

Abandoned Roads

May 2026 Regional Forest Practices Committee

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Definition

“Abandoned roads”:

roads that were constructed prior to 1972 and do not meet the criteria of active, inactive, or vacated roads. This does not include skid trails.



Definition

Term	Definition
Active road	used or maintained for the purpose of removing commercial forest products
Inactive road	used for forest management purposes exclusive of removing commercial forest products
Vacated road	roads that have been made impassable and are no longer to be used for forest management purposes or commercial forest harvesting activities
Abandoned road	roads that were constructed prior to 1972 and do not meet the criteria of active, inactive, or vacated roads. This does not include skid trails





Why are we doing this?

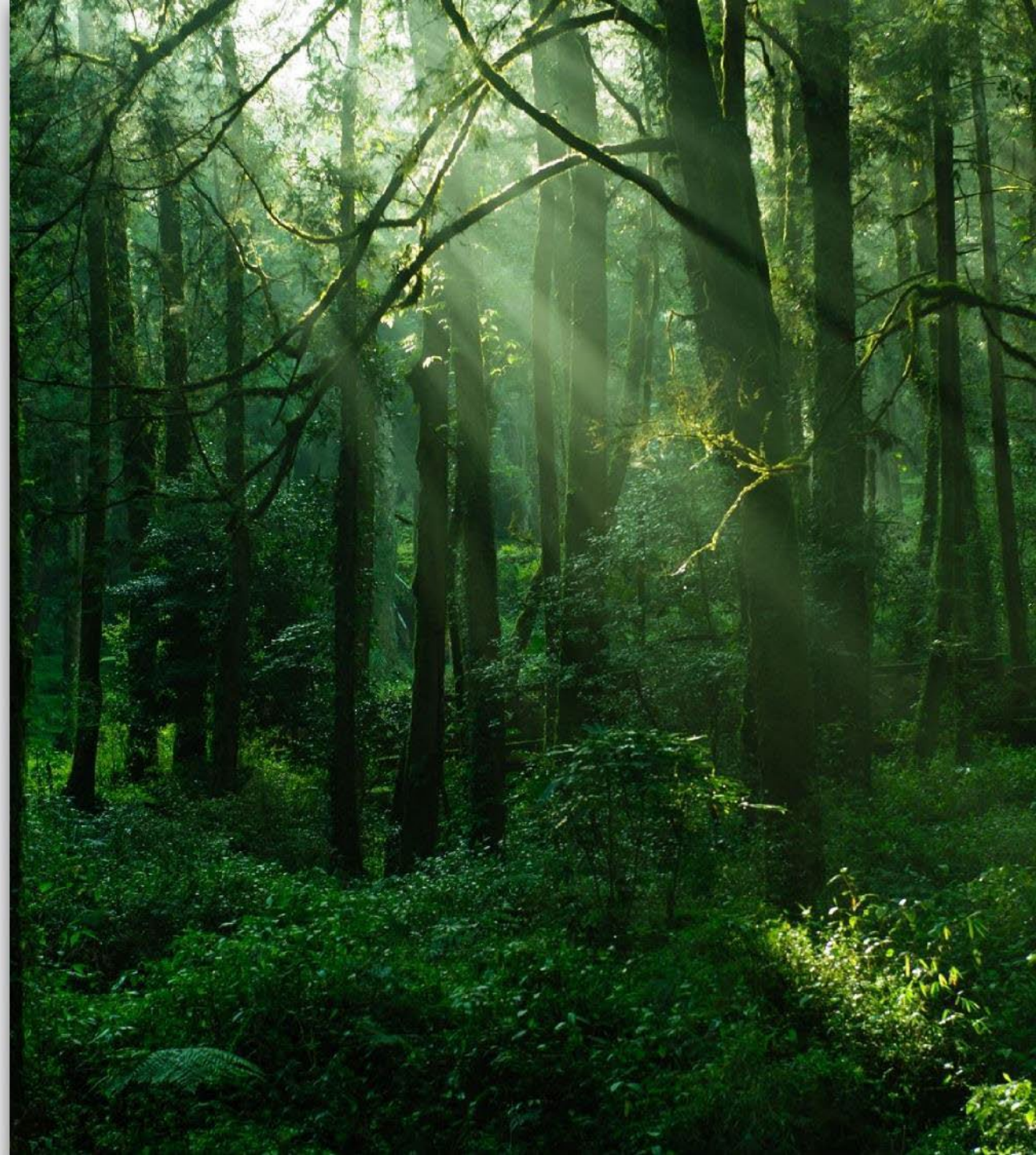
HCP Goals & Objectives

- Increase distribution of fish
- Prevent or minimize delivery of sediment
- Remove anthropogenic barriers to fish passage
- Hydrologic disconnection
- Minimize or avoid sediment delivery
- Assessment of and select treatment of abandoned roads.



ODF Work Group

- 6 members from ODF Forest Resources Division
 - Roads
 - Geology
 - Monitoring
 - GIS

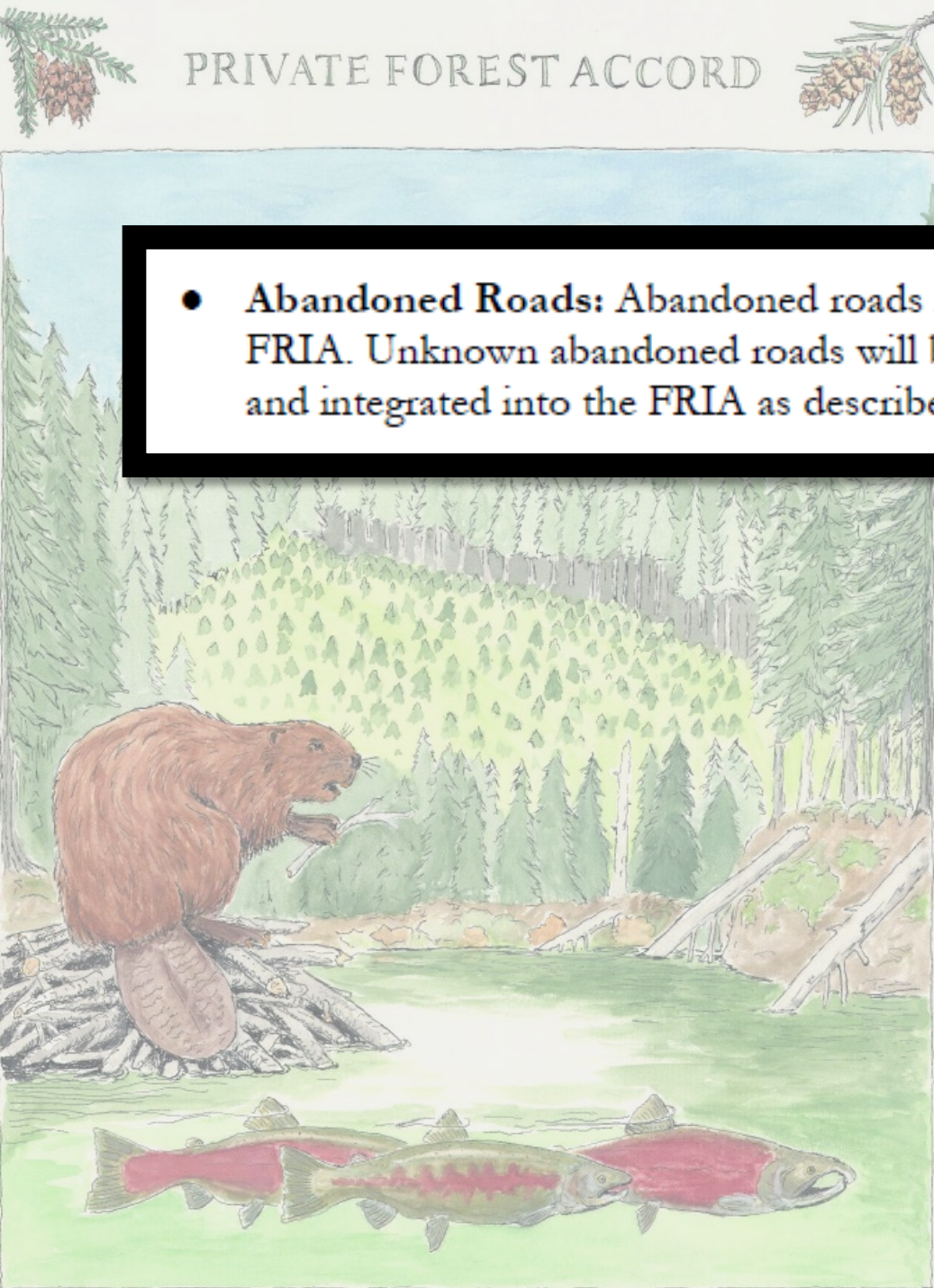


PFA Intent



- **Abandoned Roads:** Abandoned roads known by the landowner should be disclosed in the FRIA. Unknown abandoned roads will be addressed through the State's inventory process and integrated into the FRIA as described in that process.

- Directs ODF to lead the effort
 - ODF GIS – 22,000 sq miles, 110,000 field days
 - EPA & DEQ – advised to develop less intensive methods
- Aligns abandoned roads with FRIA timeline
 - Just for large landowners





ODF Responsibility

- Use remote sensing to identify abandoned roads on private forests in Oregon
- Assign risk level to the potential abandoned road location
- Coordinate and collaborate with landowners on field verification





Landowner Responsibility

- Disclose known abandoned roads and known vacated roads in FRIA initial inventory (2029)
- Conduct field verification
- Consult and coordinate with ODF
- When criteria are met, propose most practicable option to address risk



High Risk

- Locate high risk locations

OAR 629-625-0910 (2)

- a) Ongoing stream diversions at stream crossings
- b) Diversion potential at stream crossings
- c) Likelihood of hydrologic connectivity
- d) Comparative risk of chronic sediment produced
- e) Risk of contribution to mass wasting
- f) Other criteria in consultation with other agencies





High Priority

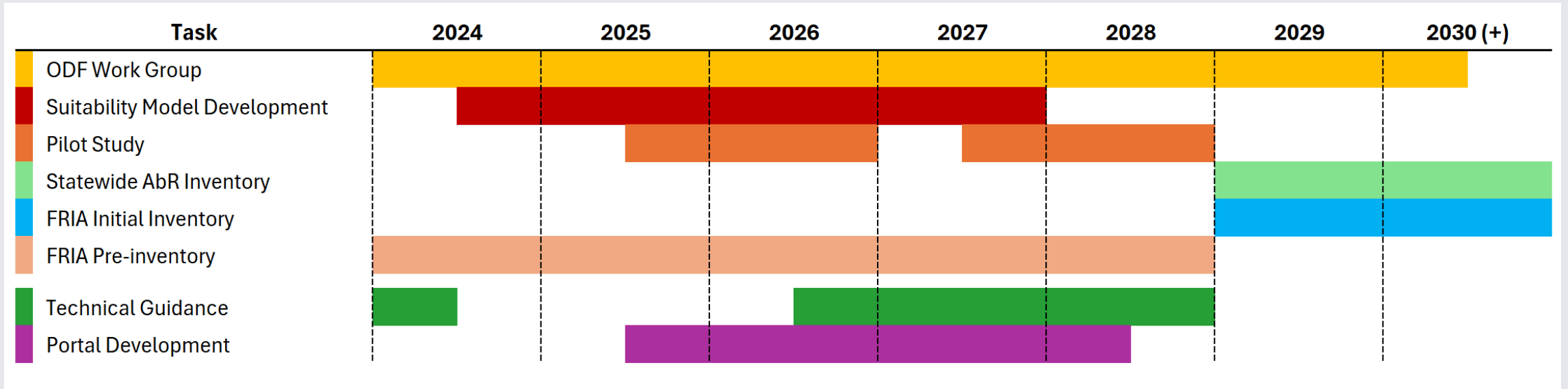
- Prioritize assessments of abandoned roads.
- Treatment options would be based on risk to aquatic systems and cost to remedy.

OAR 629-625-0910 (3)

- a) Importance of HUC6 to recovering salmonids
- b) Number of stream crossings
- c) Cost of improvements
- d) Other criteria in consultation with agencies



Projected Timeline



FRIA

Pre-inventory 2024-2029

Annual reports on status and completion of pre-inventory projects

Initial inventory 2029-2044

Annual FRIA reports and plans





Reporting Portal

- 2025-2029 – Smartsheet form
 - Currently in use for FRIA Pre-inventory
 - No abandoned roads involvement
- 2029-2044 – FERNS-style website
 - In development
 - Will be used for FRIA Initial Inventory and Abandoned Roads
 - Designing system that allows for easy two-way data sharing
- Abandoned roads reporting tied to FRIA annual reporting



Pilot Project

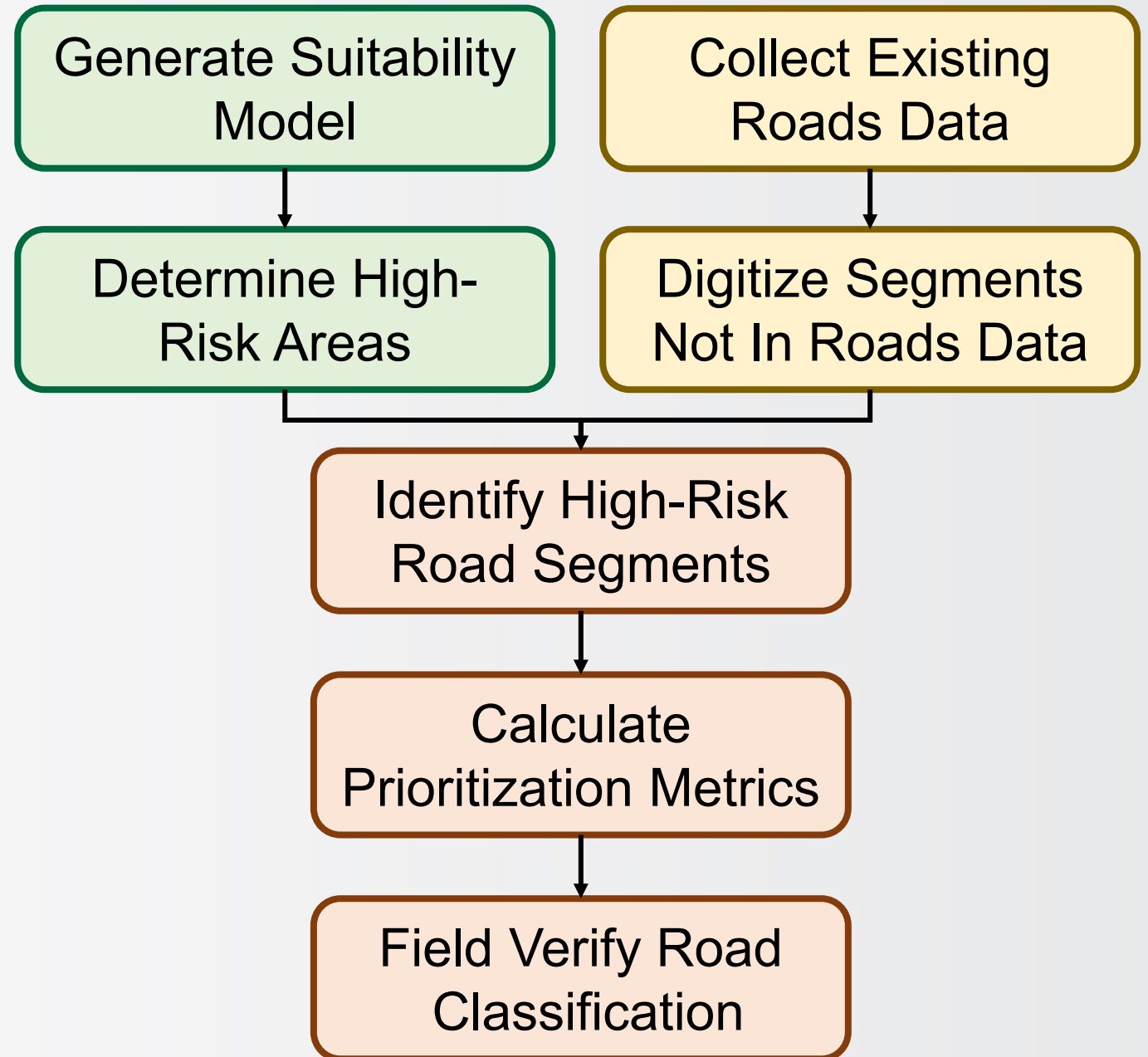
- Conducted in parts the Siuslaw National Forest
 - 256,095-acre search area
- Goals:
 - Test remote sensing methods
 - Analyze Suitability Model behavior and accuracy
 - Find real life examples of abandoned roads





Pilot Process

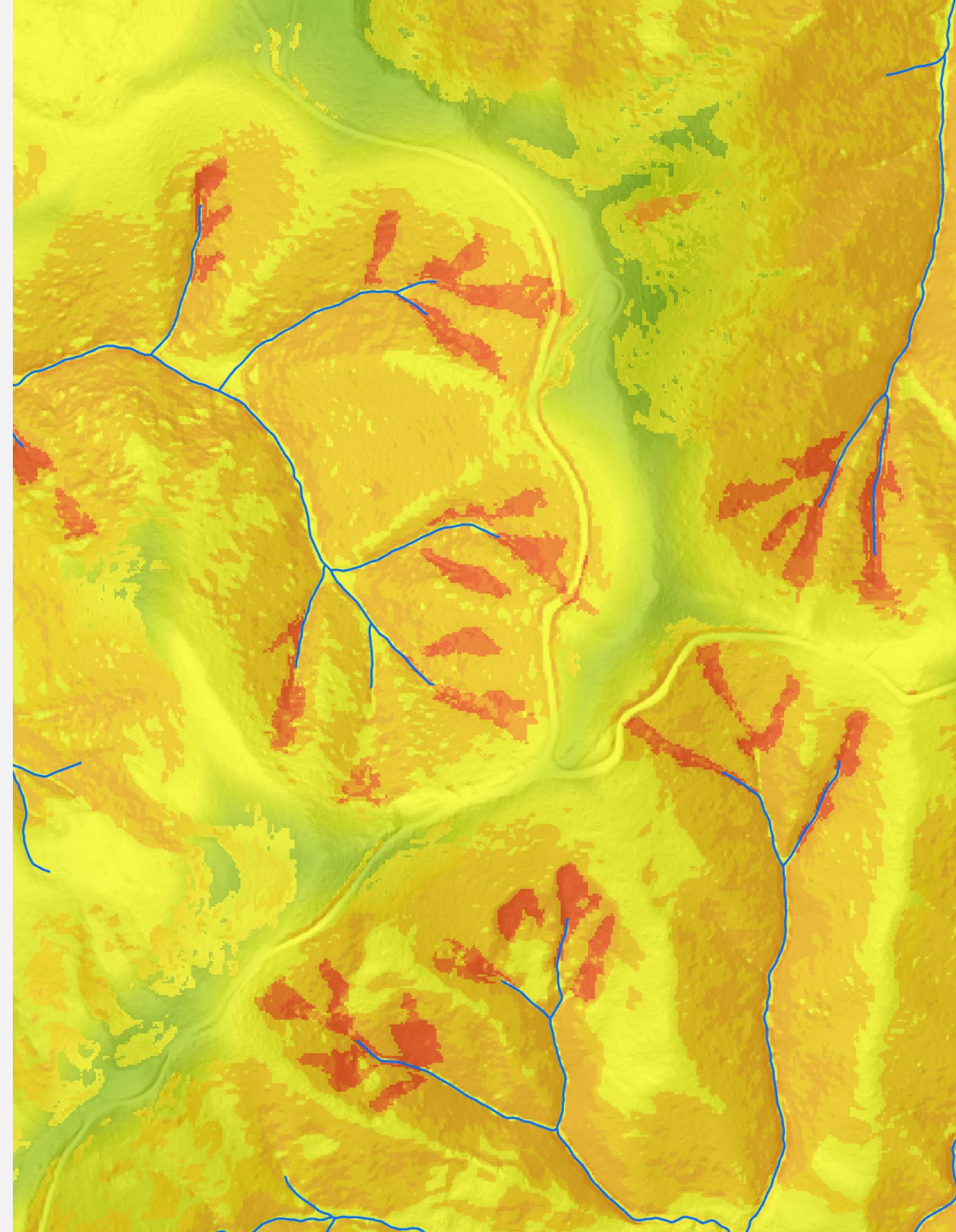
- Similar to process that will be used for the real inventory
- East side differences
- ODF roads data used as base “known roads” data
 - Stand-in for FRIA Initial Inventory data





Suitability Model

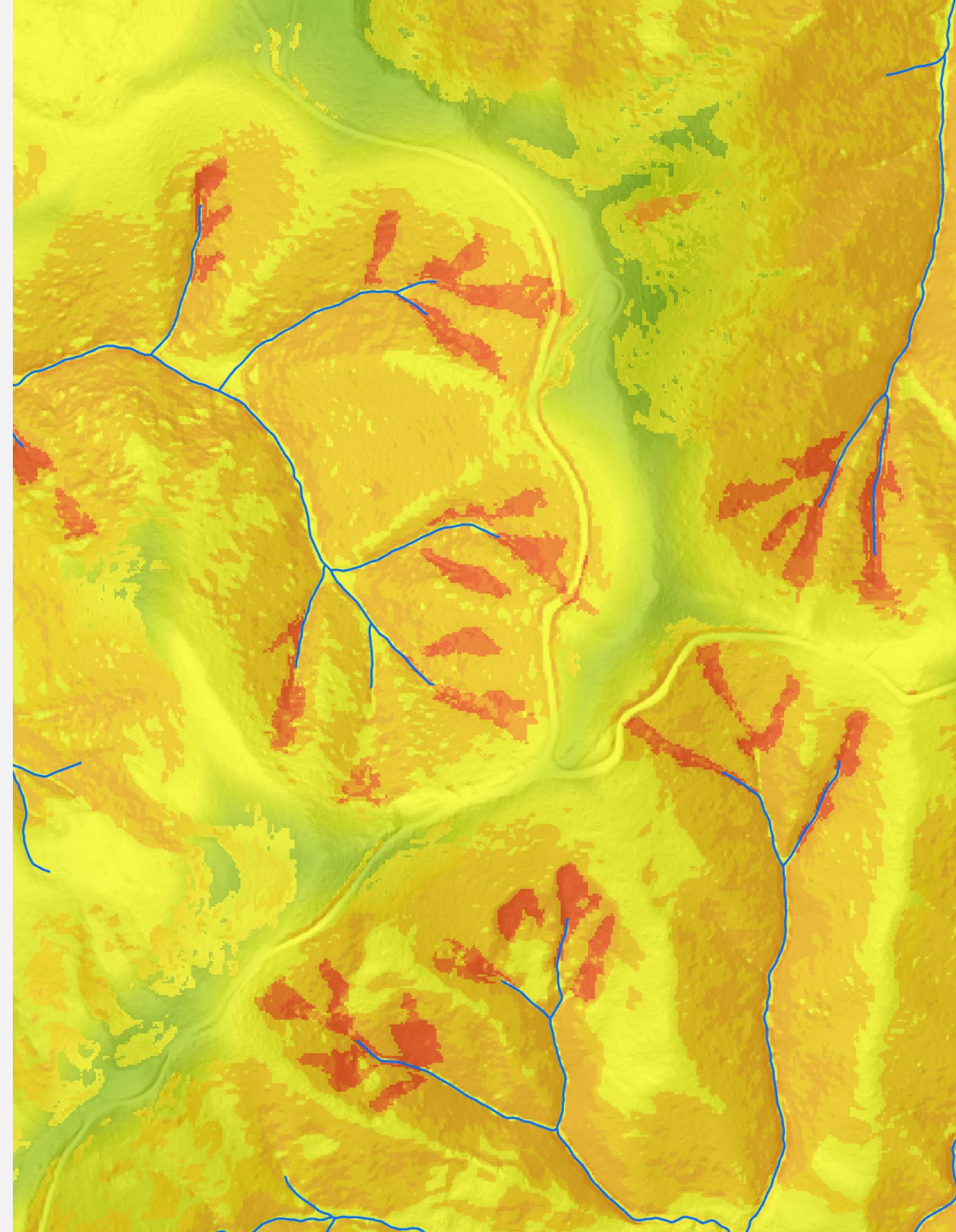
- Identifying High Risk Locations
- Input Datasets:
 - Distance from ODF Flow Lines, Waterbodies, and Wetlands
 - Designated Sediment Source Areas (DSSA)
 - High Landslide Hazard Locations (HLHL)
 - Designated Debris Flow Traversal Areas (DDFTA)
 - Decomposed Granite Type Soils
 - Distance from Paved Roads, Railroads, Buildings





East Side Suitability Model

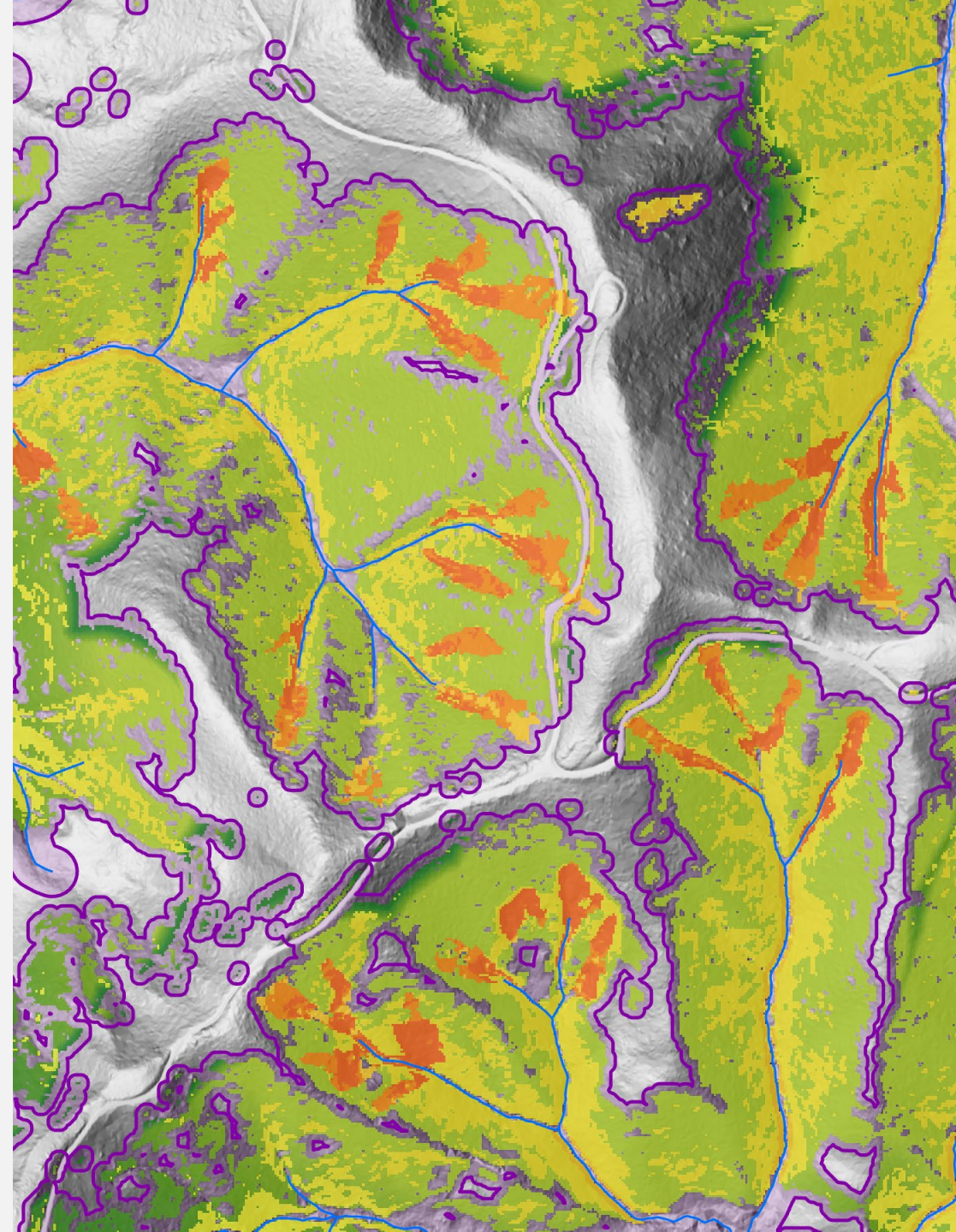
- Input Datasets:
 - Distance from ODF Flow Lines, Waterbodies, and Wetlands
 - eHLHL
 - Same as HLHL; used to classify slope
 - New, non-regulatory layer
 - Decomposed Granite Type Soils
 - Distance from Paved Roads, Railroads, Buildings





High-Risk Suitability Model

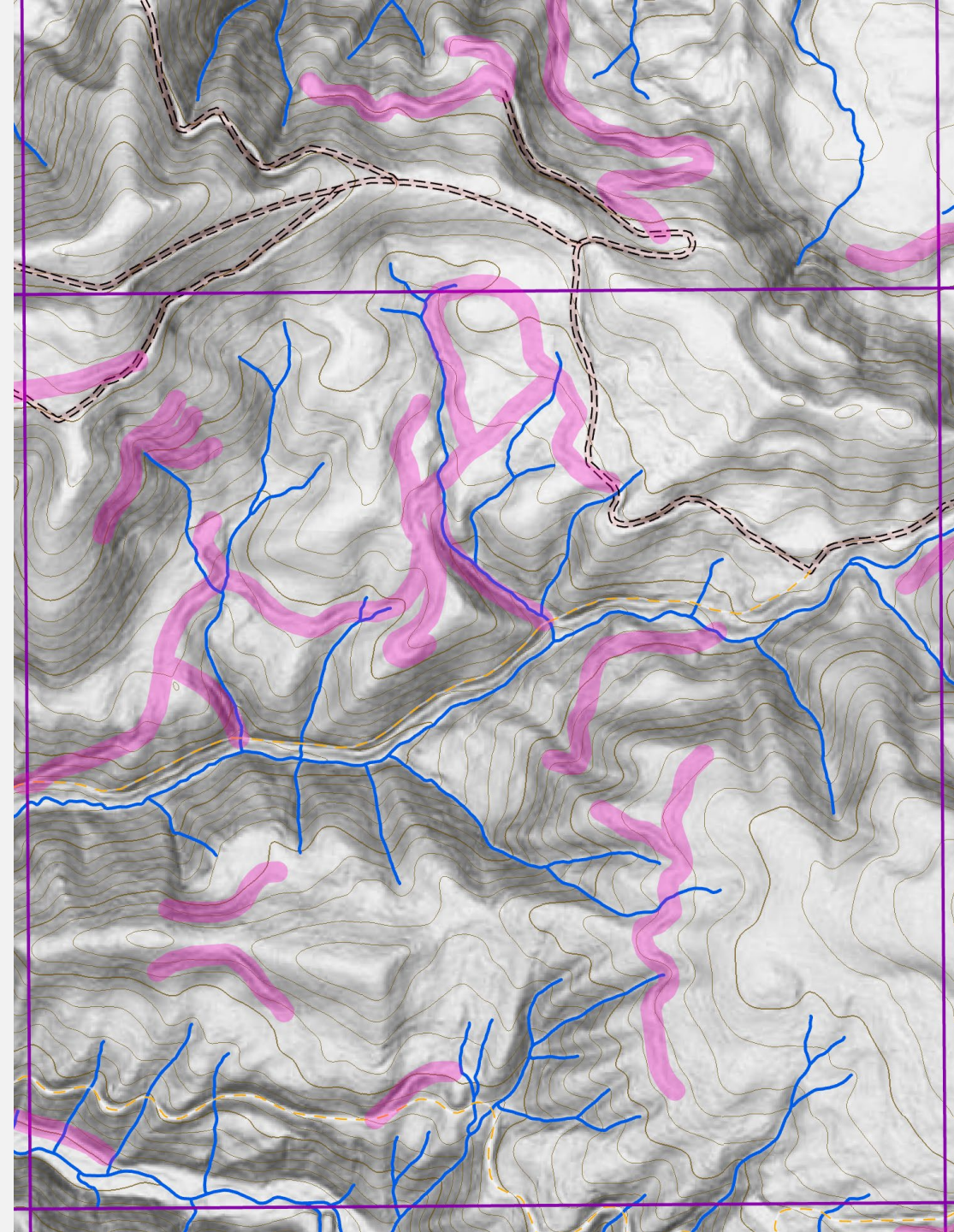
- Suitability Model values ranged from 0 to 14
 - High values represent higher-risk areas
- Values greater than 7 considered “high-risk”
 - Buffered raster to remove gaps and incorporate stream proximity
- Model performed well during field assessments
 - Several potential improvements possible





Identifying Abandoned Roads

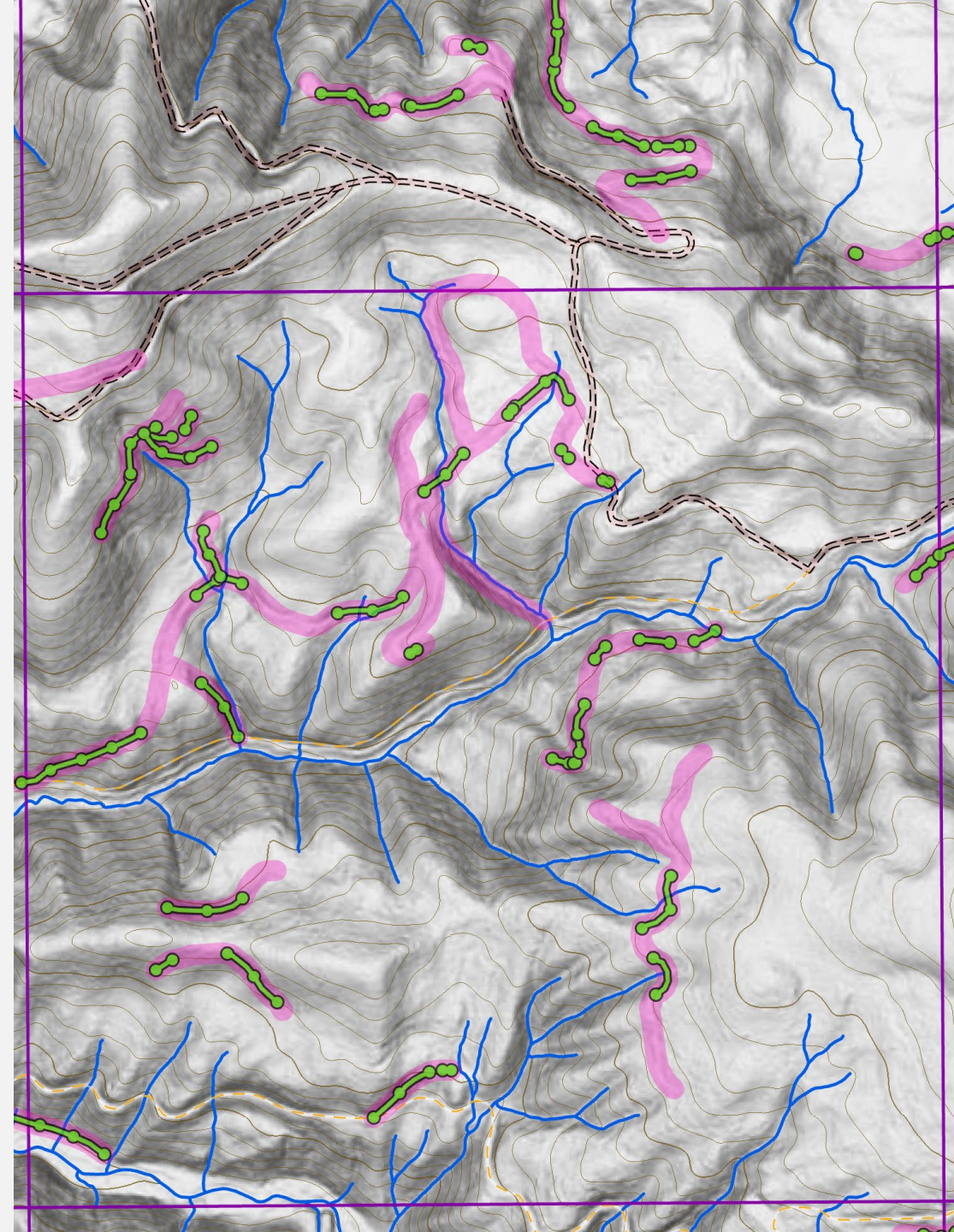
- Used manual digitizing process to identify roads from lidar
 - Overlayed square-mile grids on pilot area lidar
 - Digitized all road features not present in ODF roads data within each grid cell
 - Attempted to classify digitized features
- Roads were easy to find in lidar
- Confident classification is difficult





Identifying High-Risk Abandoned Roads

- Intersected digitized roads with High-Risk Suitability Model
- Calculated preliminary prioritization metrics:
 - Median suitability score along segment
 - Within 100' of streams
 - Number and type of stream crossings
 - Average and Max segment gradient
- Several options to refine this process





Pilot Results

- 172,983 acres (68%) of search area determined to be “high-risk”
- Digitized 1,393 segments, total of 343 miles not present in ODF roads data
- 162 miles (47%) of digitized roads determined to be “high-risk” by Suitability Model

- Visited 58 digitized segments
- Confirmed identification of both likely abandoned and vacated roads





Orthoimagery

- Available via USGS Earth Explorer
- High resolution historical imagery
- Imagery dating to the 1950s available in some areas
- Not geo-referenced





Field Verification

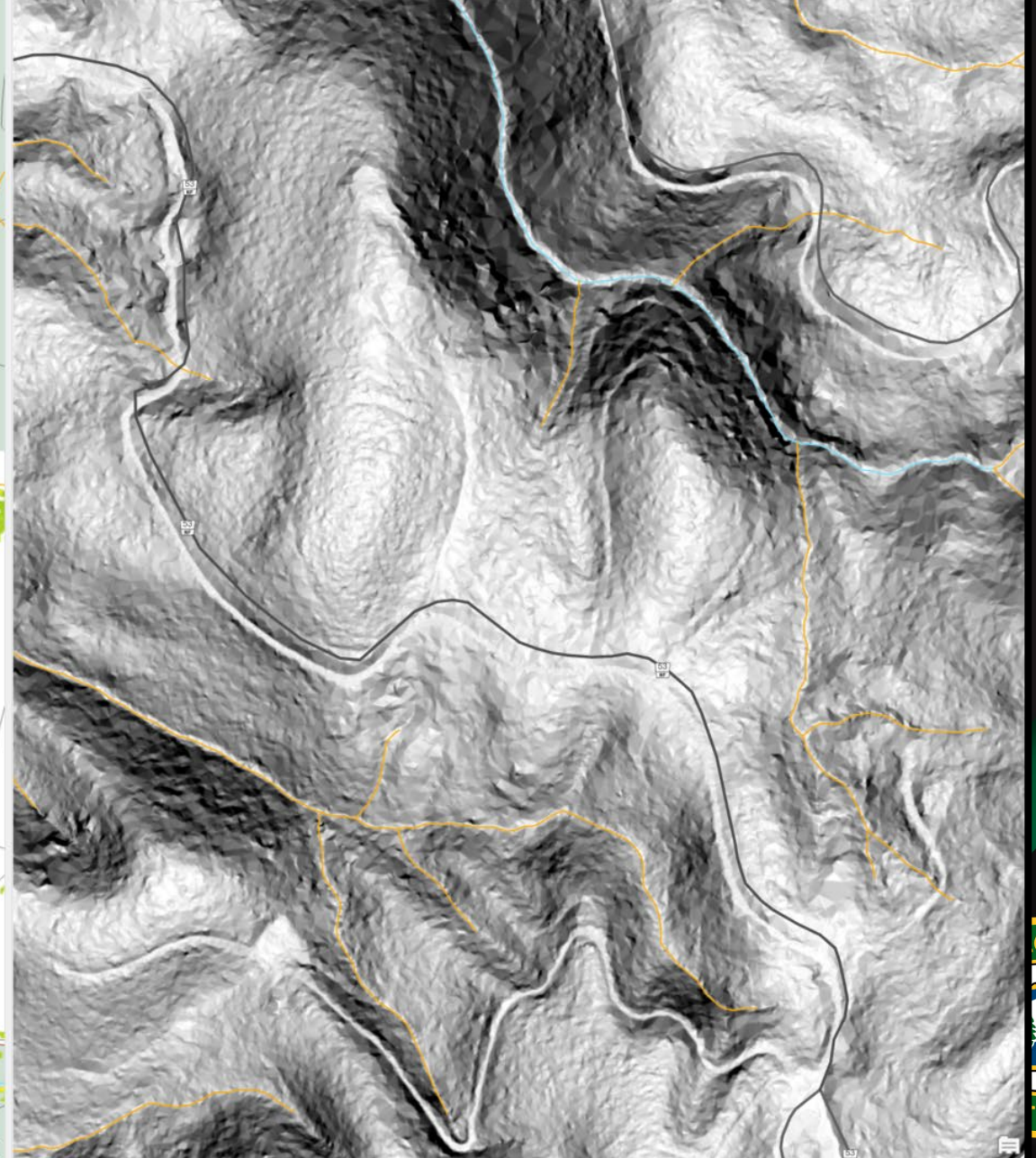
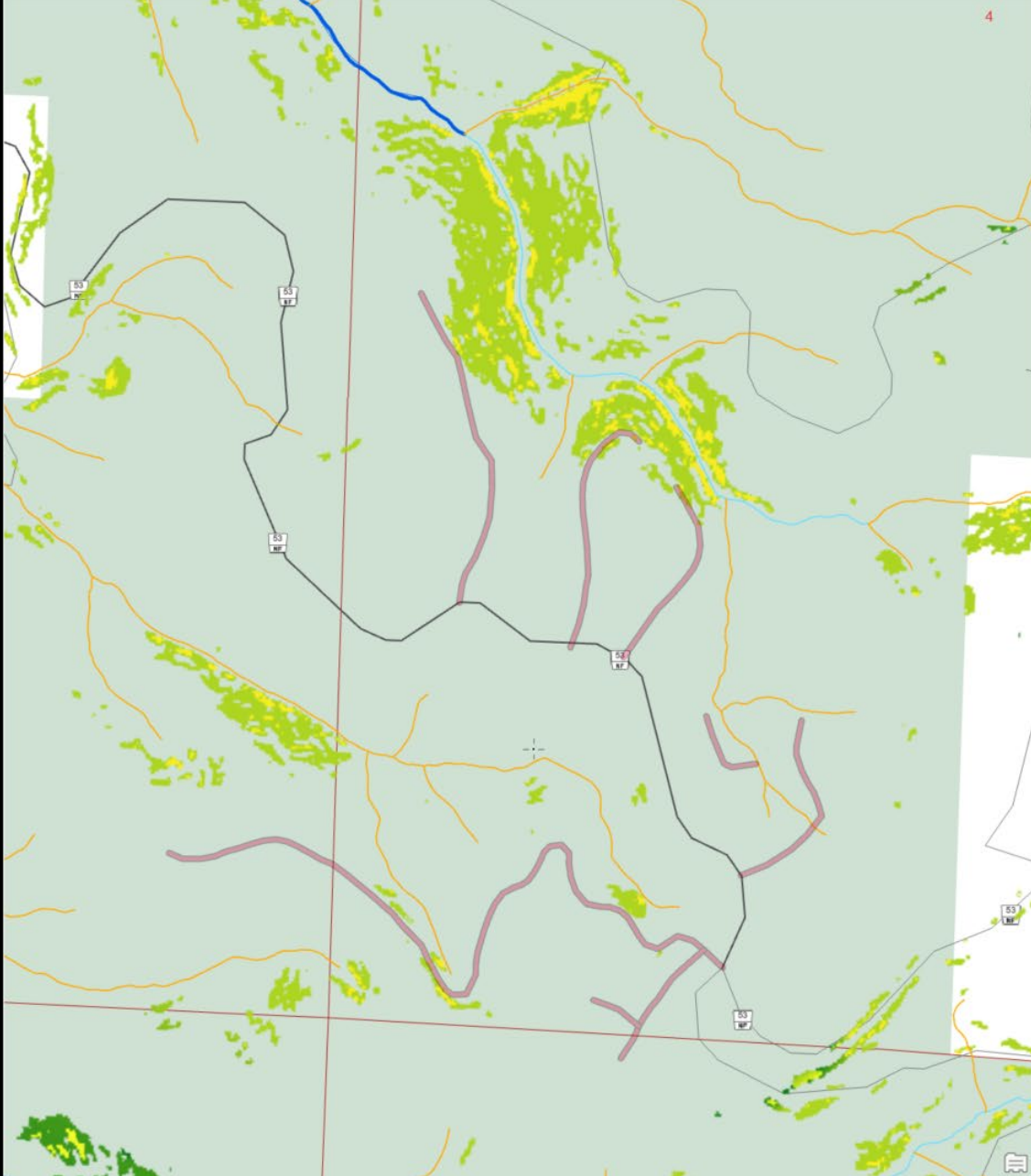
- What is it?
 - Diversion
 - Sediment
 - Net benefit analysis
 - Propose actions to address risk at the location
-
- Technical guidance with field verification form

Field Verification

- Confirmed abandoned road locations must be added to FRIA inventory
- Not all confirmed abandoned roads will need improvements
- Criteria:
 - The high-priority location is an abandoned road;
 - The high-priority location is actively contributing or has high risk of contributing significant quantities of sediment to waters of the state;
 - The improvements would be a net benefit to waters of the state; and
 - Improvements are practicable.

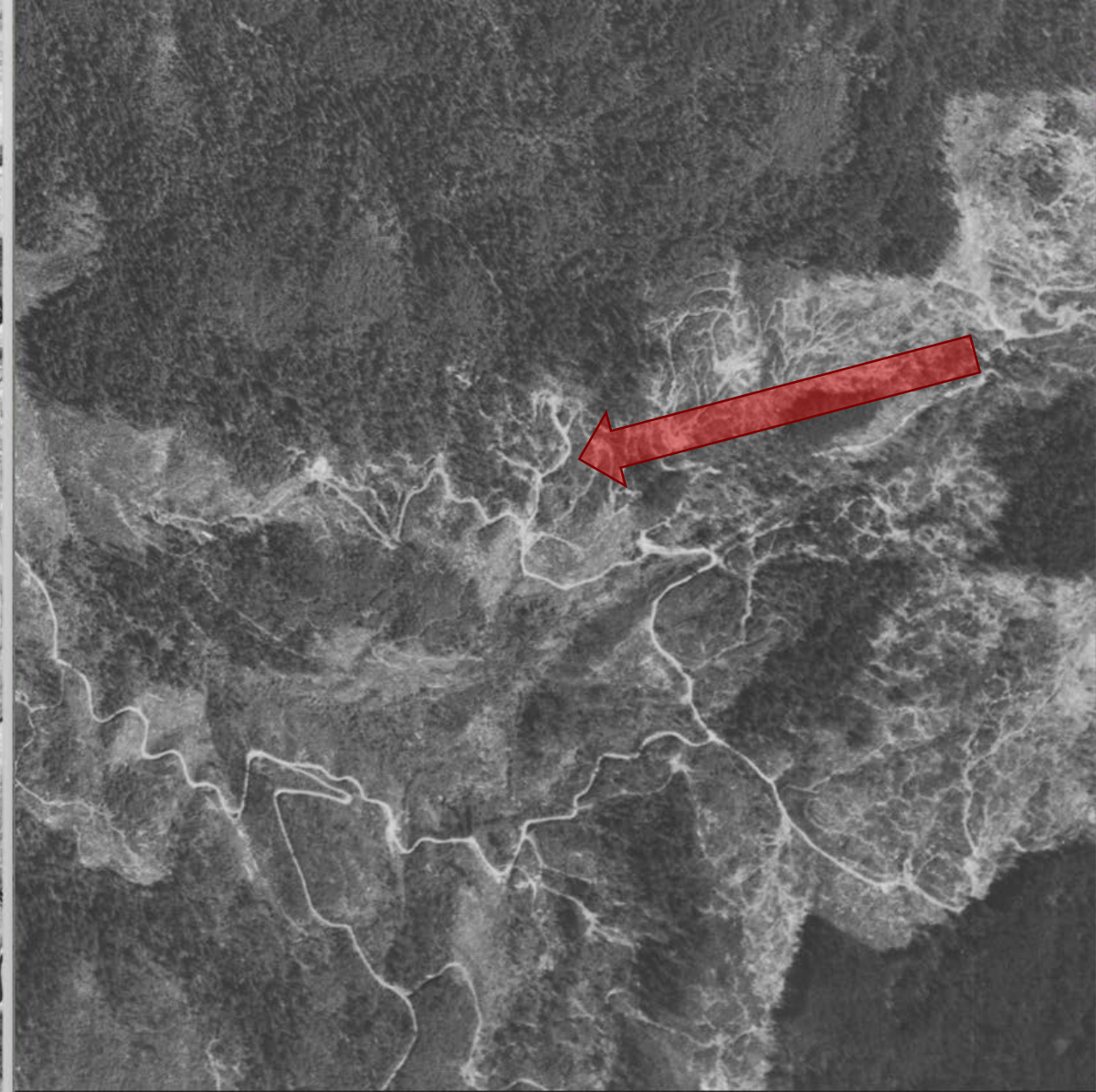


Site 1



Site 1

Orthoimagery from 1955



Site 1

Hole in roadbed



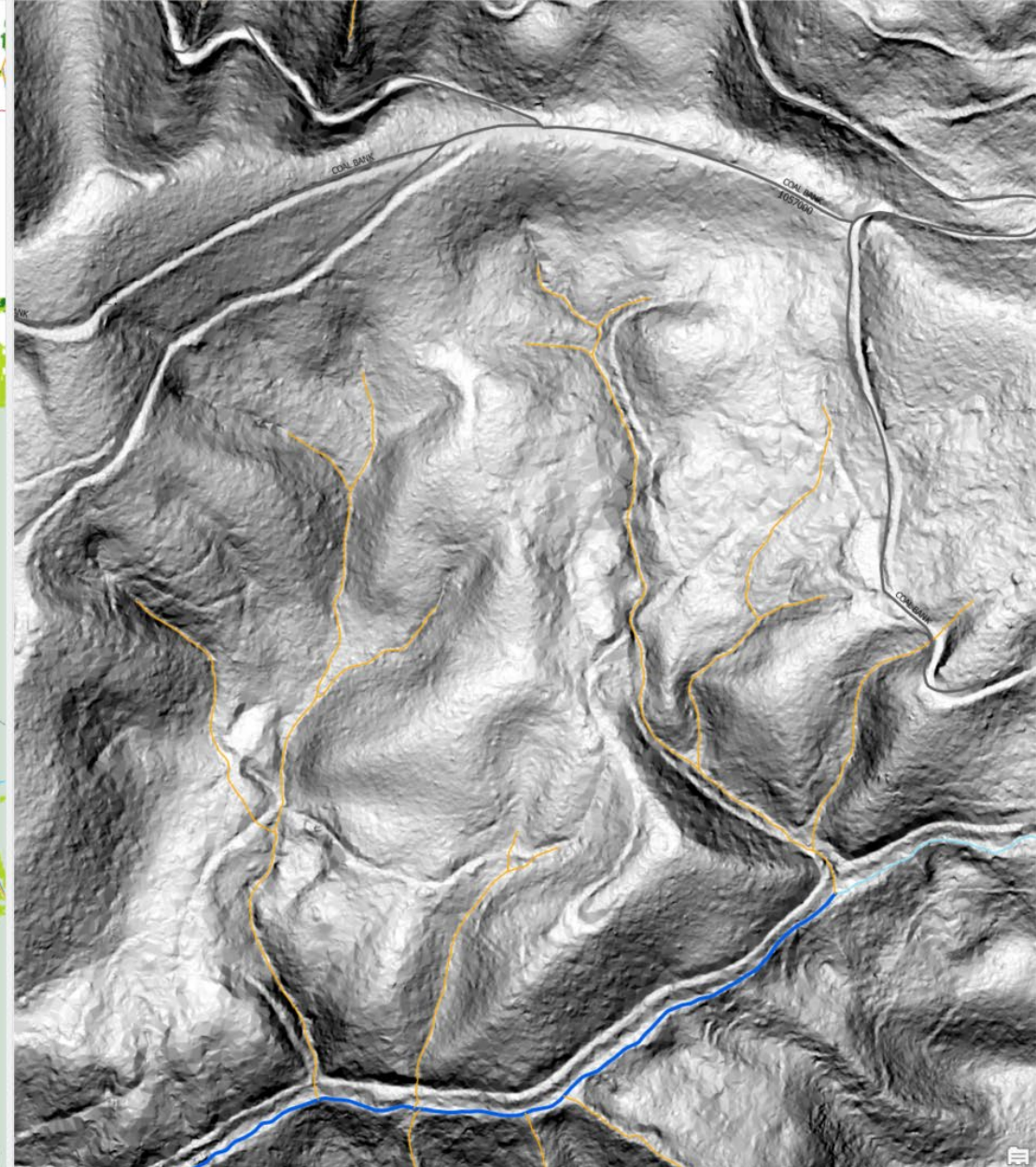
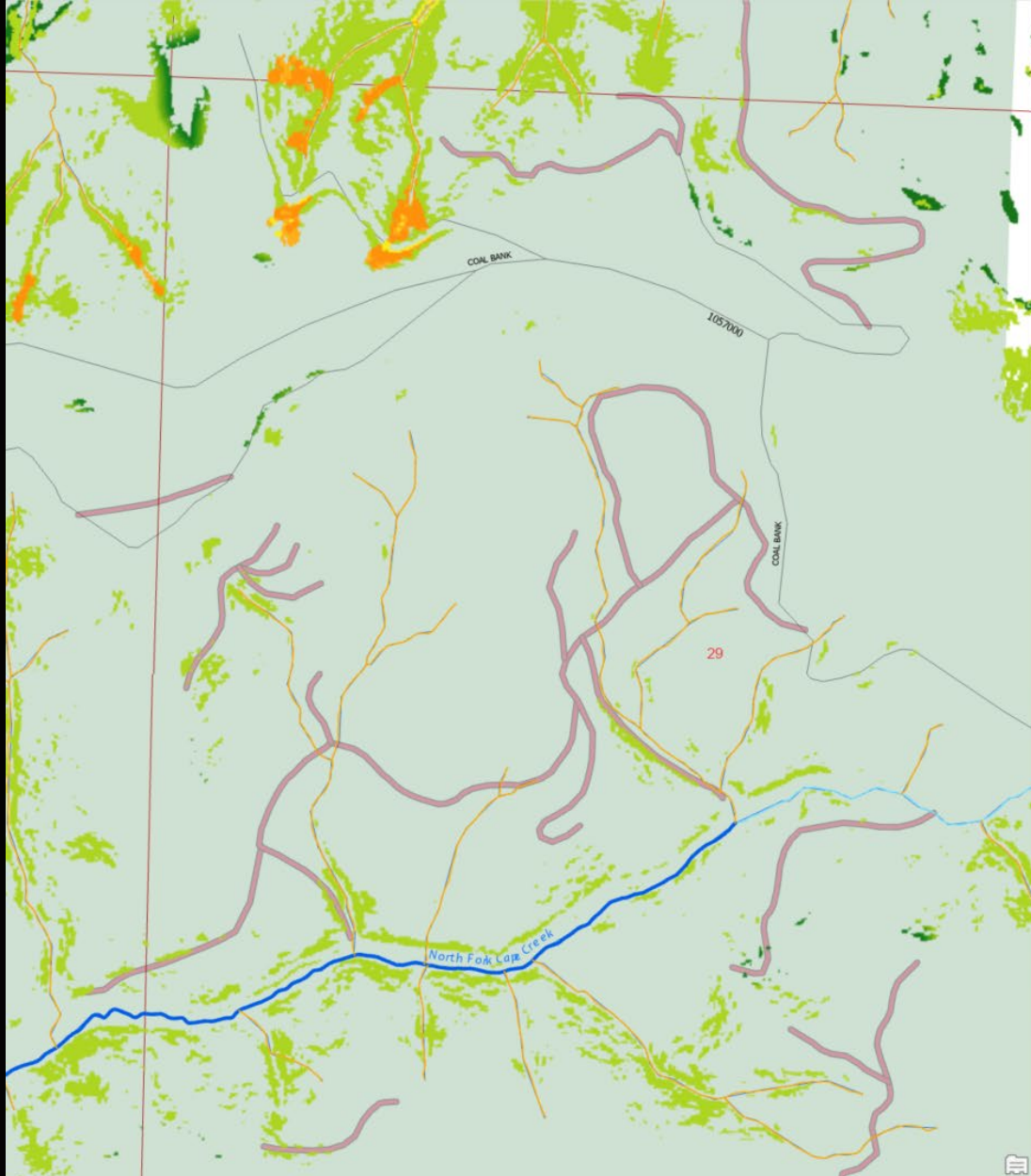
Outlet



Inlet

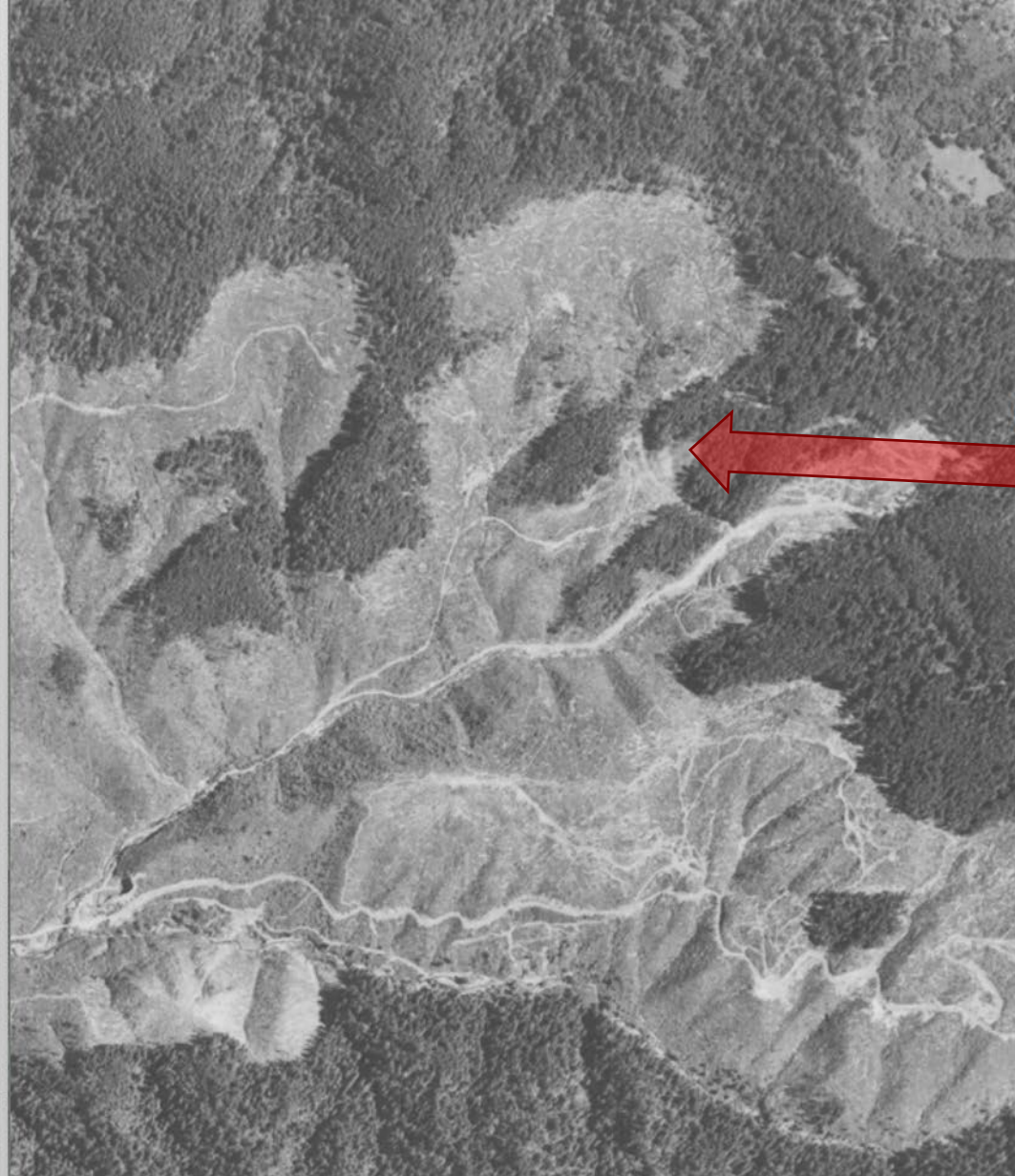
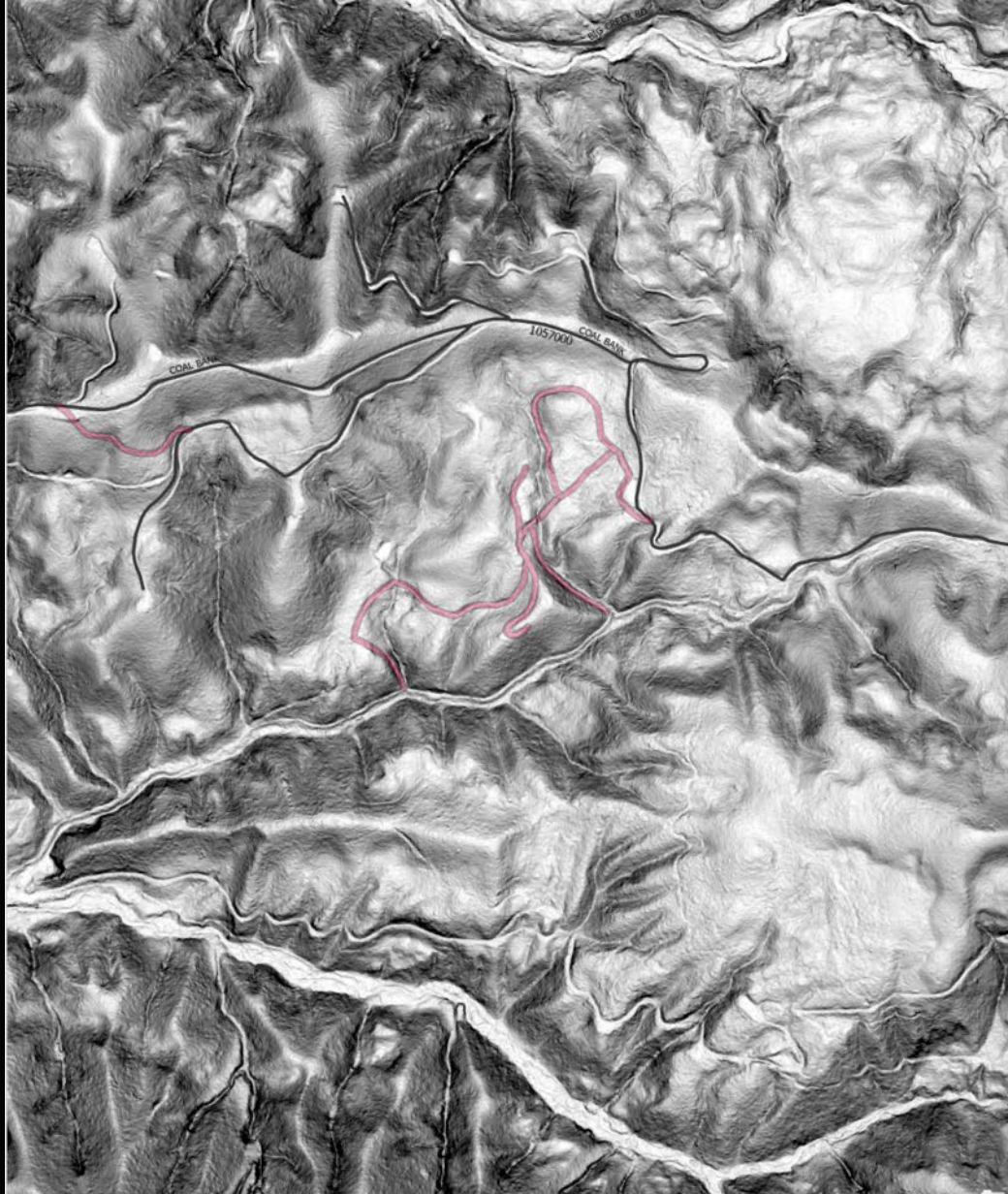


Site 2



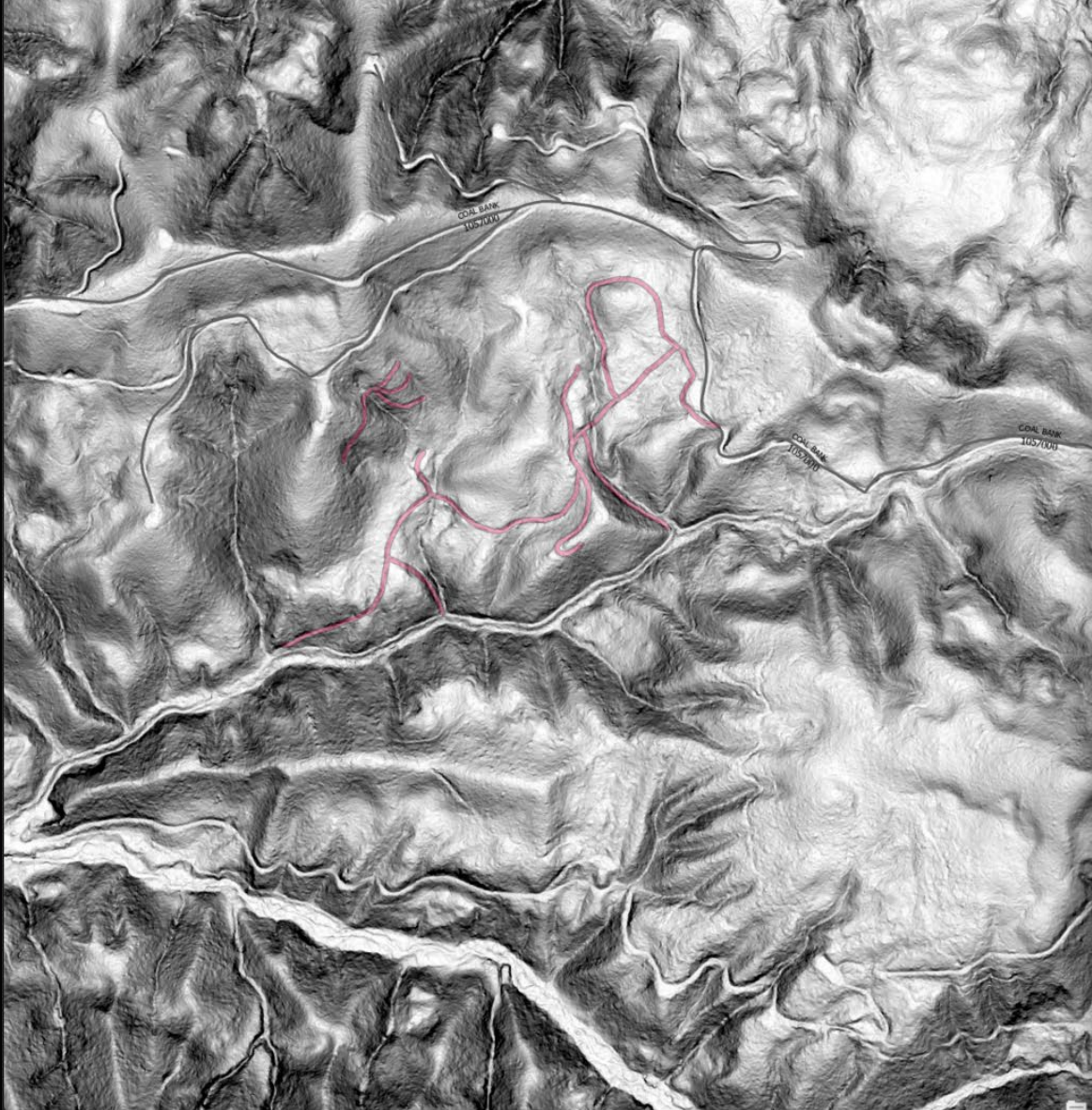
Site 2

Orthoimagery from 1954



Site 2

2000



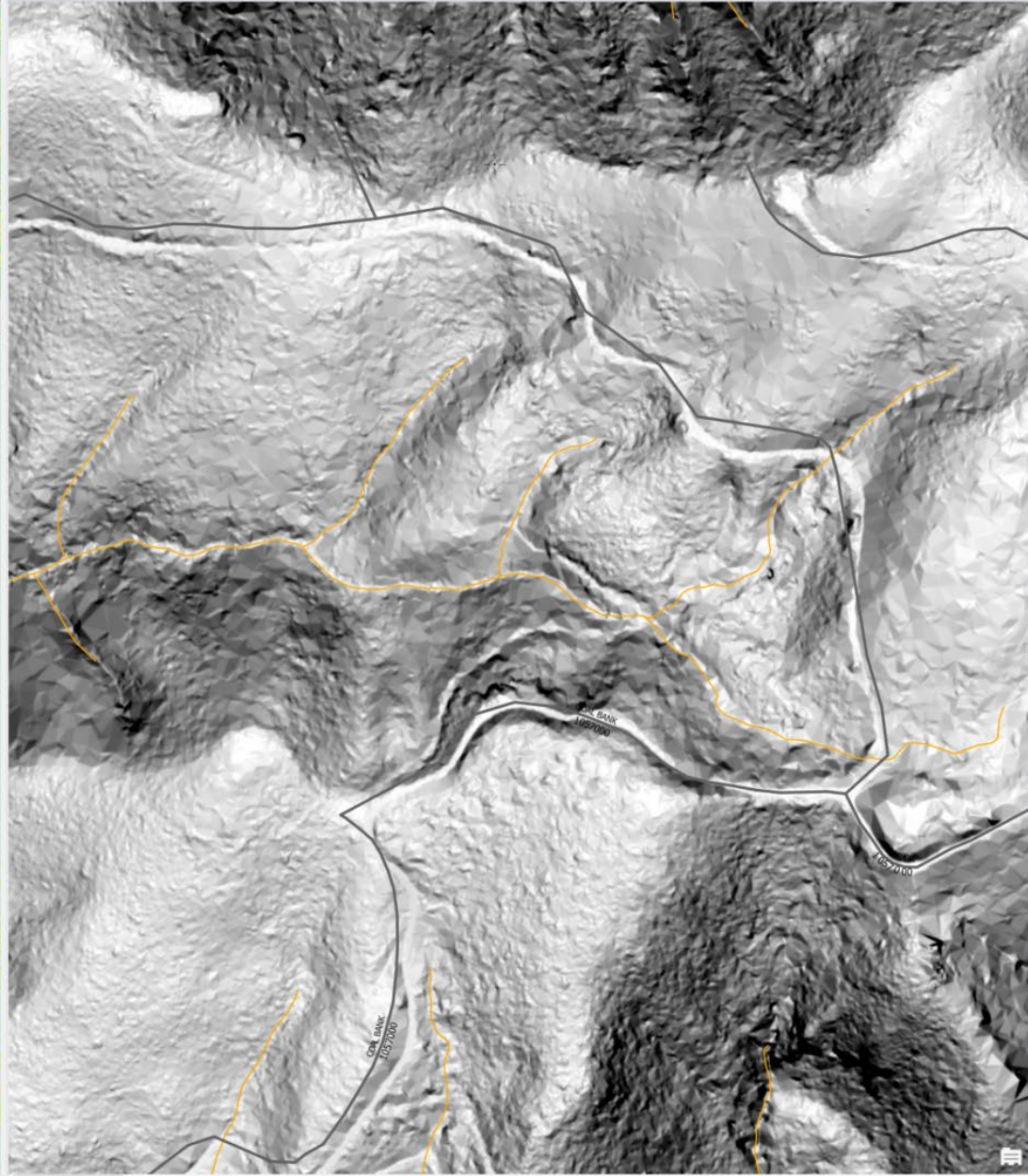
Site 2



Site 2

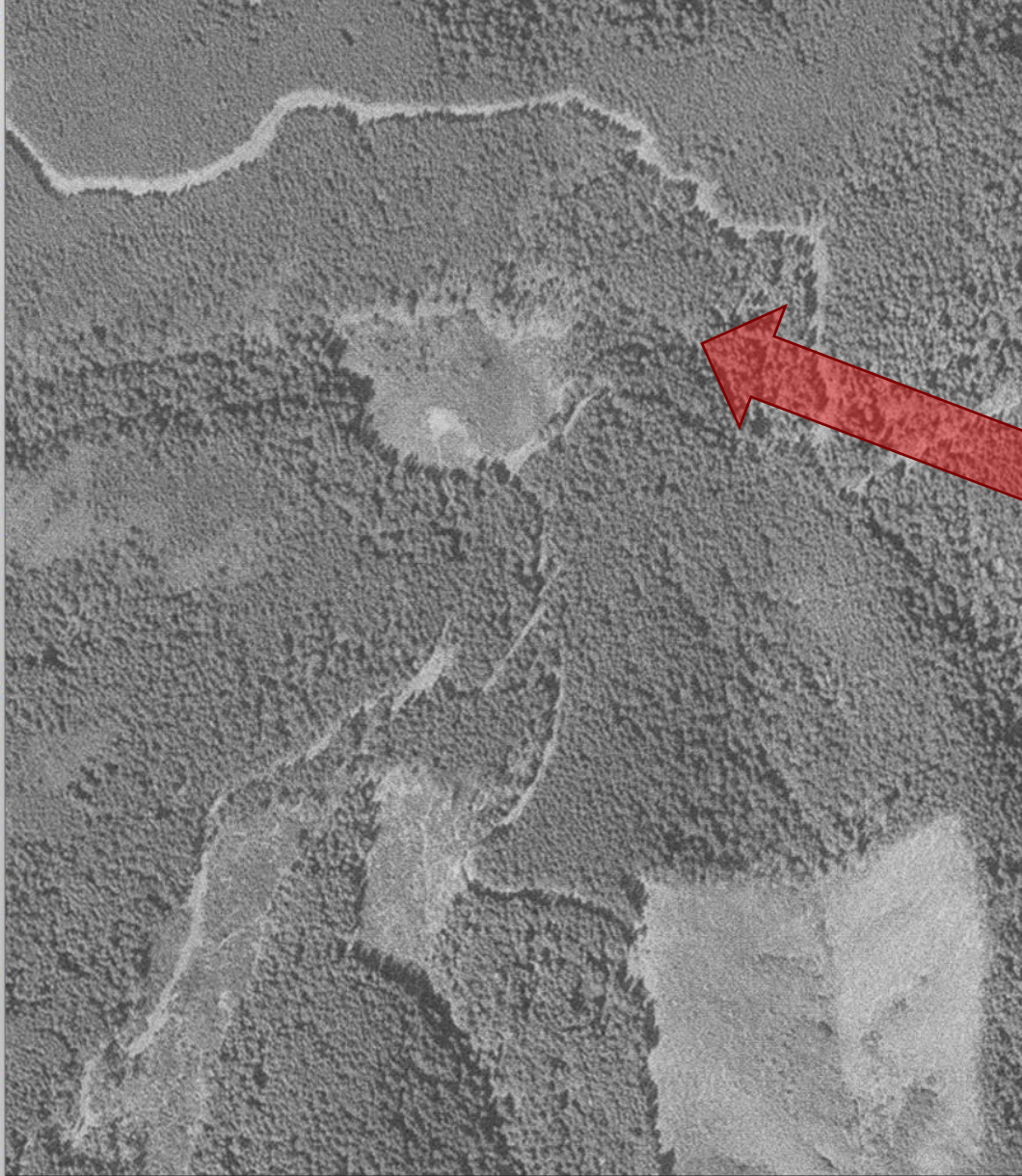
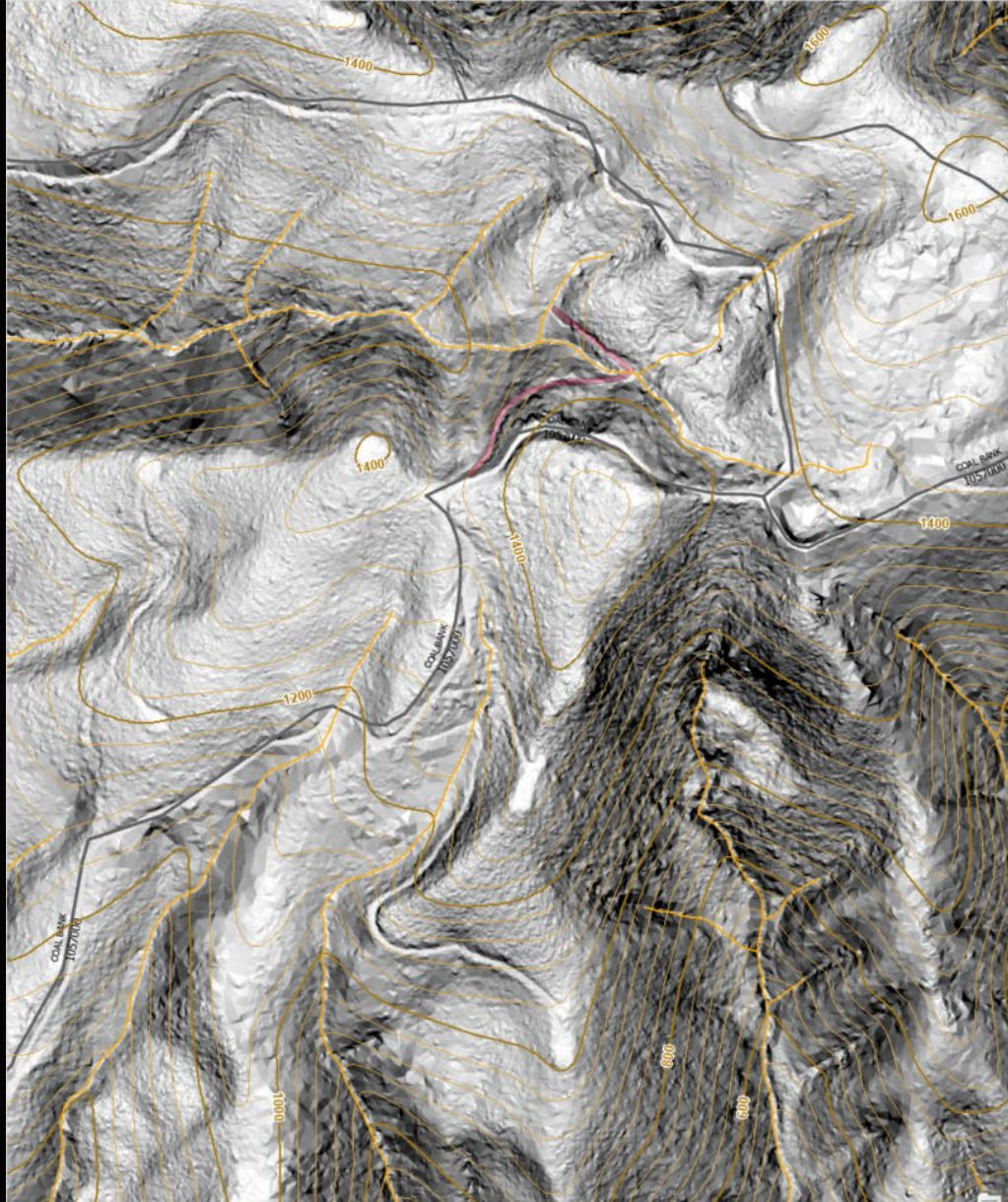


Site 3



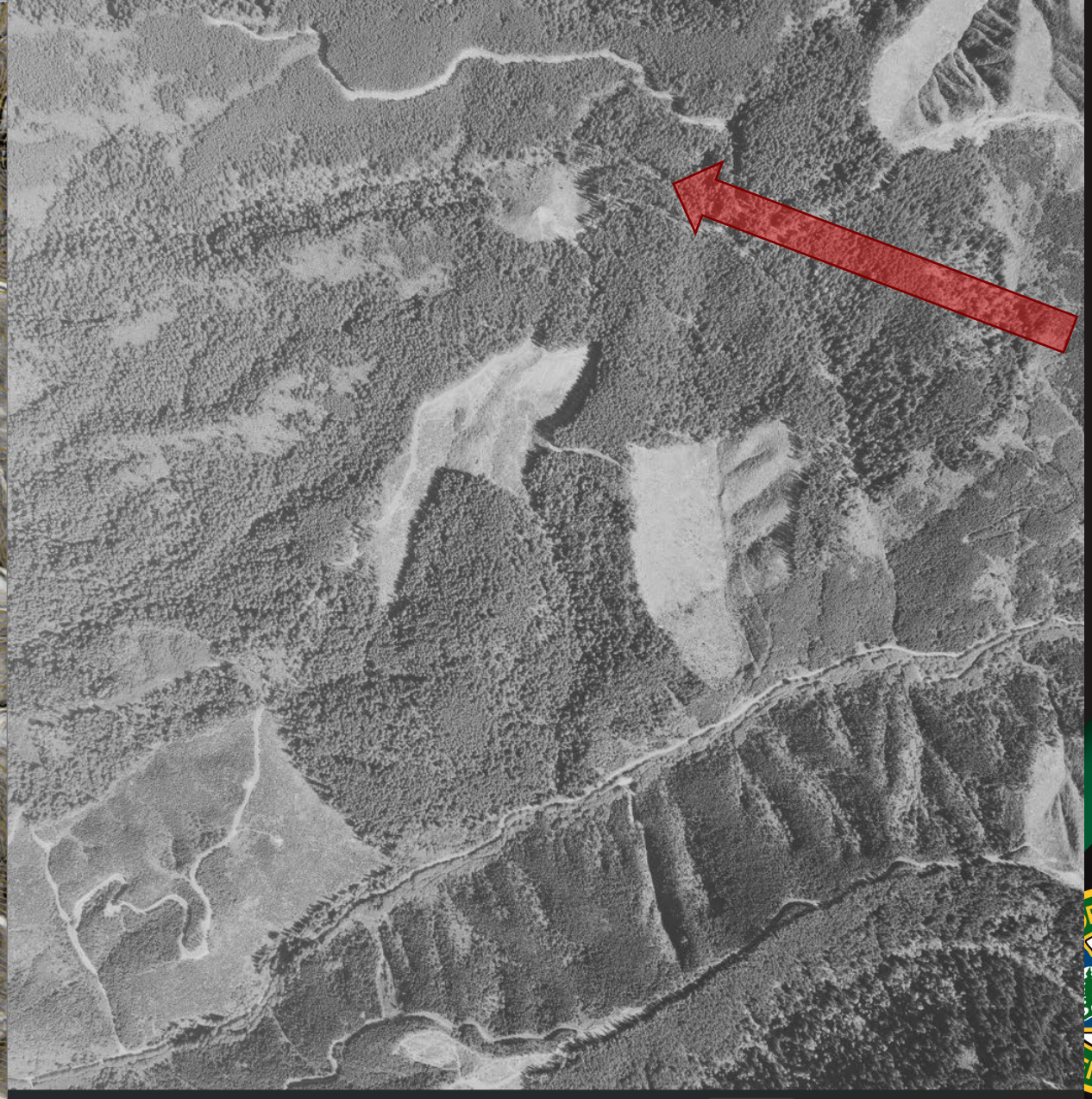
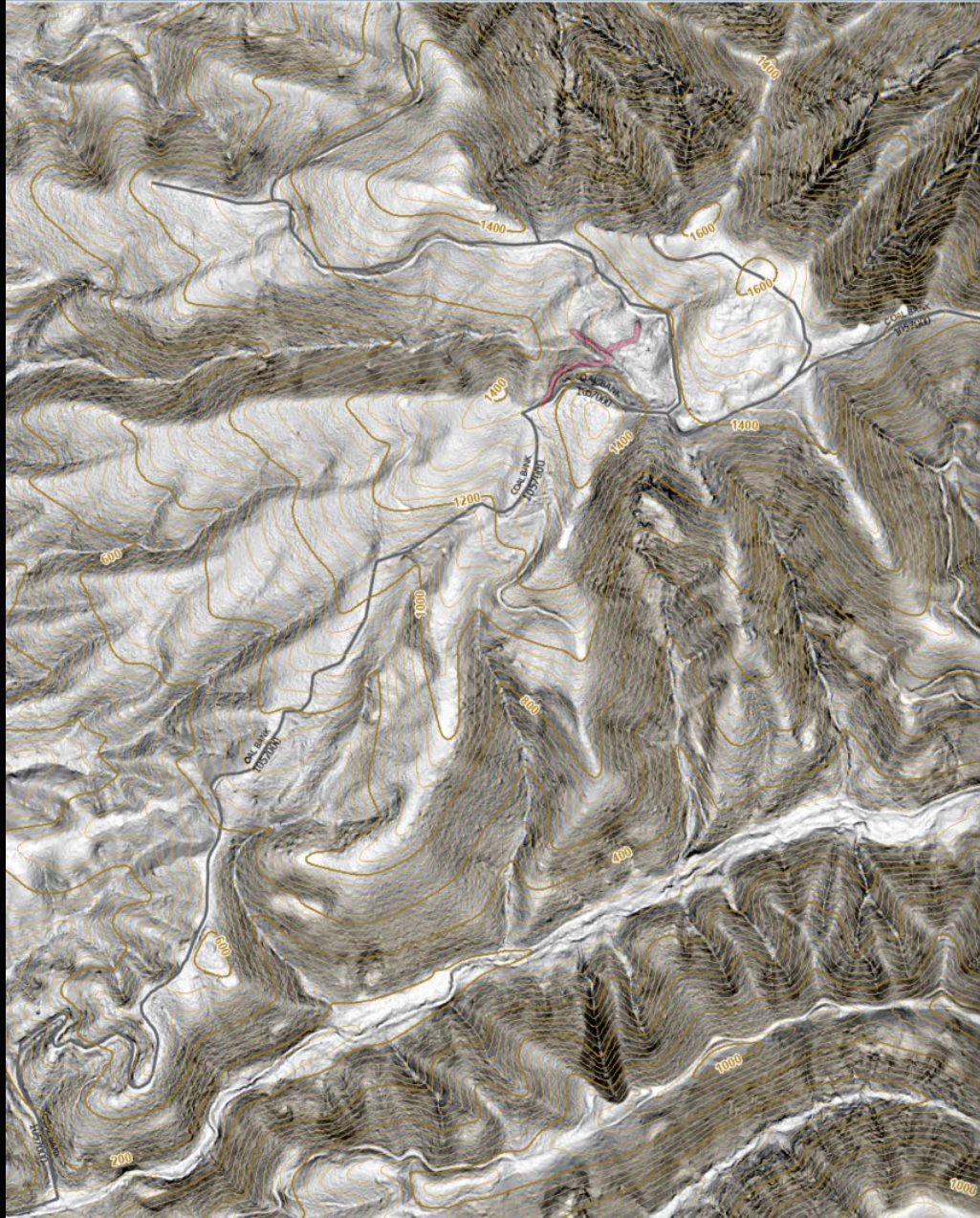
Site 3

Orthoimagery from 1975



Site 3

1976



Site 3





Questions?

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