



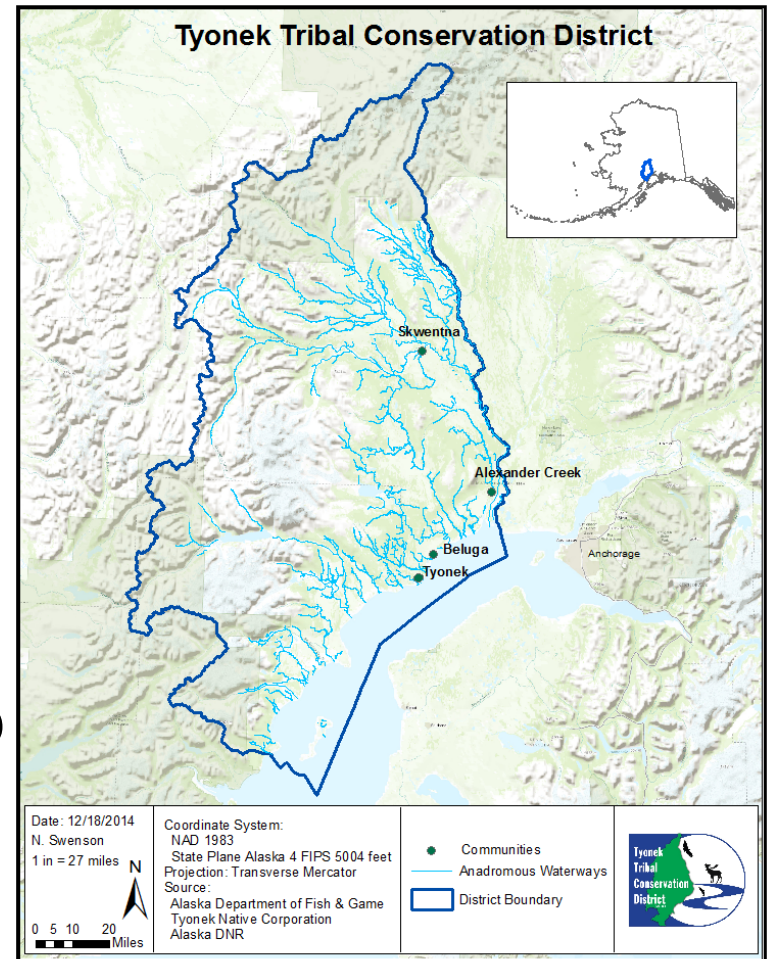
Tyonek Tribal Conservation District Fish Passage & Habitat Program

November 18, 2015

Mat-Su Salmon Science & Conservation Symposium

TTCD Background

- **Mission:** To conserve, enhance, and encourage the wise use of natural resources.
- Share boundaries with GMU 16B.
- Provide technical and financial assistance to stakeholders in District to address conservation goals.



What is a Tribal Conservation District?

- Formed in 2005 through mutual agreement between tribe, native corporation, and USDA
- 43 TCDs in US, 13 in AK
- TTCD first acquired staff in 2011



TTCD serves as a forum for natural resource decision making involving local community members and tribal entities.

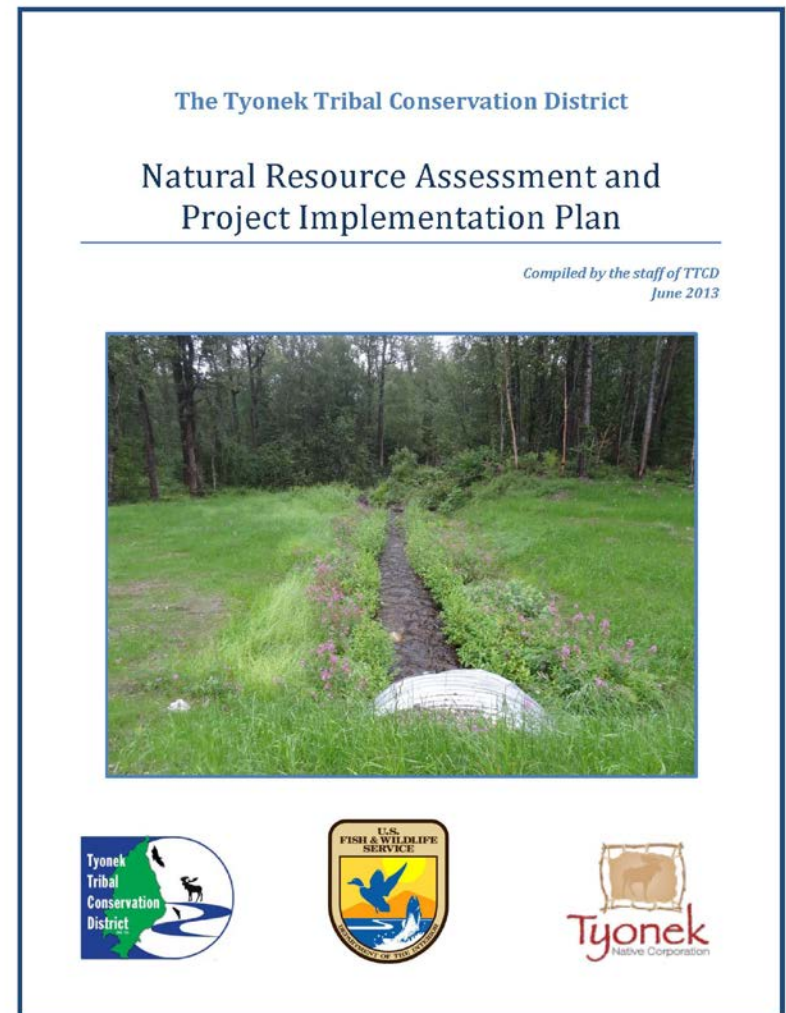
Programs

- Fish Passage & Habitat
- Tyonek Grown
- Technical Assistance
- Tyonek Youth Conservation Science (TYCS)



Natural Resource Assessment & Project Implementation Plan

- In 2012, received funding through USFWS to develop plan to identify conservation needs and data gaps
- Completed in 2013
- Document identified several potential projects, including fish passage projects and need for a watershed plan



Fish Passage Restoration Projects

- **Indian Creek**
 - Installed in 2012, revegetation completed in 2013
 - Opened up 1.5 miles of salmon habitat
- **Tyonek Creek**
 - Installed in 2014
 - Opened up 11 miles of salmon habitat
- **Old Tyonek Creek (Robert's Creek)**
 - Installed in 2015
 - Opened up 10 miles of salmon habitat

Indian Creek Culvert Replacement



BEFORE

- 2' culvert
- Frequent washouts led to gravel streambanks
- No vegetation

AFTER

- 8' culvert
- Revegetation work
- Prevented washouts in 2013 flood
- Opened up 1.5 miles habitat



Tyonek Creek Culvert Replacement



BEFORE:

- 5' culvert, frequent washouts
- Undersized and perched, barrier to fish passage

AFTER

- 17' culvert
- Allows fish passage and holds up to flood events
- Opens up an additional 11 miles of fish habitat



Old Tyonek Creek Culvert Replacement



- 2 5' culverts
- Undersized, perched
- Blocking fish habitat
- Washed out 2x in last 3 years

Old Tyonek Creek Culvert Replacement

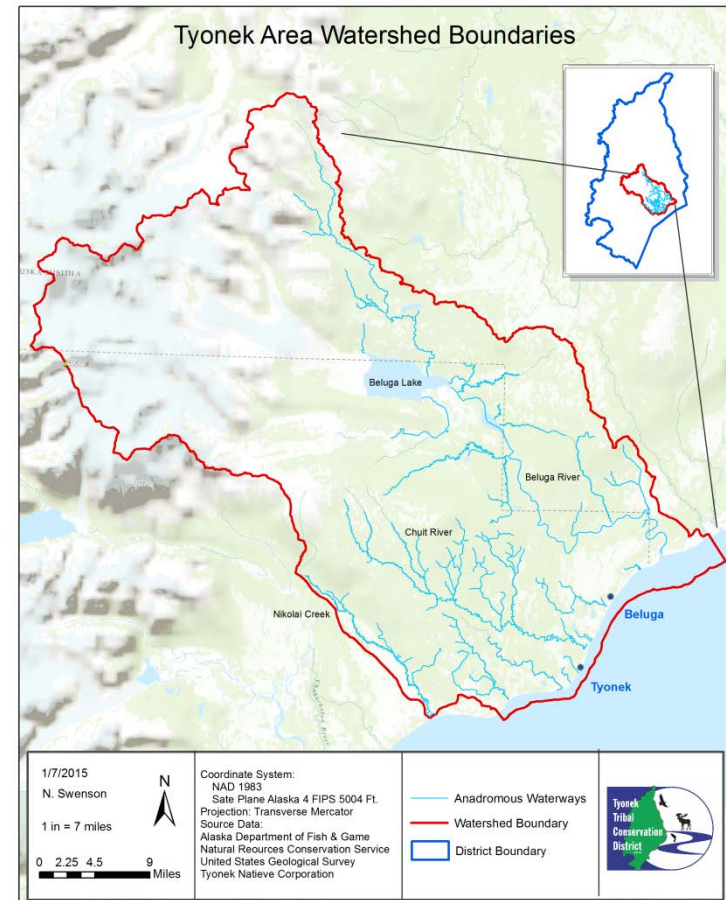


- Installed 28' wide, 13' high steel plate bottomless culvert
- \$1.13 Million Project
- 10.45 miles additional habitat now open to salmon



Tyonek Area Watershed Action Plan

- Started in late 2014, funded through USFWS and NRCS
- Project funded until 2020
- Goal: Provide a framework to restore, enhance, and protect the freshwater systems in this area



Tyonek Area Watershed Action Plan

- Community meetings held in Tyonek and Beluga
- Community concerns:
 - Water quality
 - Invasive species
 - Healthy fish populations
 - Fish Passage
- Established Scientific Advisory Committee



Tyonek Area Watershed Action Plan: Monitoring

- In 2015, collected data on:
 - Stream temperatures (5 streams)
 - Fish populations, AWC
 - Invasive plants
 - Pike locations
 - Derbies & eDNA sampling



Tyonek Area Watershed Action Plan: Issues Addressed

- In 2015:
 - Pike removed – 85 pike through 2 derbies
 - Common tansy removal
 - Removed 5,000 lbs lead batteries
 - Old Tyonek Creek culvert replacement



Invasive Pike Issues

- In 2015, TTCD held two pike derbies
- Total of 85 pike removed from area through derbies



Invasive Plant Survey & Control

- In 2014 & 2015, TTCD staff surveyed four communities within TTCD: Tyonek, Beluga, Skwentna, and Alexander Creek.
- Project funded through AACD and USFWS.
- Control work has begun in Tyonek and we will continue to plan and implement in 2016



Tyonek Area Watershed Action Plan: 2016 Plans

- Continue to collect data on:
 - stream temperatures,
 - fish populations,
 - invasive species
- Culvert prioritization
- Pike derbies
- Continue to gather community input
- Develop long-term plan with advisory committee



Questions?

