

# Floodplain Connectivity Target Update

SBSRTC June 1, 2021

## Condition of Watershed Processes:

Moderately degraded or degraded

## Recovery Need:

Substantial improvement

### Mainstem Primary Restoration



# Mainstem Restoration

Restored Edge Habitat Restored: 2.02 miles  
Intact 2005: 236 miles Target: 10.4 miles

Intact 2005 10-Year Target Total Restored

Large Woody Debris Restored: 46 log jams  
Target: 41 new log jams

Intact 2005 10-Year Target Total Restored

#### Note:

Total accounts for constructed in-river mainstem log jams. It does not include floodplain log jams or wood structures used as bank stabilization or mitigation. The total does account for change over time (i.e., log jams that did not persist were removed from the total). Additional information on wood in rivers is on page 40.

Restored Off-Channel Habitat Restored: 13.72 acres  
Intact 2005: 350 acres Target: 167 acres

Intact 2005 10-Year Target Total Restored

Mainstem - Snohomish, Skykomish, Snoqualmie, Pilchuck, Sultan, Tolt and Raging Rivers

## Condition of Watershed Processes:

Moderately degraded or degraded

## Recovery Need:

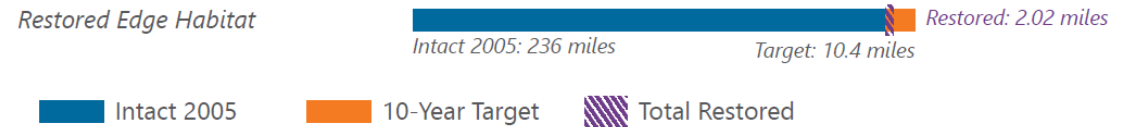
Substantial improvement

### Mainstem Primary Restoration



# Mainstem Restoration

## Restored Edge Habitat



## Large Woody Debris



### Note:

Total accounts for constructed in-river mainstem log jams. It does not include floodplain log jams or wood structures used as bank stabilization or mitigation. The total does not account for log jams that have been removed from the total. Additional information on wood in rivers is on page 40.

## Restored Off-Channel Habitat



Mainstem - Snohomish, Skykomish, Snoqualmie, Pilchuck, Sultan, Tolt and Raging Rivers

# Mainstem Restoration

## Restored Off-Channel Habitat



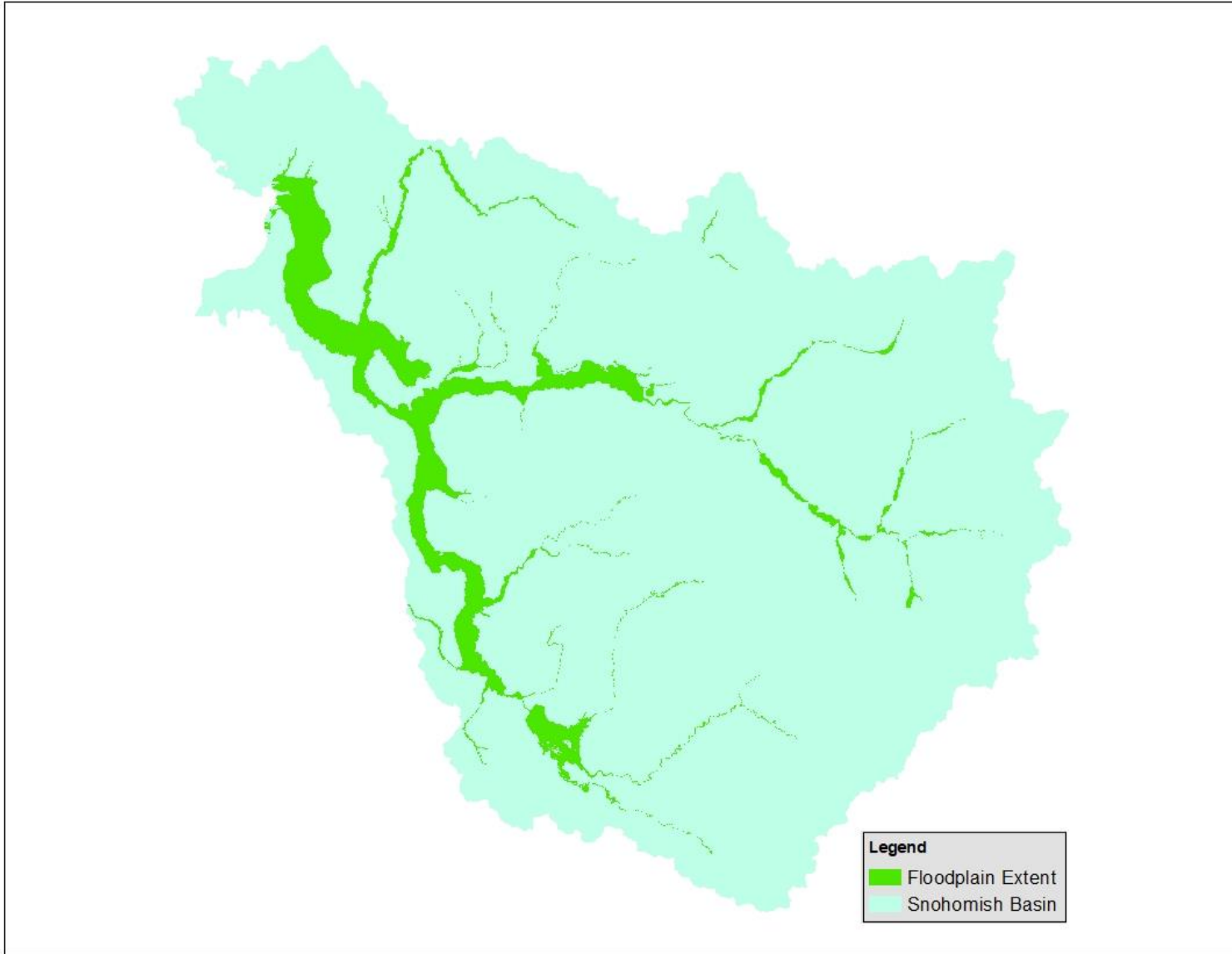
p. 61 - [https://snohomishcountywa.gov/DocumentCenter/View/71060/SnohomishBasin10YearReport\\_2019-12-30\\_reduced](https://snohomishcountywa.gov/DocumentCenter/View/71060/SnohomishBasin10YearReport_2019-12-30_reduced)

- **Off-channel habitats** are side channels, sloughs, and wetlands connected to the mainstem rivers and estuaries, even if only seasonally. These habitats are important to salmon because they provide areas for juvenile fish to rear with safety from predators, have reduced competition for space and food, and stay away from high winter flows.
- Measuring off-channel habitat is difficult in the Basin as off-channel habitat is engaged differently in the two major river basins. Because the conditions by which off-channel habitats are engaged are considerably different in the Snoqualmie and Skykomish river systems, determining a single off-channel habitat measurement is challenging.
- The Snohomish Basin Salmon Recovery Technical Committee has considered stepping away from measuring off-channel habitat, due to the complexity of defining the habitat, and instead measuring floodplain connectivity to represent the amount of area restoration projects open up for habitat-forming processes, including off-channel habitat.

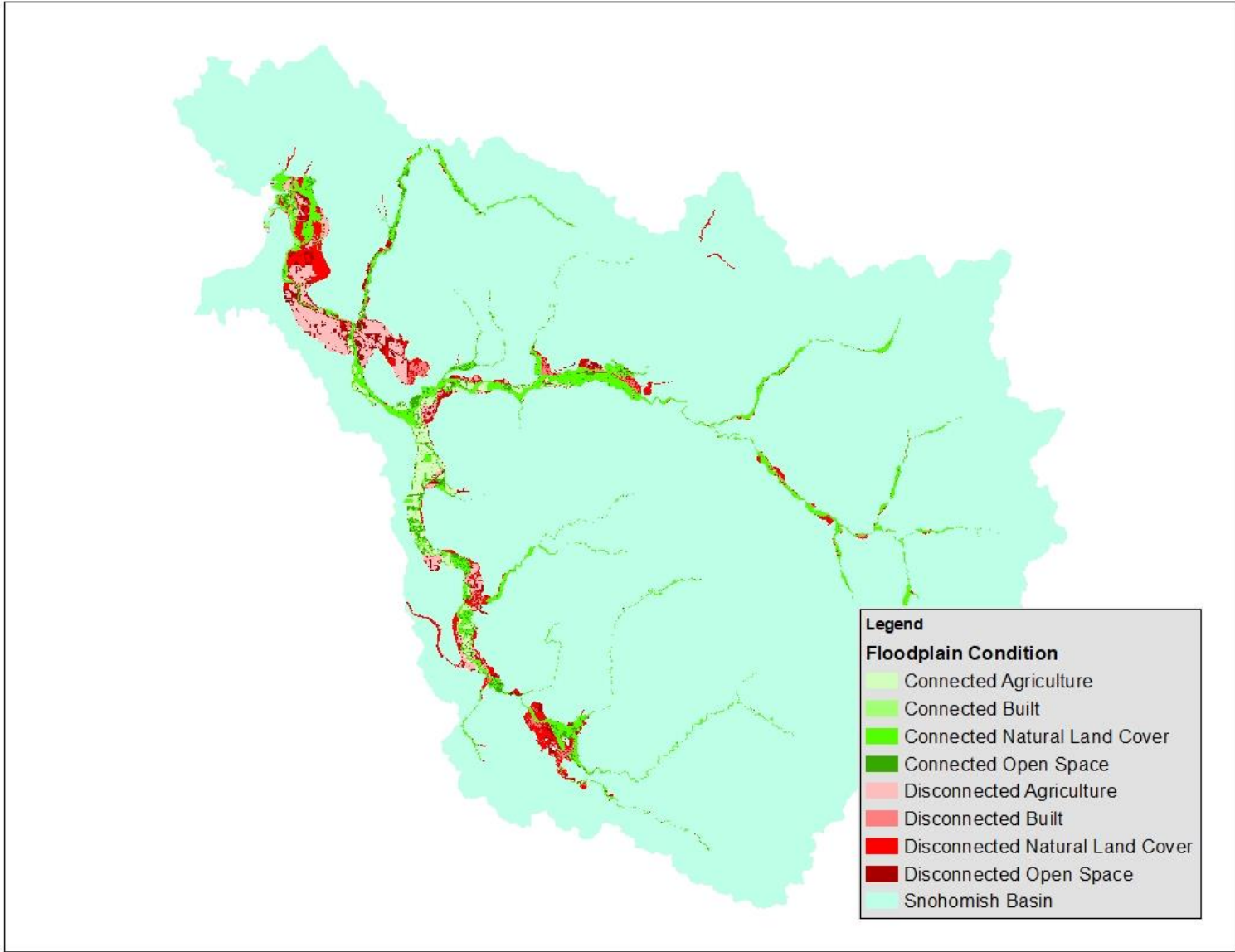
# Mainstem Restoration



- **Replace** with “**Floodplain Connectivity,**” a regional common indicator
- **Definition:** Use regional definition -
  - *Floodplain Delineation:* the floodplain extent represents a close approximation of the historic geomorphic floodplain
  - *Connectivity:* defined as “the unrestricted movement of water, biota, sediment, wood, and other materials between rivers and floodplains” ([Konrad 2015](#))
- **New approach:** *Coming – work with regional partners*

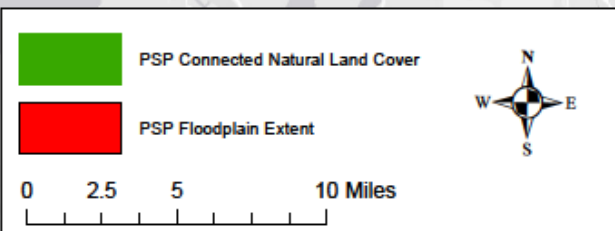


# PSP Floodplain Layer

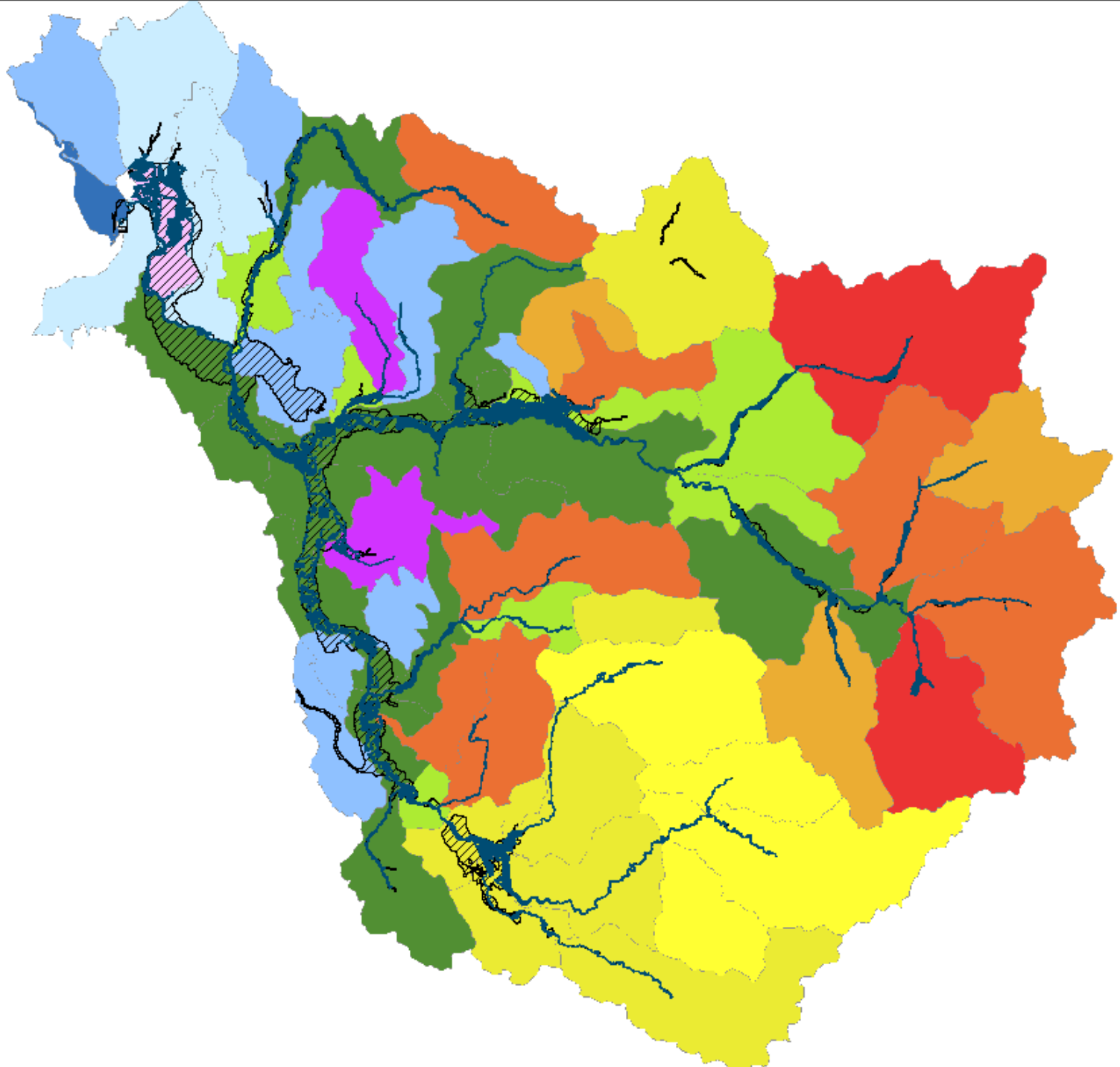


PSP  
Floodplain  
Condition  
Layer -  
NOAA C-CAP

Connected  
and “intact”  
land cover







# Caveats and Considerations

- Ideally, we would rely on Life Cycle Model output for this target... Consider this an interim target.
- There are issues with the PSP floodplain layer and improvements should be made – coordinate with PSP
- Useful for implementation target setting but will need better floodplain function attributes for tracking progress
- Using broad definition of “Functional” vs “Degraded” means improvement in condition counts toward target.

# Floodplain Connectivity Target Proposal

Sub basin Strategy Group	Connected and "Intact" Acres	Total Acres	Long-term Target %	Long-term Restoration Target Acres	Annual Target Acres	15-Year Target Acres	Notes
Nearshore Restoration	4	124	0%	N/A	N/A	N/A	Not included in Floodplain Target
Estuary Restoration	2675	8855	0%	N/A	N/A	N/A	Developing Target Independently
Urban Streams Restoration	1026	3930	0%	N/A	N/A	N/A	Not included in Floodplain Target
Mainstem - Primary Restoration	14417	39714	80%	17354	116	1735	80% goal for primary SSG.
Mainstem - Secondary Restoration	3170	6399	60%	669	4	67	60% goal for secondary SSG
Rural Streams - Primary Restoration	380	966	80%	393	3	39	80% goal for primary SSG
Rural Streams - Secondary Restoration	494	8461	60%	4583	31	458	60% goal for secondary SSG
Headwaters - Primary Protection	860	933	80%	0	0	0	More than 80% already CNLC
Headwaters - Secondary Restoration	1758	2128	60%	0	0	0	More than 80% already CNLC
Headwaters - Secondary Protection	674	762	60%	0	0	0	More than 80% already CNLC
Headwaters - Restoration Above Falls/Dam	2752	7160	50%	828	6	83	50% goal for above falls/dam SSG
Headwaters - Protection Above Natural Barriers	553	584	50%	0	0	0	More than 80% already CNLC
Total	28763	80016		23827	159	2383	

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# Next Steps for Floodplain Target

- Check in with Technical Committee for approval/guidance
  - Above falls SSG target inclusion?
  - Is Marshlands best included in MPR or Estuary SSG?
  - Any considerations for other AG or Developed Floodplain areas?
- Follow-up with PSP to discuss improvements to floodplain layer short/long-term
- Develop high-med-low alternatives?