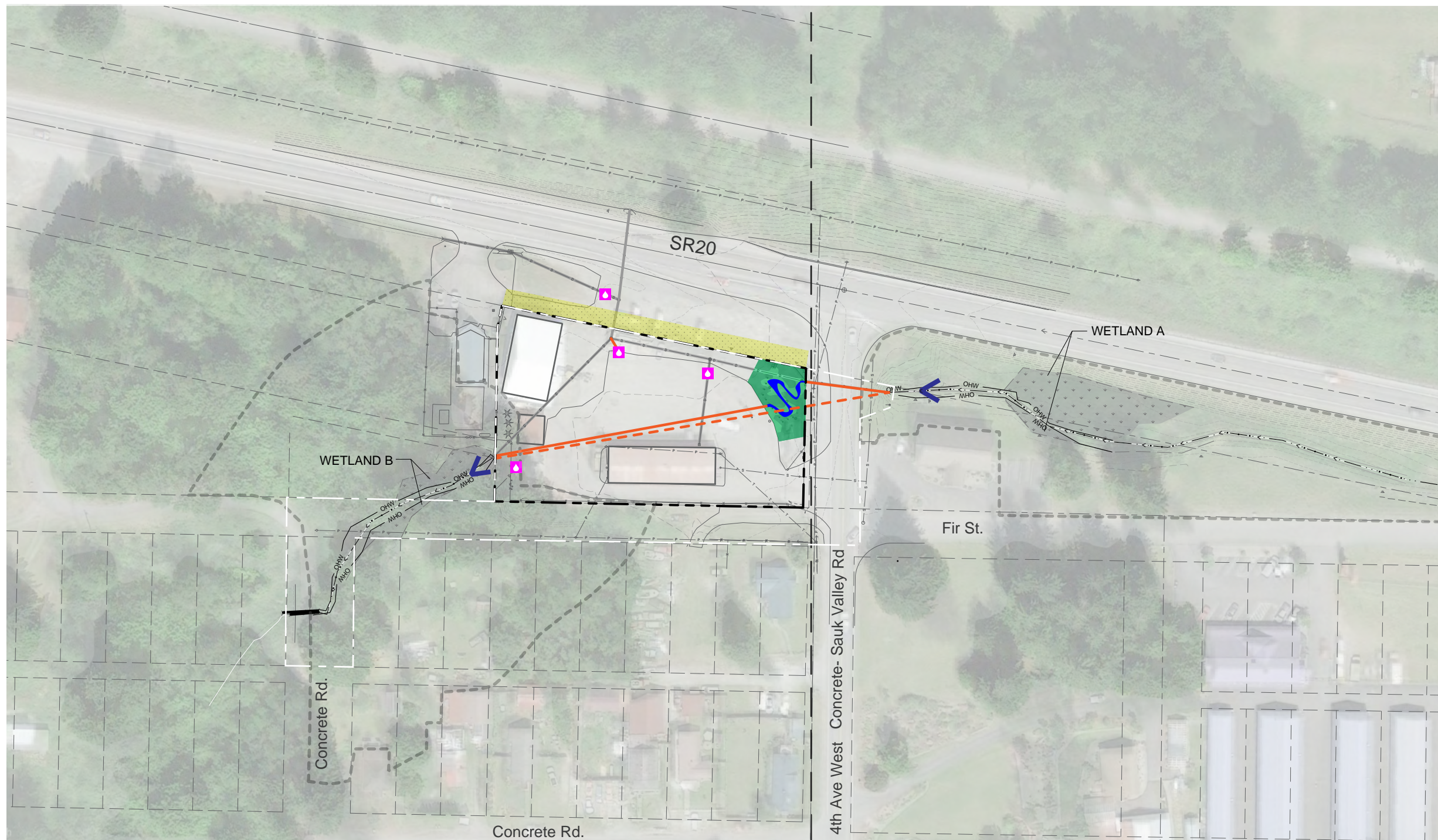


ALTERNATIVE 1



EXISTING FEATURES

- Potential Project Limits
- County Shop Parcel
- Town of Concrete Limits
- Existing Pipe/Culvert
- Ordinary High Water
- Stream Centerline
- Wetland Buffer

PROPOSED FEATURES

- New Culvert
- Alternate Culvert
- New WQ Devices
- Stream Channel
- Riparian Improvements
- Media Filter Drain (To be considered/installed by WSDOT)

DESCRIPTION

Increase Concrete-Sauk Valley Road culvert span to accommodate WDFW culvert design guidelines. Add water quality treatment devices to treat runoff from shop parcel, and replace existing drainage structures through shop parcel. Separate creek conveyance from storm drain pipes for ease of maintenance. Place creek into a new fish-passable culvert with an alignment similar to existing

PROS

- Improved fish passage
- Improve water quality in runoff from shop parcel
- Improved maintenance for onsite storm drain pipes and structures
- Maintain existing site use
- Fewer structures for fish to try to navigate
- Potentially improved upstream flooding

CONS

- Minimal ecological uplift (aside from improved water quality in runoff from site)
- May not be considered fully "fish passable" due to culvert length

COST

Capital Cost: \$\$\$

Long Term Maintenance Cost: \$\$



ALTERNATIVE 2



EXISTING FEATURES

- Potential Project Limits
- County Shop Parcel
- Town of Concrete Limits
- Existing Pipe/Culvert
- Ordinary High Water
- Stream Centerline
- Wetland Buffer

PROPOSED FEATURES

- New Culvert
- Alternate Culvert
- New WQ Devices
- Stream Channel
- Alternate Stream Channel
- Riparian Improvements
- Media Filter Drain (To be considered/ installed by WSDOT)
- Planted Berm

DESCRIPTION

Increase Concrete-Sauk Valley Road culvert span to accommodate WDFW culvert design guidelines. Add water quality treatment devices to treat runoff from shop parcel, and replace existing drainage structures through shop parcel. Daylight creek downstream of the Concrete-Sauk Valley Road culvert in narrow channel around east and south sides of shop parcel.

PROS

- Fish passable
- Reduced culvert length/increased stream channel length
- Improved water quality in runoff from shop parcel
- Improved maintenance for onsite storm drain pipes and structures
- Maintain existing site use
- Potentially improved upstream flooding

CONS

- Moderate ecological uplift
- Highly engineered, narrow stream & riparian corridor
- Constricted floodplain connection
- Increased maintenance to maintain channel alignment & capacity
- Potentially encumber neighboring property in stream/wetland buffer

COST

Capital Cost: \$
 Long Term Maintenance Cost: \$\$\$



ALTERNATIVE 3



EXISTING FEATURES

- Potential Project Limits
- County Shop Parcel
- Town of Concrete Limits
- Existing Pipe/Culvert
- Ordinary High Water
- Stream Centerline
- Wetland Buffer

PROPOSED FEATURES

- New Culvert
- Alternate Culvert
- New WQ Devices
- Stream Channel
- Riparian Improvements
- Media Filter Drain (To be considered/installed by WSDOT)
- Planted Berm

DESCRIPTION

Increase Concrete-Sauk Valley Road culvert span to accommodate WDFW culvert design guidelines. Remove all existing impervious surfaces and infrastructure from the shop parcel. Daylight creek through shop parcel, and restore channel and floodplain habitat within the shop parcel.

PROS

- Fish passable
- Maximizes ecological uplift
- Reduces hard surface area
- Minimized/eliminates pollutant potential in runoff from County shop parcel
- Potentially improved upstream flooding
- Floodplain connectivity
- Green space and community use/education
- improved geomorphic & climate change resilience

CONS

- Lose existing site use
- Potentially encumber neighboring property in stream/wetland buffer

COST

Capital Cost: \$\$*
 Long Term Maintenance Cost: \$

*Consideration for site location costs

