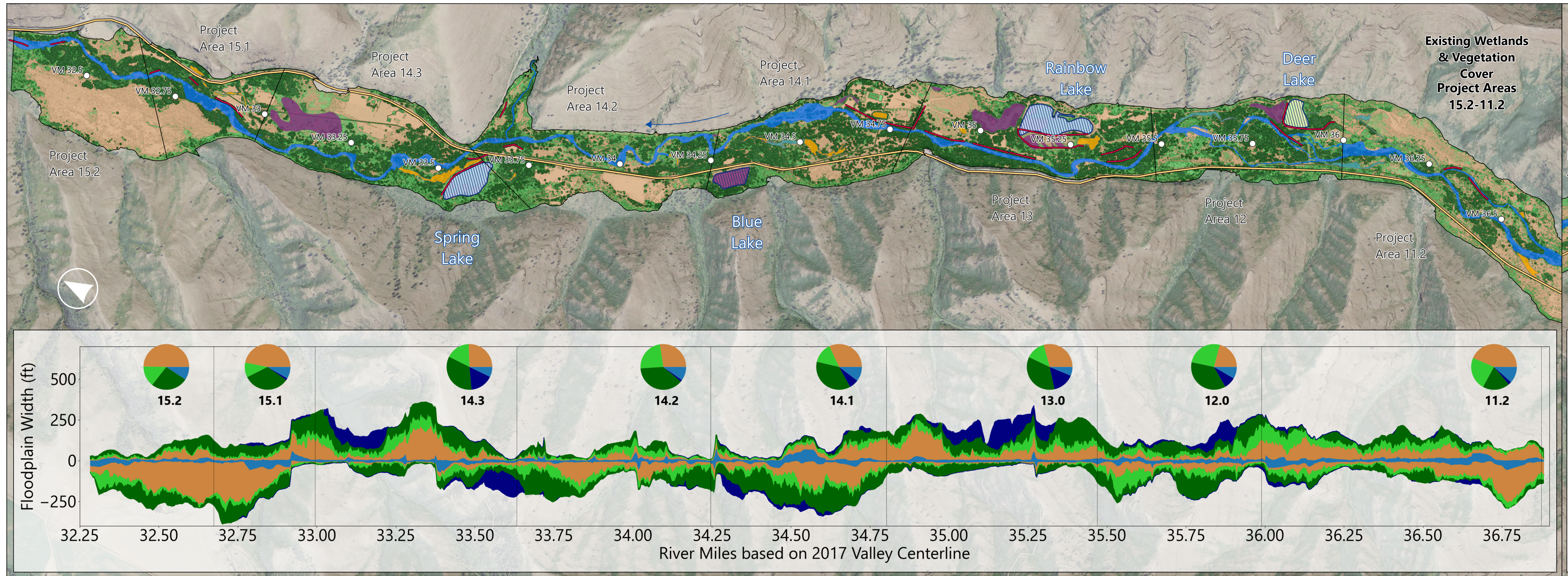
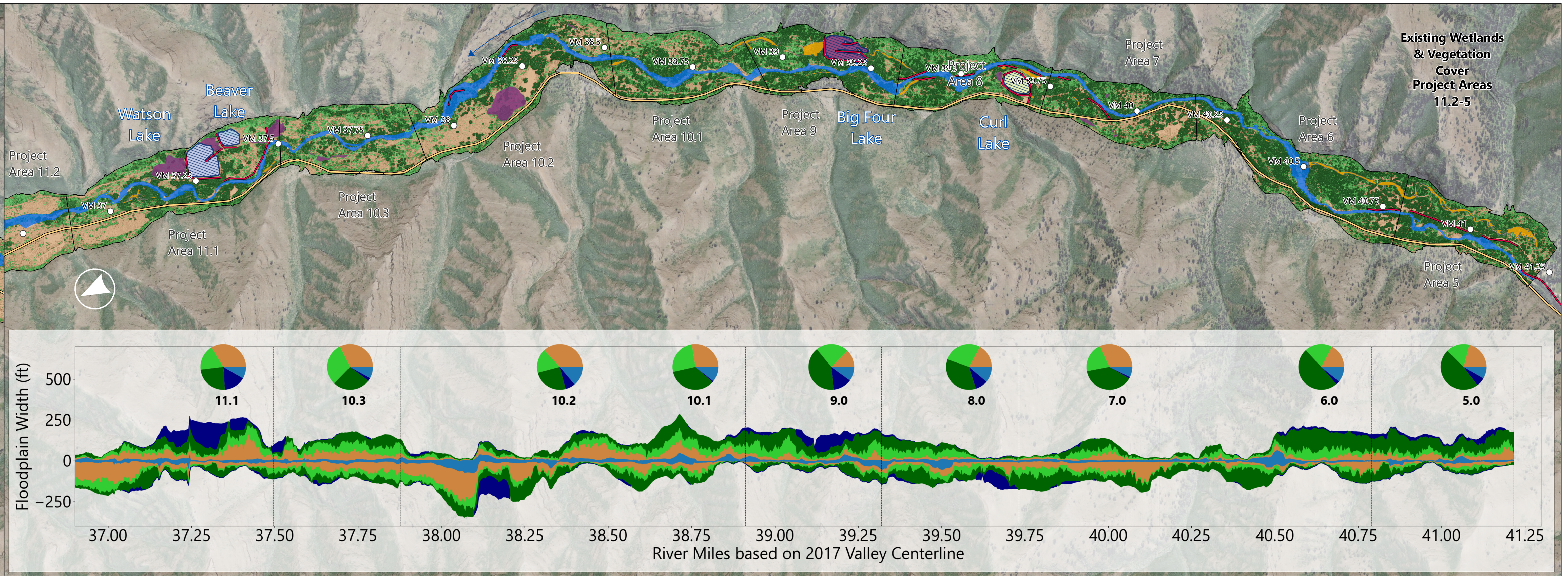
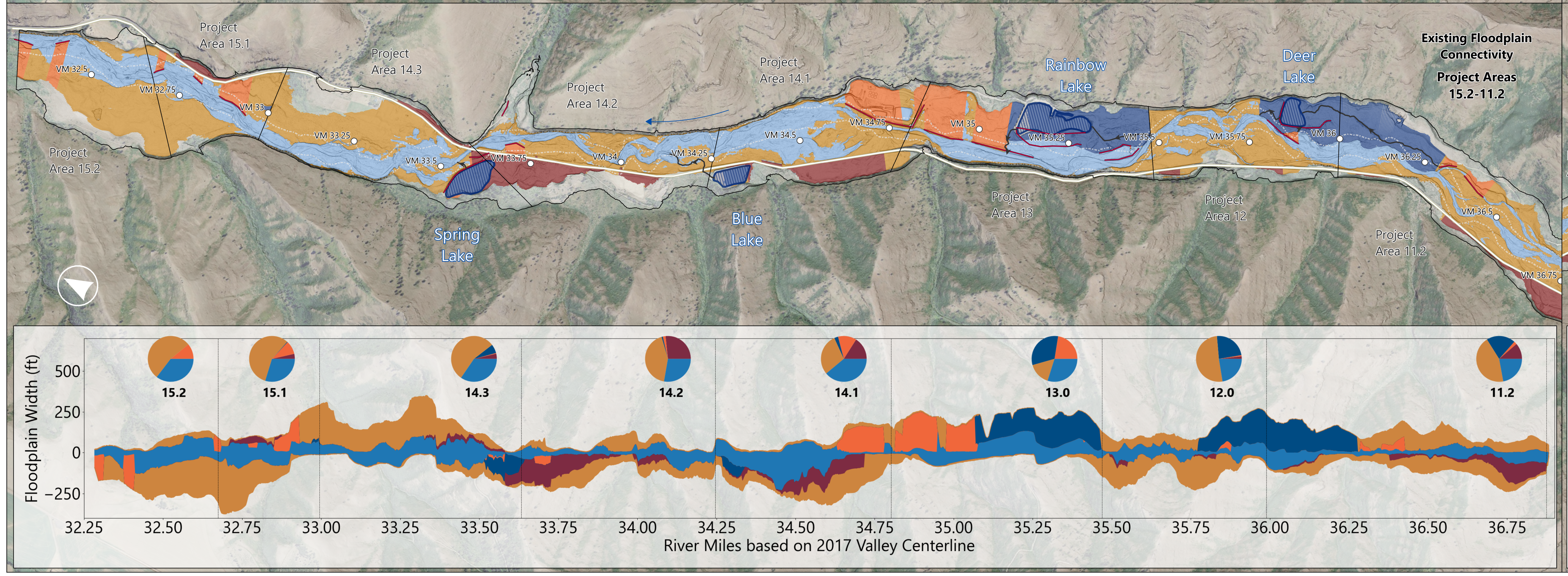
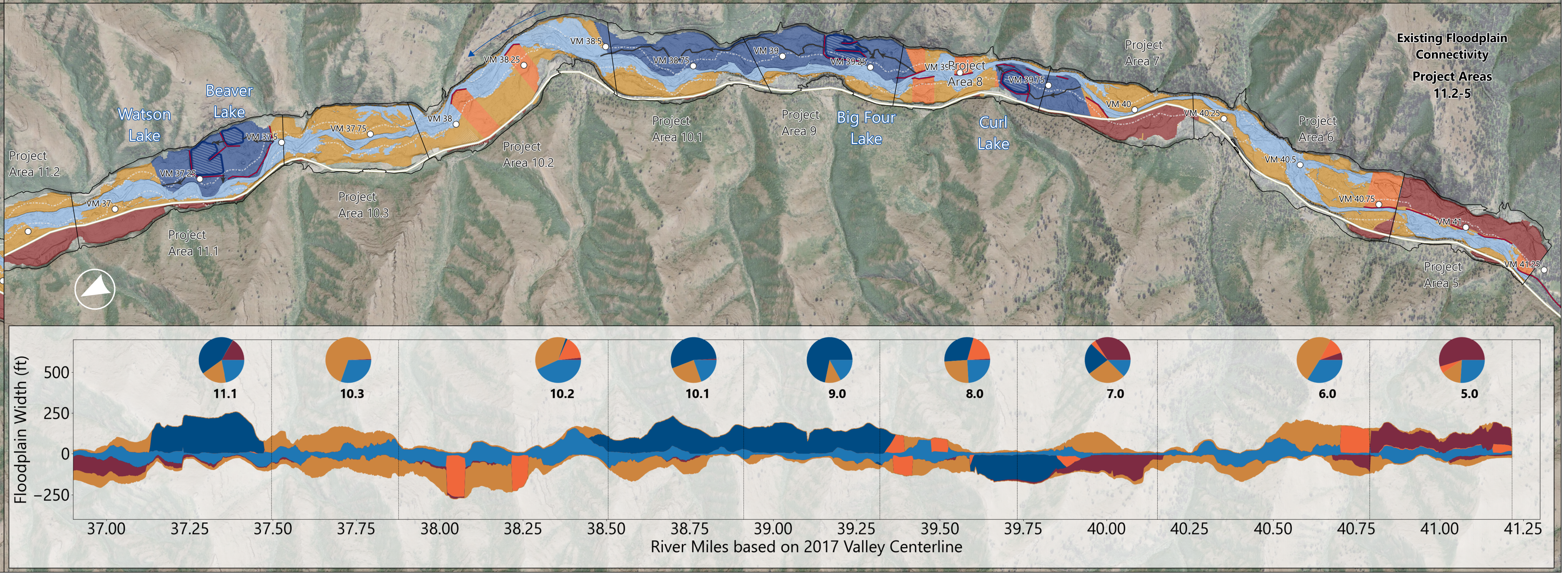



# State of the Floodplain
## Tucannon River PA 5-15

## Highlights

- River incision is the dominant factor disconnecting historic floodplains and is exacerbated by laterally confining infrastructure. This points to a need for an integrated management and restoration strategy.

- The 180 acres disconnected by lakes is ~6x their ponded area, pointing to the outsized effect of associated infrastructure (levees, intakes, and outflows) at confining the floodplain.

- Roughly 10,000 linear feet of levees disconnect the floodplain, not including levees directly associated with lakes.

0 0.25 0.5 1 Miles

## What Ecological Features Make Up the Landscape?


### Wetland Cowardin classifications

- Palustrine forested
- Palustrine emergent
- Palustrine scrub-shrub
- Palustrine unconsolidated bottom
- Palustrine emergent/Palustrine unconsolidated bottom

### Vegetation class

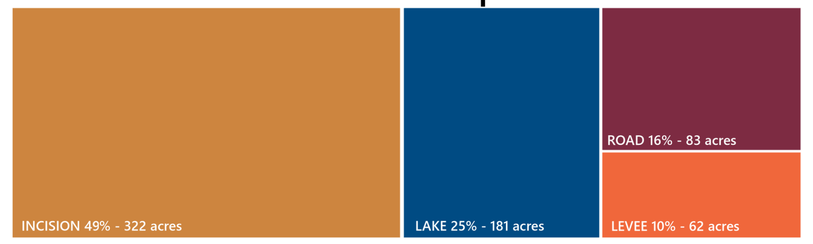
- Scrub-shrub
- Forested
- Grasses/forbs, Bare-ground, Road surface

## Floodplain Connectivity and Disconnection by Project Area

| Project area | Average Width of the Connected Flodplain | What Disconnects the Floodplain Most? | |
|---|---|---|---|
| | | Within the Floodplain | Within 300' corridor along existing channel |
| 15.2 | 330 | Incision | Levees |
| 15.1 | 328 | Incision | Levees |
| 14.3 | 318 | Incision | Incision |
| 14.2 | 185 | Incision | Incision |
| 14.1 | 371 | Incision | Incision |
| 13 | 95 | Lakes (Rainbow) | Lakes (Rainbow) |
| 12 | 207 | Incision | Incision |
| 11.2 | 180 | Incision | Incision |
| 11.1 | 181 | Lakes (Watson/Beaver) | Lakes (Watson/Beaver) |
| 10.3 | 245 | Incision | Incision |
| 10.2 | 298 | Incision | Levees |
| 10.1 | 143 | Lakes (Big Four) | Lakes (Big Four) |
| 9 | 125 | Lakes (Big Four) | Lakes (Big Four) |
| 8 | 152 | Lakes (Curl) | Lakes (Curl) |
| 7 | 83 | Roads | Incision |
| 6 | 205 | Incision | Incision |
| 5 | 171 | Roads | Incision |

flow

## What Disconnects the Floodplain?




## How Big are the Lakes and How Much of the River and Floodplain do They Affect?

| | Ponded Surface Area (acres) | Total Affected Area of Floodplain including all associated infrastructure (acres) | Length of River Affected (miles) |
|---|---|---|---|
| Spring Lake | 5.0 | NA | 0.2 |
| Blue Lake | 2.4 | NA | 0.1 |
| Rainbow Lake | 7.4 | 40.5 | 0.4 |
| Deer Lake | 2.4 | 38.6 | 0.5 |
| Watson Lake | 4.2 | 28.0 | 0.4 |
| Beaver lake | 1.4 | | |
| Big Four Lake | 3.4 | 53.4 | 0.8 |
| Curl Lake | 2.0 | 15.3 | 0.3 |

flow

## Floodplain connectivity

- Connected floodplain
- Area disconnected by road
- Area disconnected by levee
- Area disconnected by incision
- Area disconnected by lake and associated infrastructure

## Existing Conditions

- Floodplain extent (divided by project area)
- Lake
- Lake intake/outflow channels
- Minimum target floodplain width
- Wetlands*
- Levee
- Road
- Valley mile 2017

**Notes - Methods for Mapping Floodplain Connectivity and Disconnection, and Land Cover**

**Incision**: *Based on geomorphic mapping of the active floodplain, based on the extent of riparian vegetation, low floodplain topography, and modeled 10-year flood boundaries (Anchor 2021)*

**Roads**: *Floodplain areas laterally behind roadways.*

**Levees**: *Floodplain areas laterally behind levees. Levees directly associated with lakes were not included in this category.*

**Lakes**: *Areas mapped to include all floodplain between the main channel and valley toe, within the lake's "zone of influence", stretching longitudinally from lake intake to lake outflow.*

**Connected floodplain**: *Mapped as all river-adjacent floodplain areas not meeting the criteria above.*

*To map floodplain ecology we combine a planning-level assessment of wetlands and ordinary high water with an assessment of floodplain vegetation based on canopy height (CH). The floodplain was categorized into five primary ecological communities: ordinary high water, wetlands, grasses/forbs (CH < 3ft), shrub/scrub (3ft < CH < 15ft), and forested (CH > 15ft).*
**Wetlands were classified by Cowardin classification on the map but all wetland types were combined for the summary profile.*