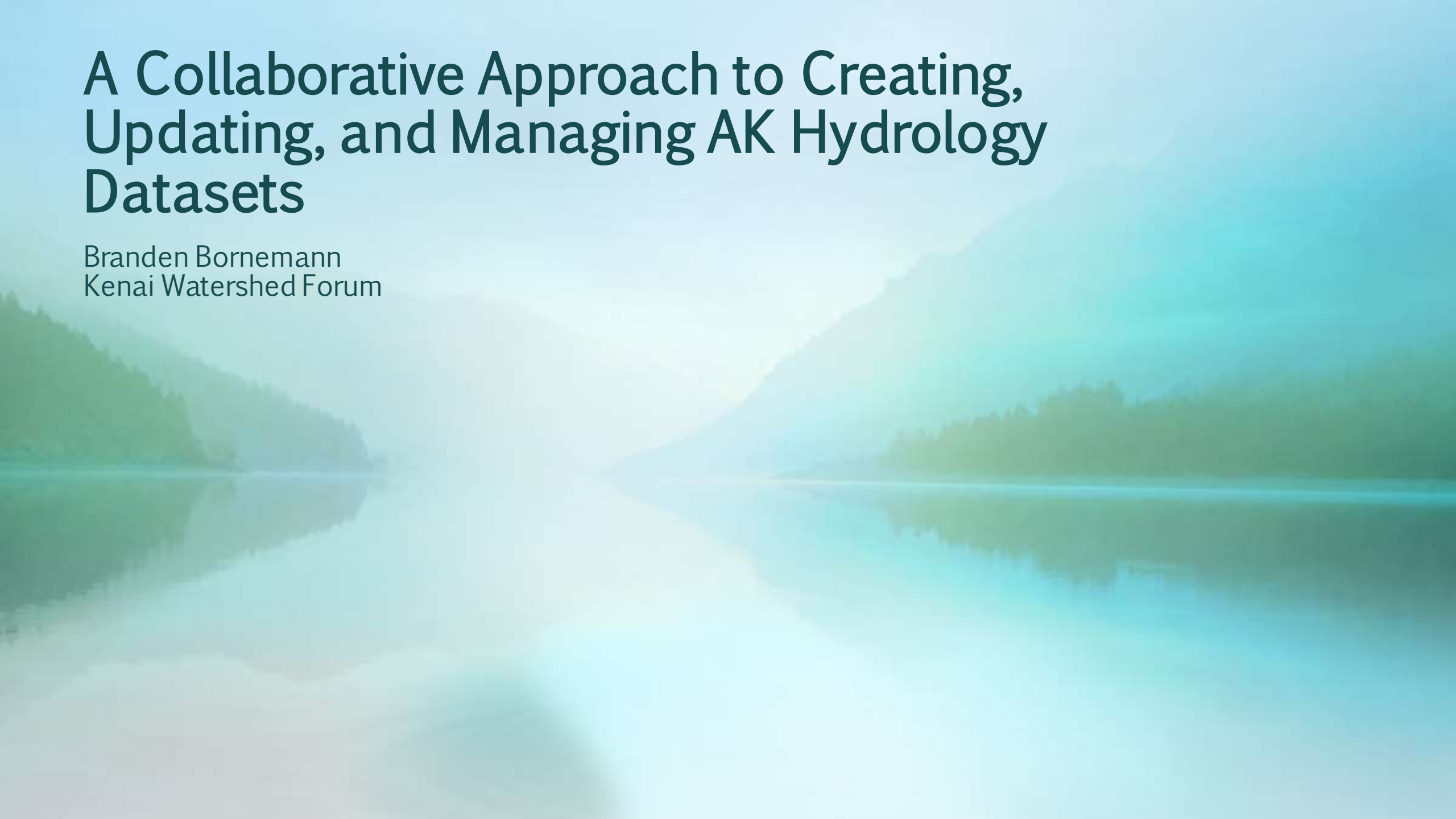


A Collaborative Approach to Creating, Updating, and Managing AK Hydrology Datasets

Branden Bornemann
Kenai Watershed Forum



Southcentral Alaska Hydrology

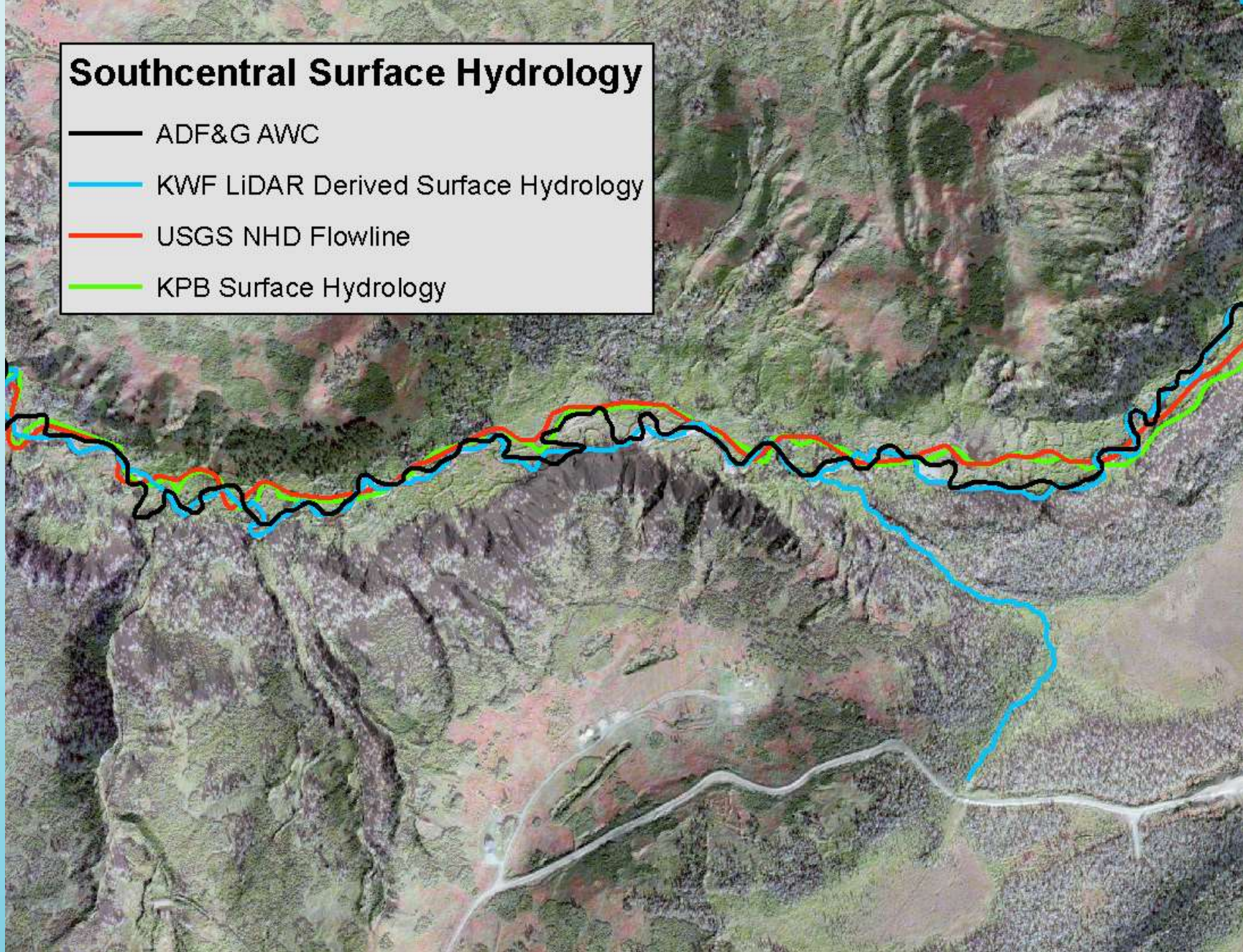
- Background and Need
- USGS National Hydrography Dataset (NHD)
 - Statewide
 - Southcentral
- SEAK Hydro → SCAK Hydro → AK Hydro
- Moving Forward

Background and Need

- Fragmented data
 - Federal
 - State
 - Local
- Inaccuracy and expense
 - Course resolution and spatially inaccurate
 - Complex tools, expensive
- Lack of local and statewide coordination
 - Divergence of datasets
 - Loss of potential in funding
- DEM acquisition

Southcentral Surface Hydrology

- ADF&G AWC
- KWF LiDAR Derived Surface Hydrology
- USGS NHD Flowline
- KPB Surface Hydrology



NHD Stewardship in Alaska

- Nationally recognized
- Provides a critical framework
- Provides a critical link



WhyNHD?

- Enhances partnership
- Promotes scientific collaboration
- Leverages resources

NHD Applications

- EPA's WATERS
- Fish Passage
- USGS National Map
- US Topo
- USFS NRIS

NHD Stewardship in Southcentral

- SEAK Hydro

- Regional data partnership implemented in 2010
- Addressing factors that have prevented the adoption of NHD
- Provides critical local attributes
- Continuing engagement

- SCAK Hydro

- Implemented in 2012
- Addressing specific regional business requirements
- Burgeoning collaboration and stewardship
- Enhancing public access

A Collaborative Approach

Database Replication to Partners



Coordinated Multi-User Editing

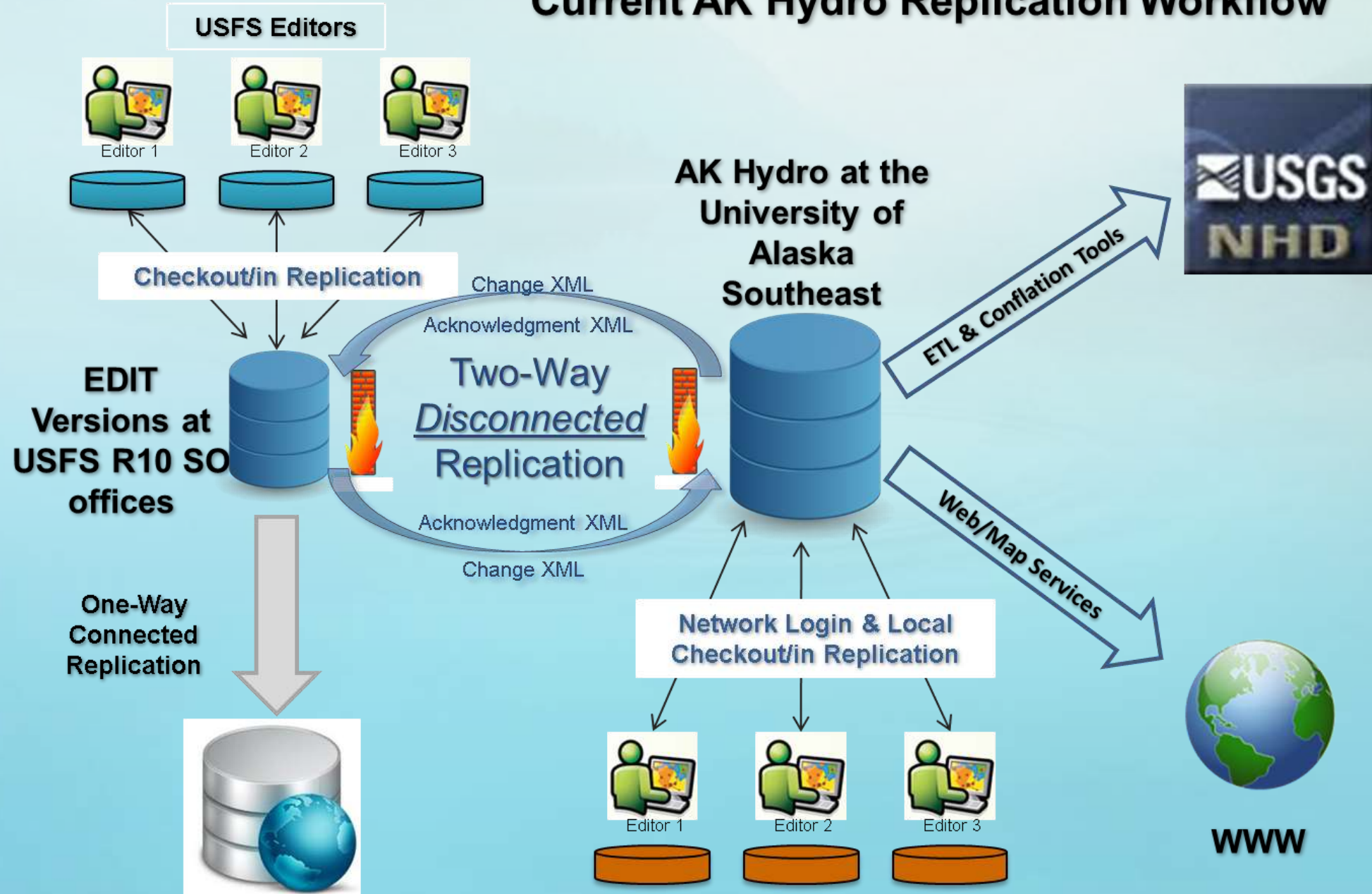


Database Synchronization to UA

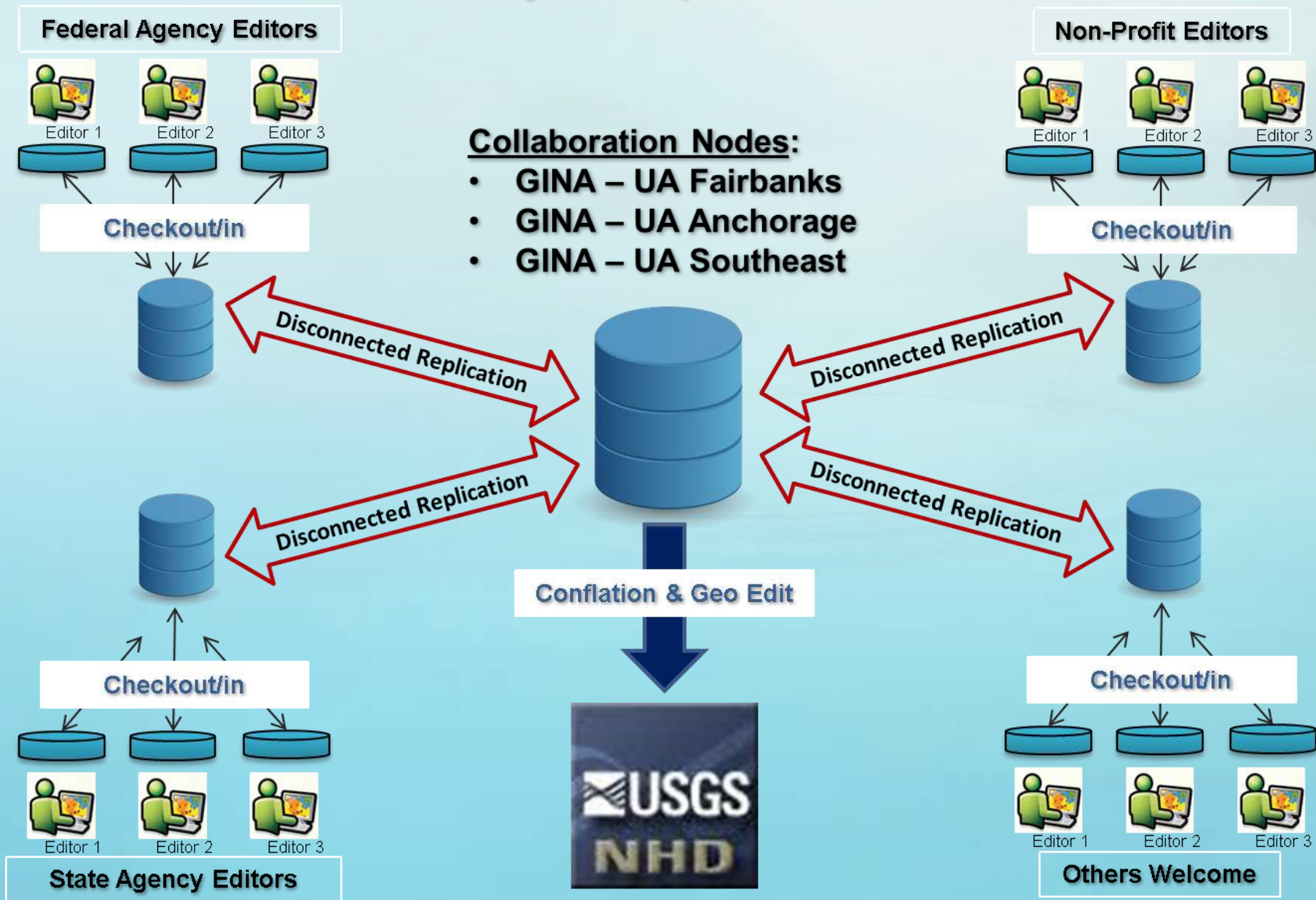


Transform Updates to the NHD

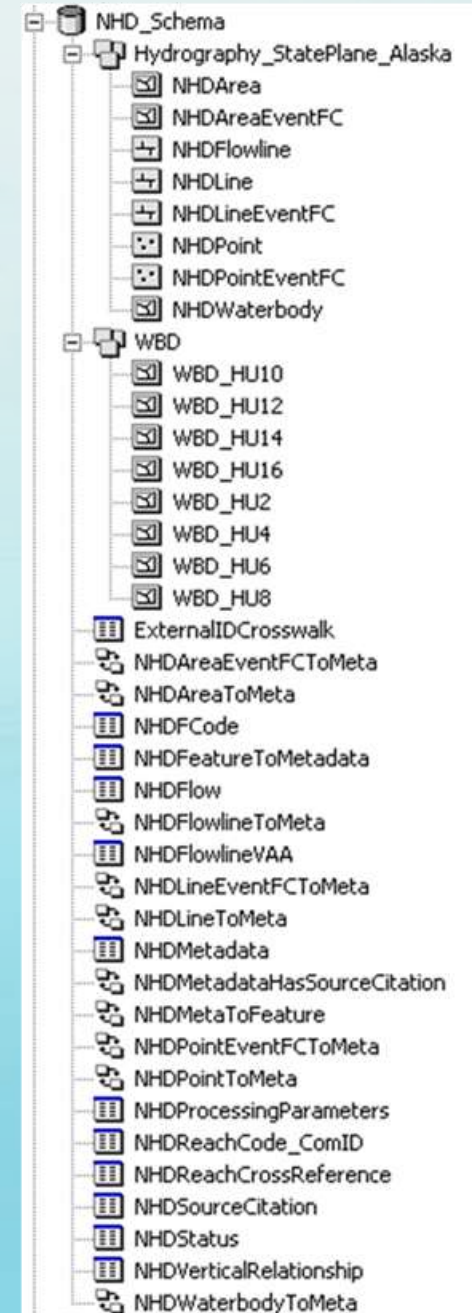
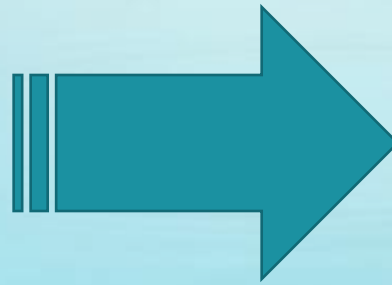
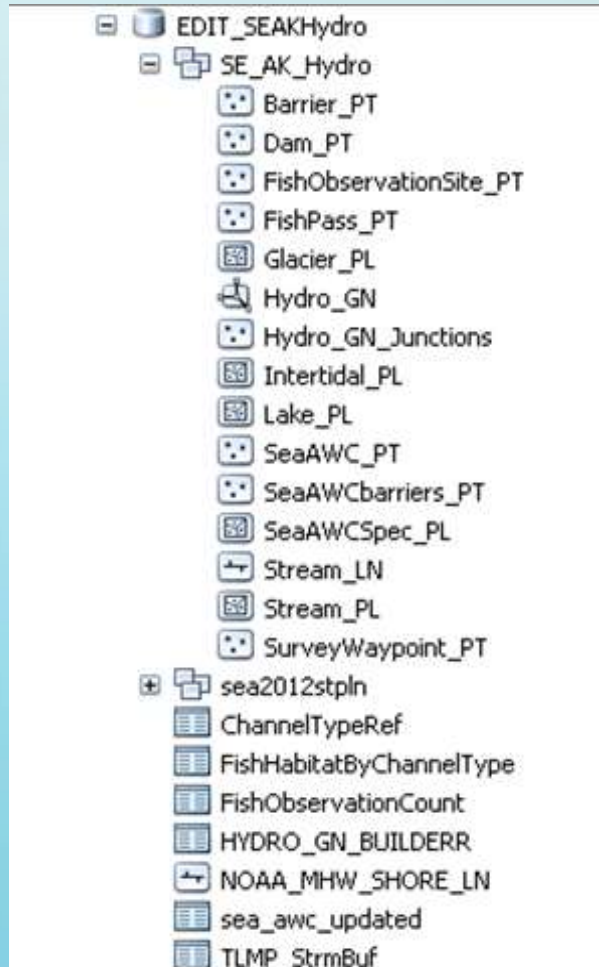
Current AK Hydro Replication Workflow



Future AK Hydro Replication Workflow

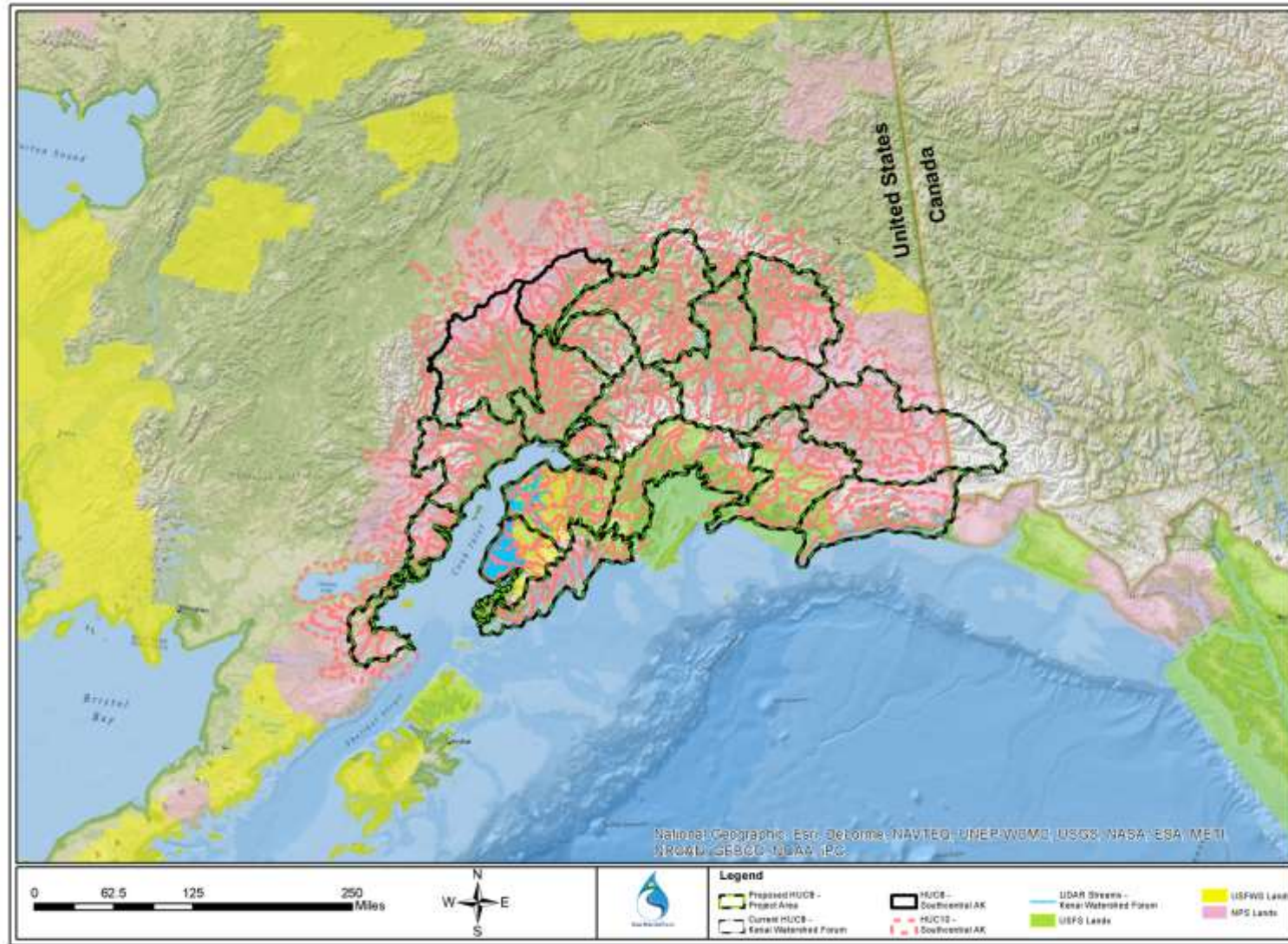


Moving Data into the NHD



Moving Forward

- Partnerships, continuing collaboration for Southcentral and all of Alaska
 - Alaska Hydrography Technical Working Group
- Western Alaska LCC Grant - \$300,000
 - Bringing Alaska's Freshwater Hydrography into the 21st Century
- AK Hydro
 - Southcentral AK funding through December 2014





Thank You

A scenic landscape photograph of a calm lake reflecting the surrounding forested mountains under a hazy sky. The water is still, creating a clear mirror image of the mountains and trees. The overall tone is soft and natural.

References:

1. Mike Plivelich – AK Hydro NHD Technical Steward,
University of Alaska Southeast
2. Rebecca Anderson - USGS Geospatial Liaison, Alaska Region