

Mat-Su Borough Fish Passage Program 2025



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Topics

- Locations of Culverts in the Borough
- Culverts Ratings and Upgrade Status
- Recap final data and video from Settler's Bay Drive
- 2025 Projects
 - Caswell Creek - Hidden Hills Drive
 - Birch Creek – Mastodon Drive
- Future Projects
- Partnerships and Opportunities



- ▲ Passes juvenile salmon
- ▲ Marginal, or may not be adequate to pass juvenile salmon
- ▲ Not adequate to pass juvenile salmon
- ▲ Unable to rate or culvert has been replaced and not reassessed

Mapped Flood Hazard Areas

1% Annual Chance of Flooding (previously called 100 year flood zones)

Map Created in Coordination with US Fish and Wildlife Service
 Note: Culvert survey data from AF&G, Matanuska-Susitna Borough Public Works, and US Fish and Wildlife Service. Restored culverts were replaced mostly from 1999 - 2023 for improvement of fish passage.

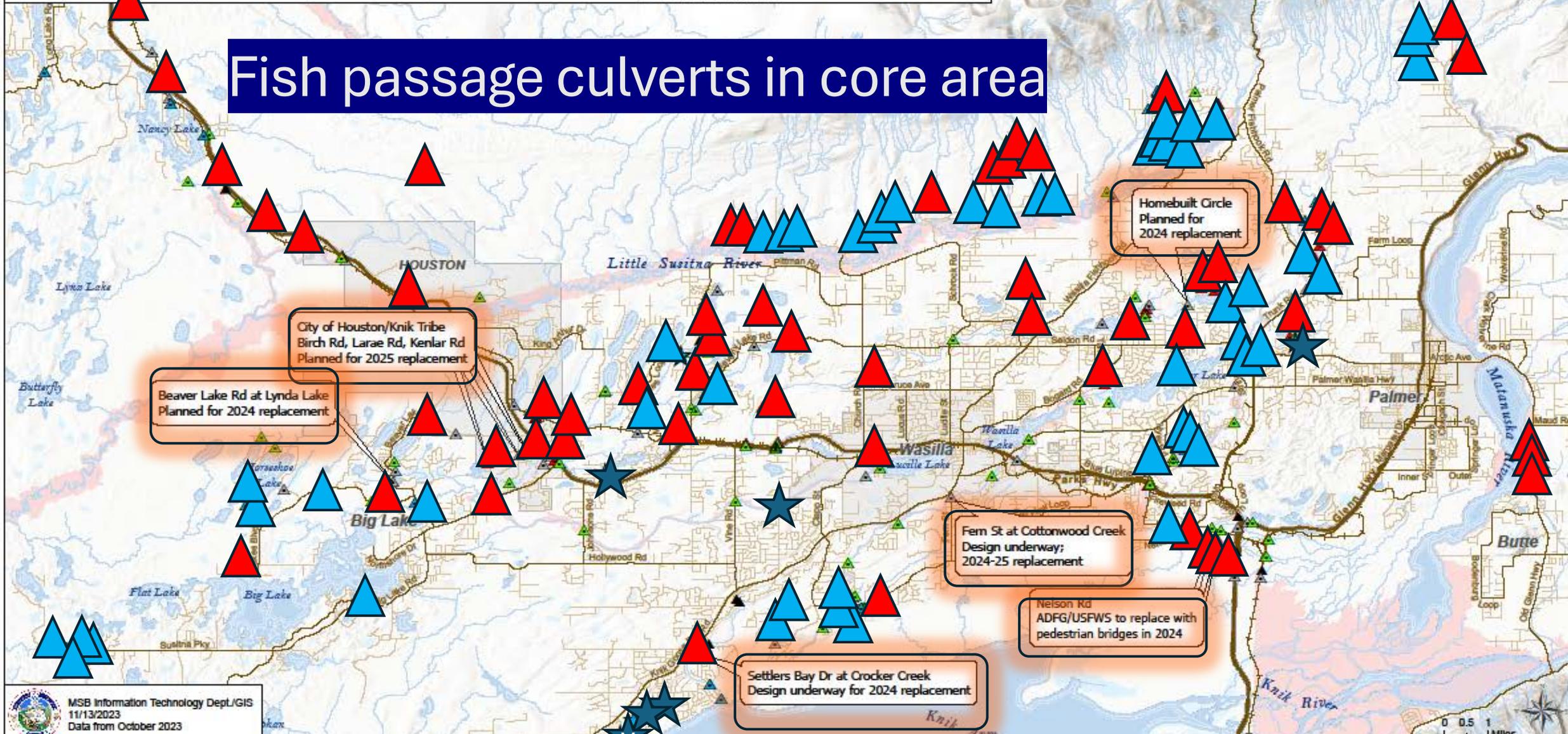


586 culverts have been surveyed in the MSB regarding fish passage.

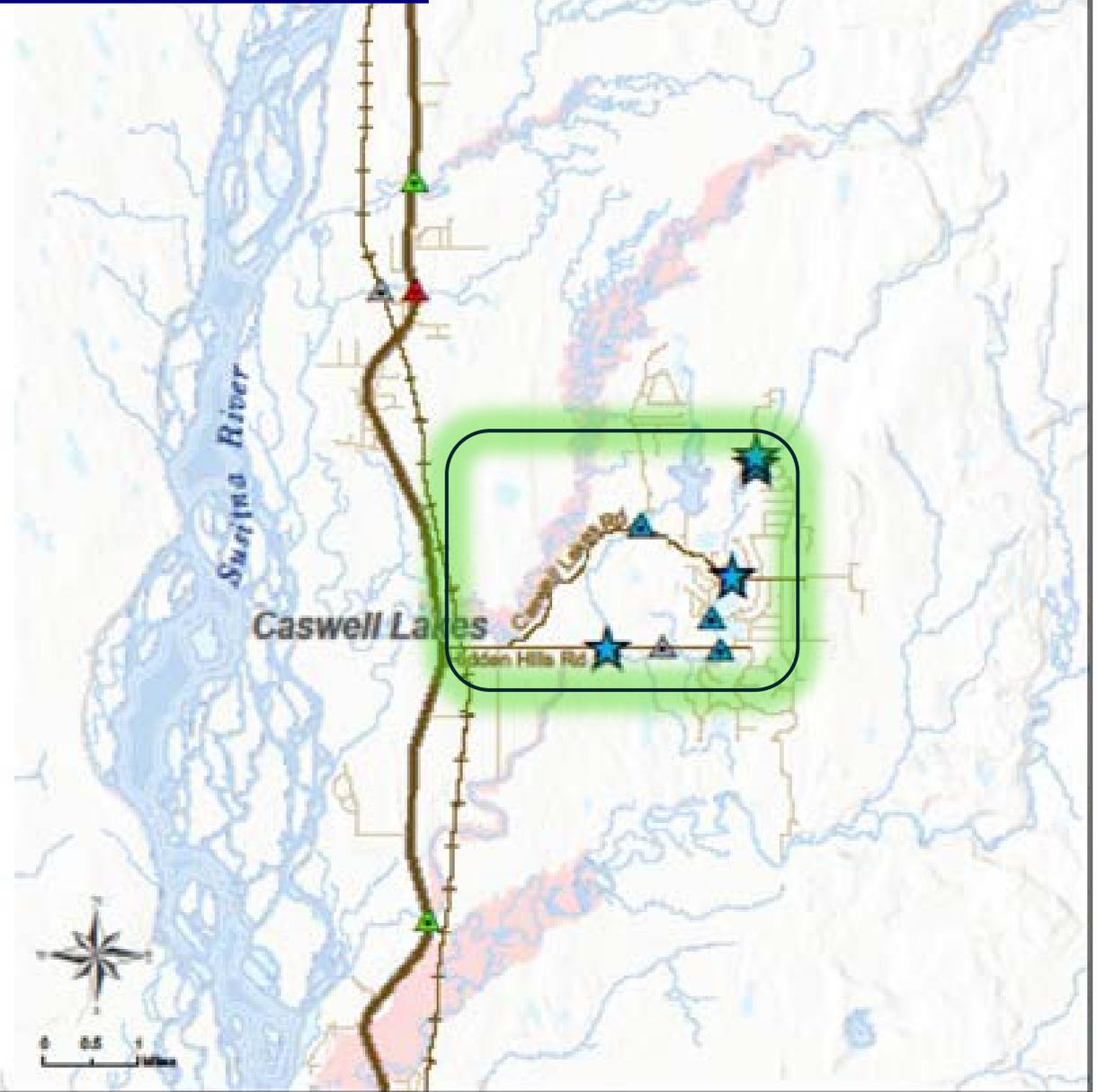
33% are likely to pass juvenile and adult salmon (blue & green), 62% may be some kind of salmon barrier (gray & red), and 5% still need to be assessed.



Fish passage culverts in core area



Fish Culverts in Willow Area- Hidden Hills

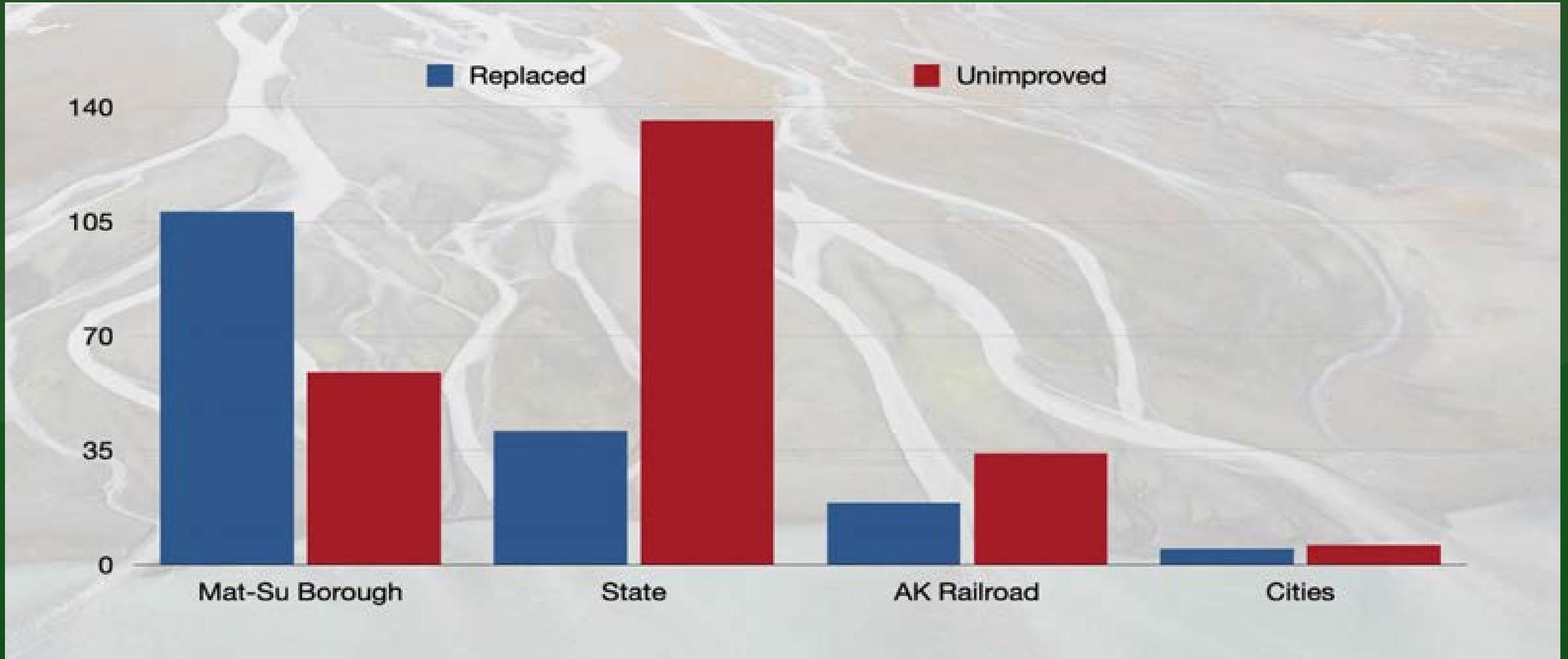


MSB Information Technology Dept./GIS
10/9/2023
Data from October 2023



Culverts Ratings and Upgrade Status

Mat-Su Borough leading the way on fish culvert replacement



2024 Settler's Bay Drive Fish Passage Replacement

- Overview – replaced a small perched culvert at the outlet of an impounded lake. Lowered impounded lake level about 3 feet
- Perch removed by constructing an extended stream channel at outlet
- New culvert is aluminum arch pipe (157 " wide x 98" tall = 13'1"x 8'2")
- Low flow meandering channel – used rock clusters to anchor
- Lake elevation control is also rock cluster 25' upstream of inlet
- Water rights issues and concerns with lake elevation change
- Traffic detour was significant and unpopular – time was critical

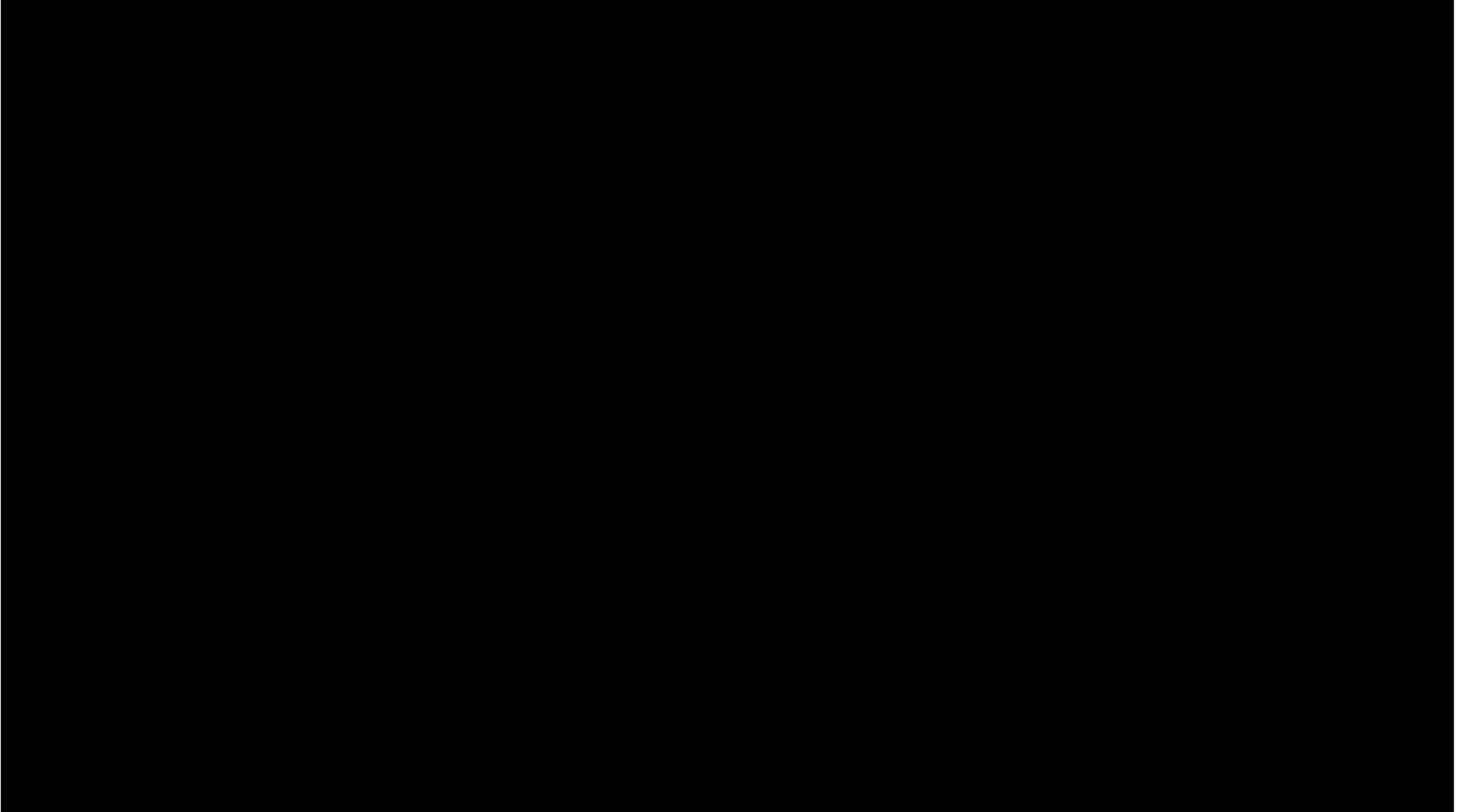
2024 Settler's Bay Drive Fish Passage Replacement

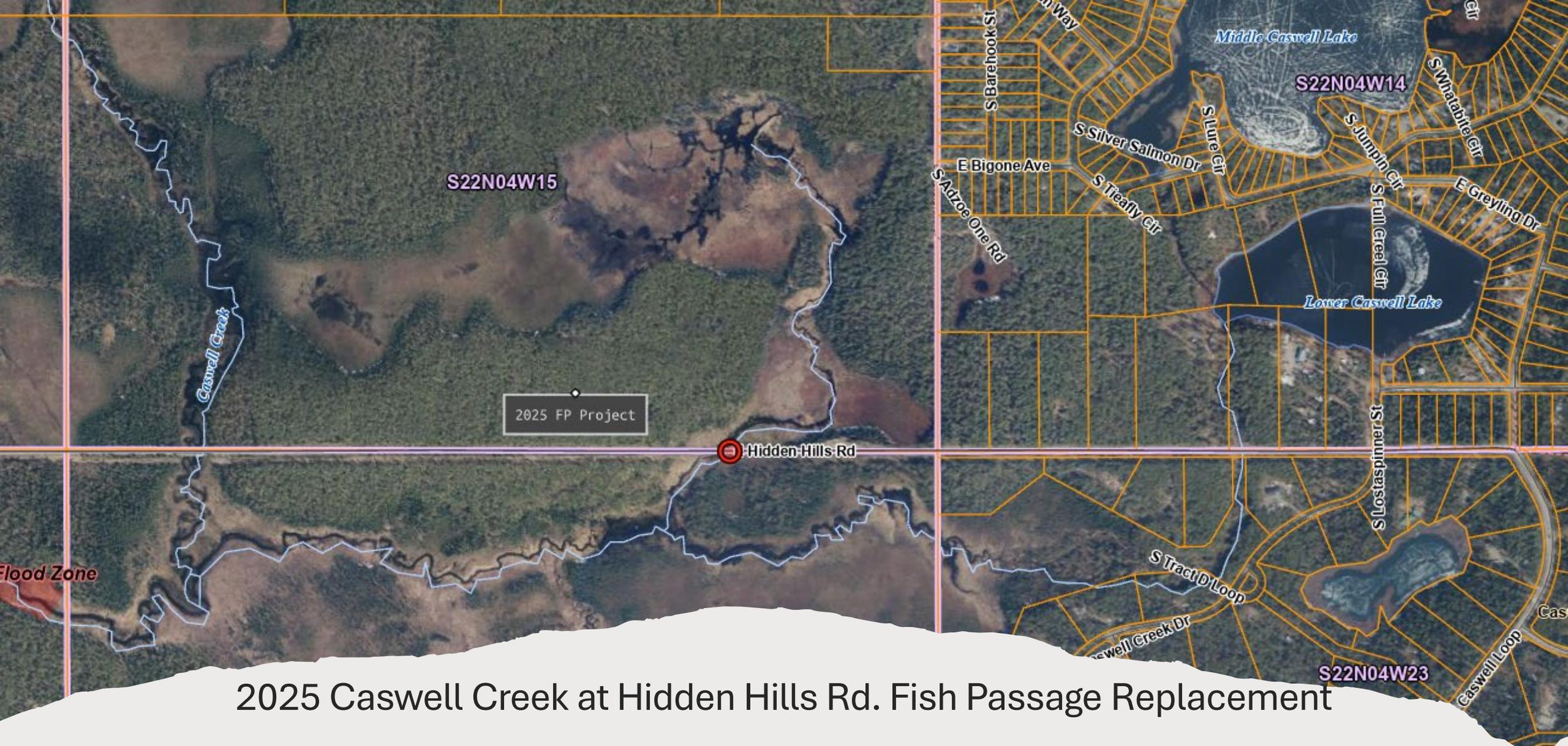


- Project Costs

| Task | Cost |
|-----------------|-----------|
| Design | \$110,979 |
| ROW Acquisition | \$2,795 |
| Utilities | \$82,870 |
| Permits | \$450 |
| Construction | \$522,586 |
| Total | \$719,071 |

Settler's Bay fish passage project 2024 - VIDEO

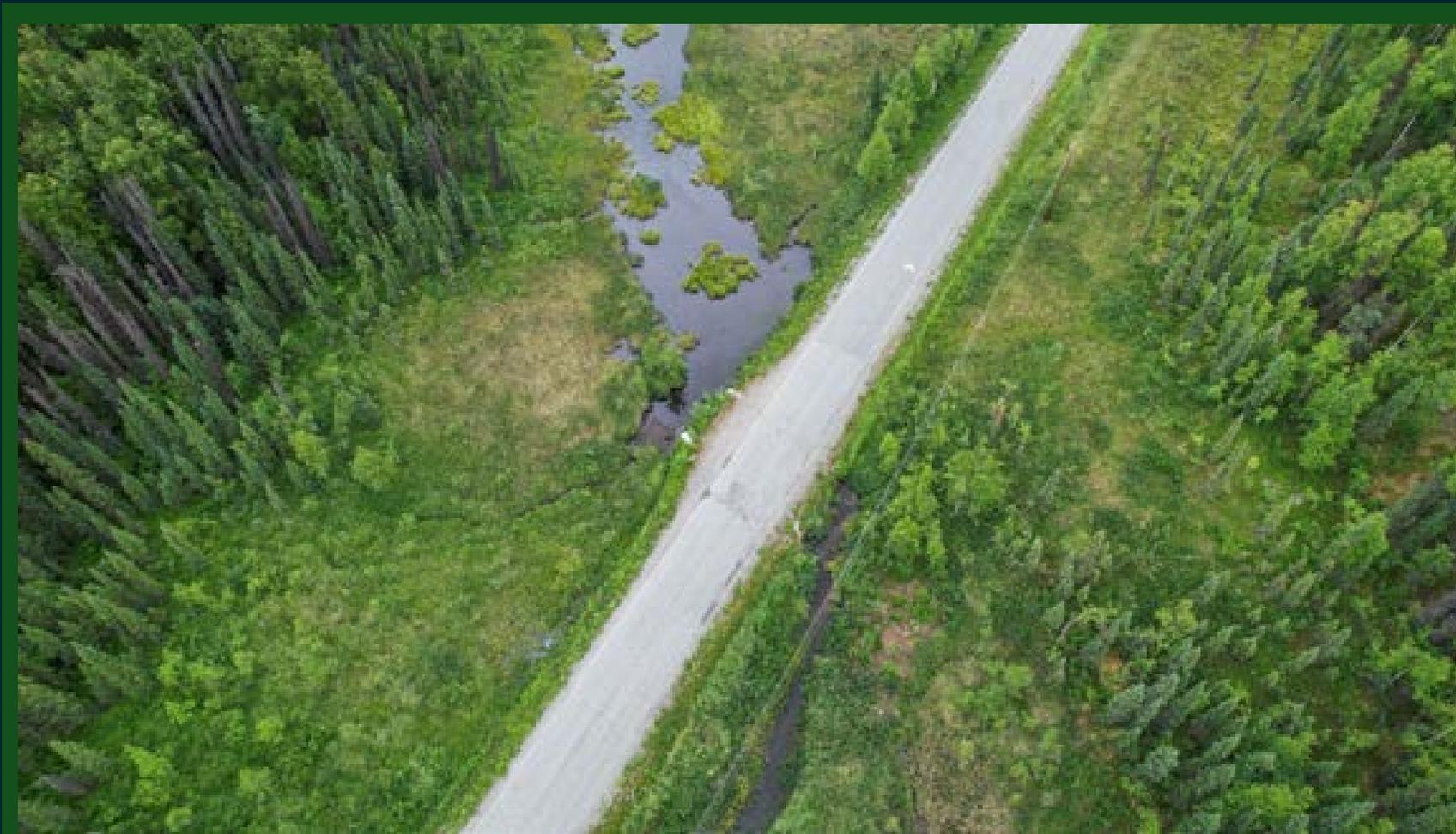




2025 Caswell Creek at Hidden Hills Rd. Fish Passage Replacement

Located on tributary to Caswell Cr. north of Willow – approx. 2 miles east of the Parks Hwy.

2025 Caswell Creek at Hidden Hills Rd. Fish Passage Replacement



- Two existing culverts impound water on north side of road.
- Lounsbury & Associates provided survey and design services as part of larger Hidden Hills Drive project.
- Granite Construction completed construction.
- Completion of fish passage program's 8 culvert replacements in the Caswell area that has been on-going for ~10 years.

2025 Caswell Creek at Hidden Hills Rd. Fish Passage Replacement



2025 Caswell Creek at hidden Hills Rd. Fish Passage Replacement

- Project Costs

| Task | Cost |
|-----------------|------------|
| Design | \$94,951 |
| ROW Acquisition | \$0 |
| Utilities | \$0 |
| Permits | ~\$2500 |
| Construction | \$683,280 |
| Total | ~\$781,000 |

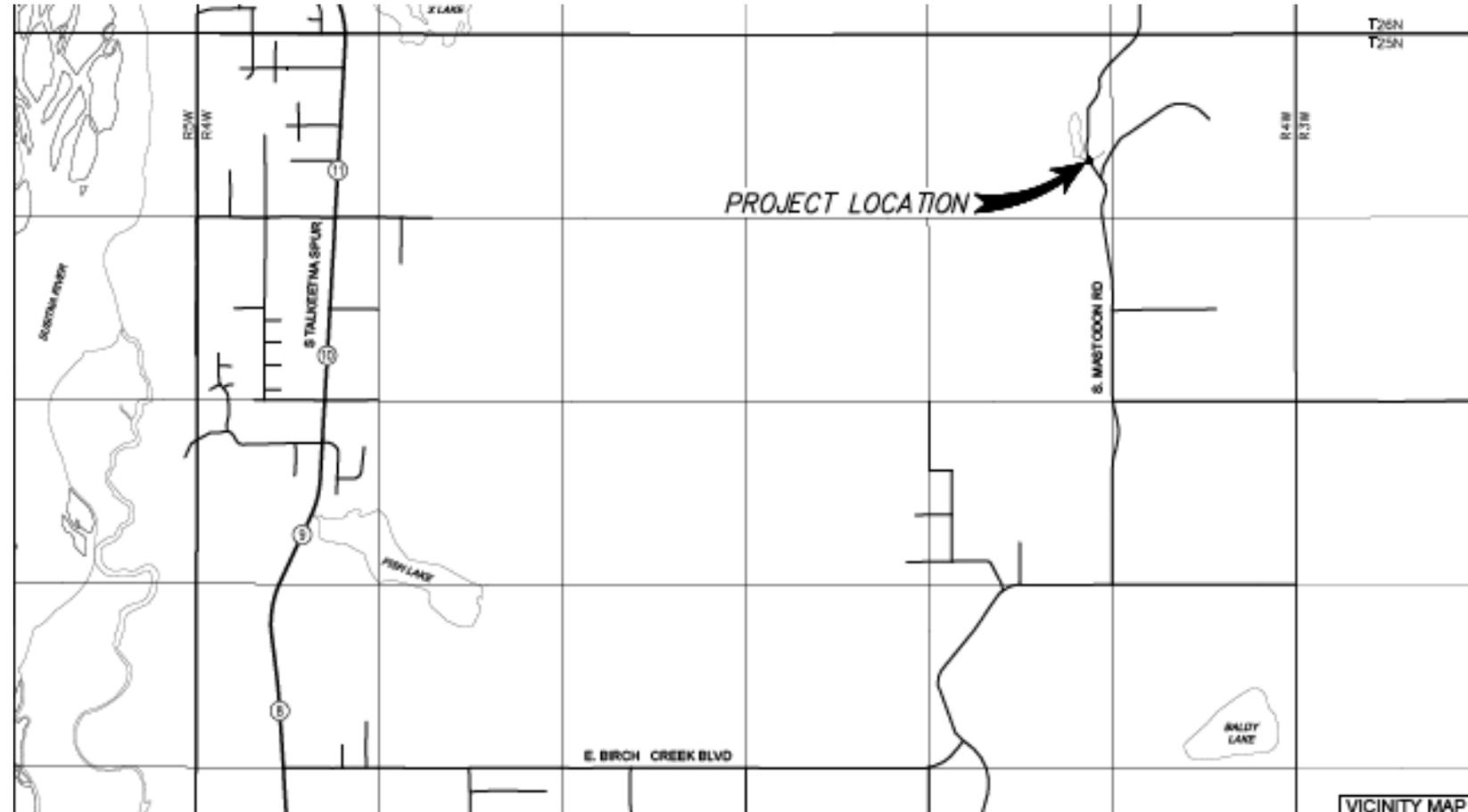


2025 Caswell Creek at Hidden Hills Rd. Fish Passage Replacement



2025 Birch Creek at Mastodon Rd. Fish Passage Replacement

- Located near Talkeetna – near end of and unmaintained road approx. 4 miles east of the Spur Road.



2025 Birch Creek at Mastodon Rd. Fish Passage Replacement



2025 Birch Creek at Mastodon Rd. Fish Passage Replacement

- Construction highlights

- Contractor – JRF Enterprises – 1st time working on a fish passage project. NCT as a sub-contractor who did most of the earthwork.
- JRF had some difficulty with the structural plate assembly.
- Work started late in August due to funding restrictions, the project had to be completed this year. Flow restored to natural channel two days before freeze-up for winter.
- Diversion achieved with super sacks and we through a large existing overflow culvert.
- Used on-site materials to maximum extent, including screened structural fill and large cobbles for riprap in streambed mixture.
- Project is shut down for the winter. Revegetation and final streambank work planned for spring '26.



2025 Birch Creek at Mastodon Rd. Fish Passage Replacement – construction



2025 Birch Creek at Mastodon Rd. Fish Passage Replacement – construction



2025 Birch Creek at Mastodon Rd. Fish Passage Replacement

- Project Costs

| Task | Cost |
|-----------------|---------------------------------------|
| Design | \$15,000 - survey only, design by MSB |
| ROW Acquisition | \$0 |
| Utilities | \$0 |
| Permits | \$0 - permitting by MSB |
| Construction | ~\$450,000 |
| Total | ~\$ 465,000 |



2025 Birch Creek at Mastodon Rd. Fish Passage Replacement



Birch Creek

[Birch Creek Fish Passage Restoration - Alaska](#)



Upcoming Fish Habitat Projects

- Cottonwood Cr at Fern Street - construction in 2026
- Cottonwood Cr at Homebuilt Circle - construction in 2026
- Lynda Lakes at Beaver Lake Road – postponed indefinitely due to pike infestation
- Cheri Lake tributary to Meadow Creek at three City of Houston Roads – awaiting funding agreement from tribe and FHWA
- Anderson and Kings Lakes – construction in 2027
- Wasilla Creek tributary at 49th State Street and Tern Drive – applied for funding thru AKSSF
- Wasilla Creek tributary at Bonnie Drive – applied for funding through NOAA



Thank you to our partners

Many of these projects are not possible without technical and financial assistance. Currently, the Borough is partnering with:

- City of Wasilla on Fern Street - City provided match funding, MSB grant and project management
- Knik Tribe and City of Houston – Knik Tribe is providing grant management, MSB providing design and construction management
- DOT&PF – working with MSB on scoping the replacement of two culverts on Palmer-Fishhook Drive and supporting MSB fund request for two more on Bonnie Drive.
- ADF&G – technical and grant writing assistance, fish trapping, AKSSF funding for FP
- USFWS – technical and grant assistance and field work, project funding

A group of approximately 20 people, including men, women, and children, are gathered on a stone ledge overlooking a stream. The stream flows over a rocky bed, and a small, arched bridge spans across it. The scene is surrounded by lush green foliage and trees, suggesting a park or natural area. The word "Questions" is overlaid in white text on the bridge.

Questions