

# Hydropower Program

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LEGISLATIVE UPDATE

HOUSE ENERGY COMMITTEE  
MARCH 31, 2026

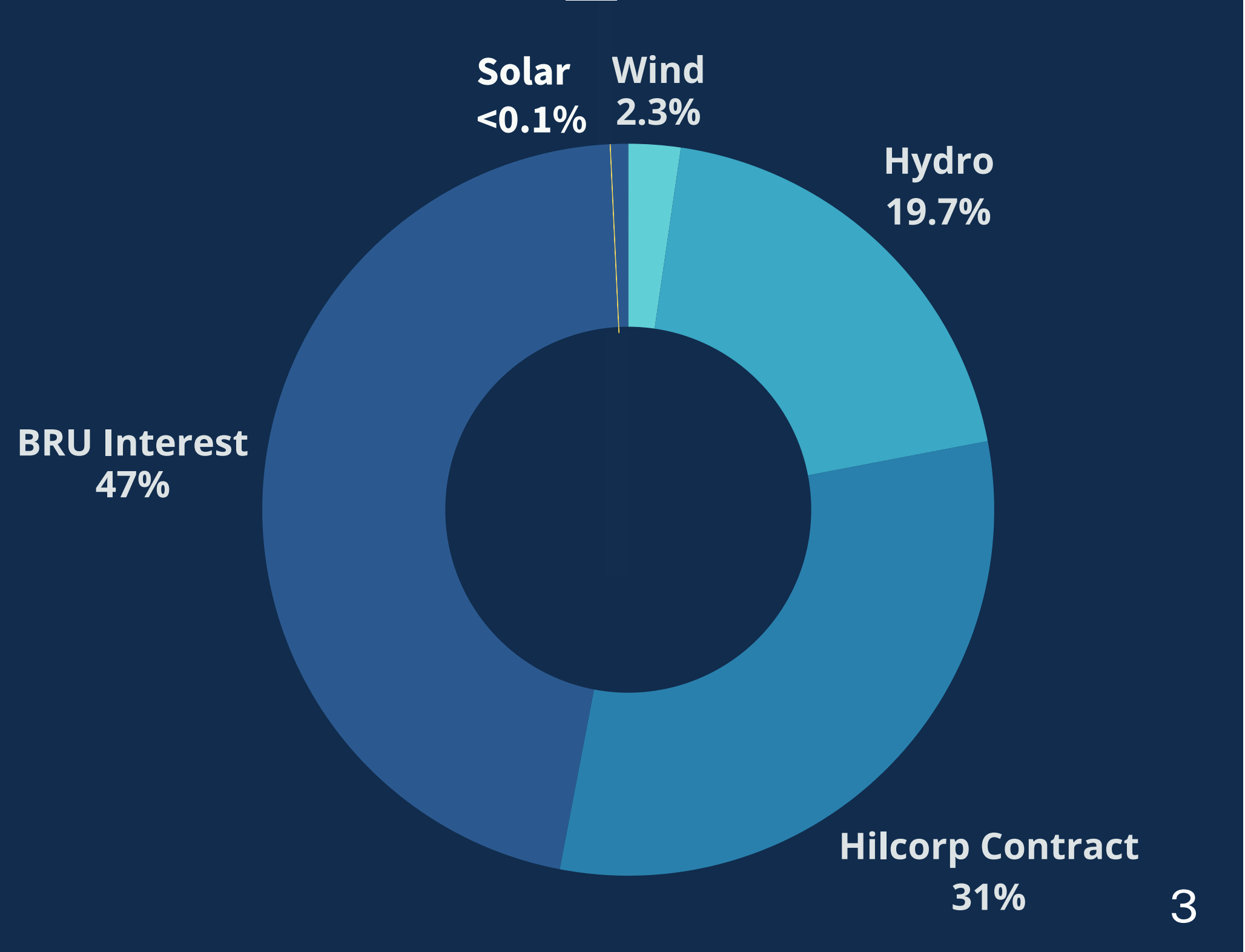


# Agenda

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- Chugach's Generation Mix
- Strategic Alignment
- Decarbonization Goals and Roadmap
- Site Selection Process
- Sites Selected for Investigation
- Program Status
- Stakeholder Engagement
- FERC Preliminary Permit
- FERC Permit Timeline

# CHUGACH GENERATION MIX



# Strategic Alignment

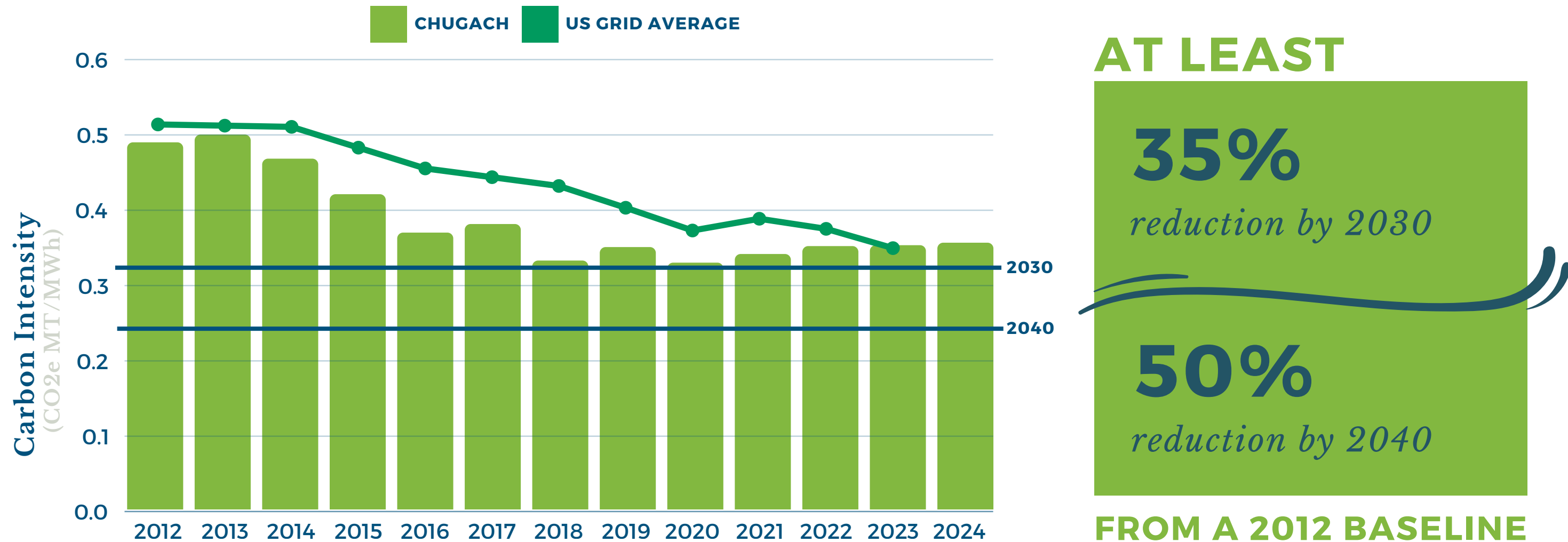
## Strategic Priority Area: Decarbonization

- Reduce carbon intensity by at least 35% by 2030 and 50% by 2040, without a negative material impact on rates and reliability
- Regularly assess and adjust decarbonization strategies while balancing decarbonization with reliability and affordability

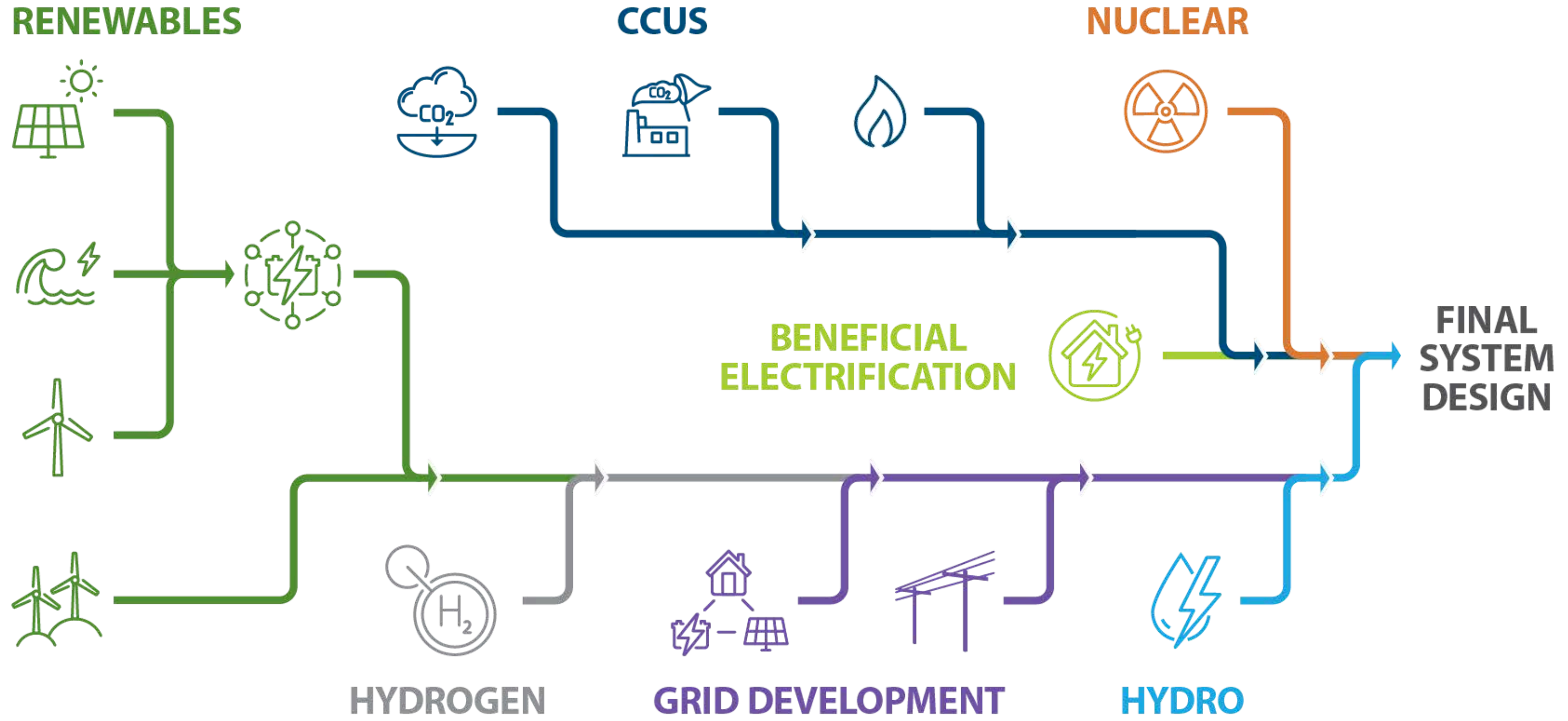


# CARBON REDUCTION GOAL

Chugach's Strategic Plan establishes a goal of reducing Chugach's carbon intensity, from a 2012 baseline year, by at least 35% by 2030, and by at least 50% by 2040, provided there is not a negative material impact to electric rates and reliability.



# The Roadmap



# Site Selection Process

# Hydro Sites Information

Rough Data Gathered for 158 Sites

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## Observed

- Distance to existing roads
- Distance to existing transmission
- Distance to town or city
- Within National Park
- On anadromous reach
- Land ownership

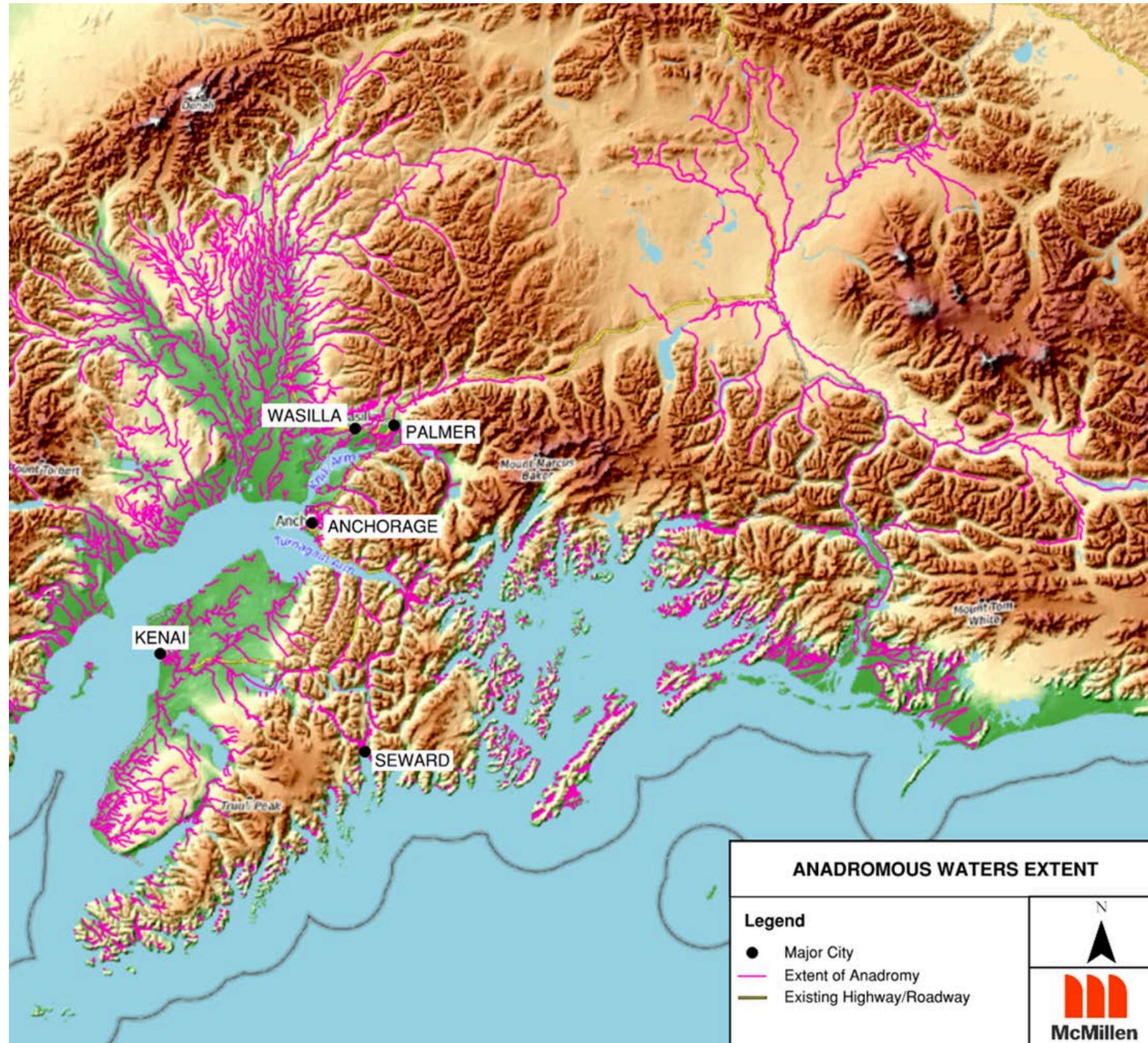
## Estimated

- Hydraulic criteria
- Capacity factor
- Annual energy

## Calculated

- Capital costs
  - Project
  - Roadway
  - Transmission
- Cost per kW
- Energy Production Rate (\$/MWh)

# Screening Criteria



## • Initial Screening List

- Exclude Projects in Fairbanks / Denali National Park Region
- Specific Capital Cost < \$12,000/kW
- Exclude projects with dams or diversions on anadromous reaches
- Sort based on best Energy Production Rates

## • Expanded Screening List (After Stakeholder Input)

- No Wilderness Areas
- No Designated Wild/Scenic Rivers
- No interbasin transfers
- No projects in Moose Creek watershed

# Sites Selected for Investigation

# Initial Selections

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**BOULDER CREEK**



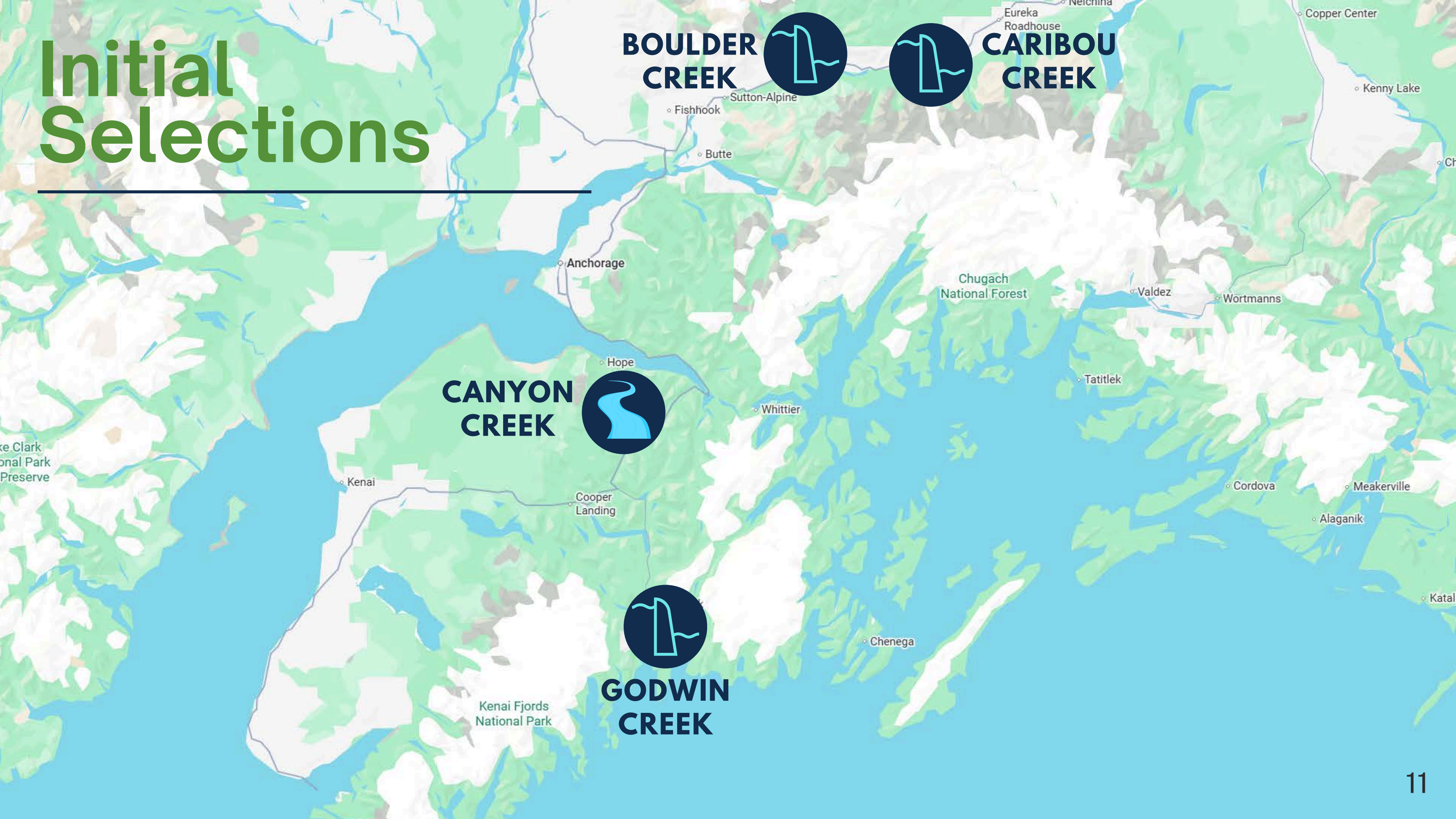
**CARIBOU CREEK**



**CANYON CREEK**



**GODWIN CREEK**



# Canyon Creek

- 6 MW AC
- ~14,100 MWh/year production
- ~102,930 Mcf/year avoided natural gas
- Budget \$14M to \$58M (no ITC)

- **Configuration**

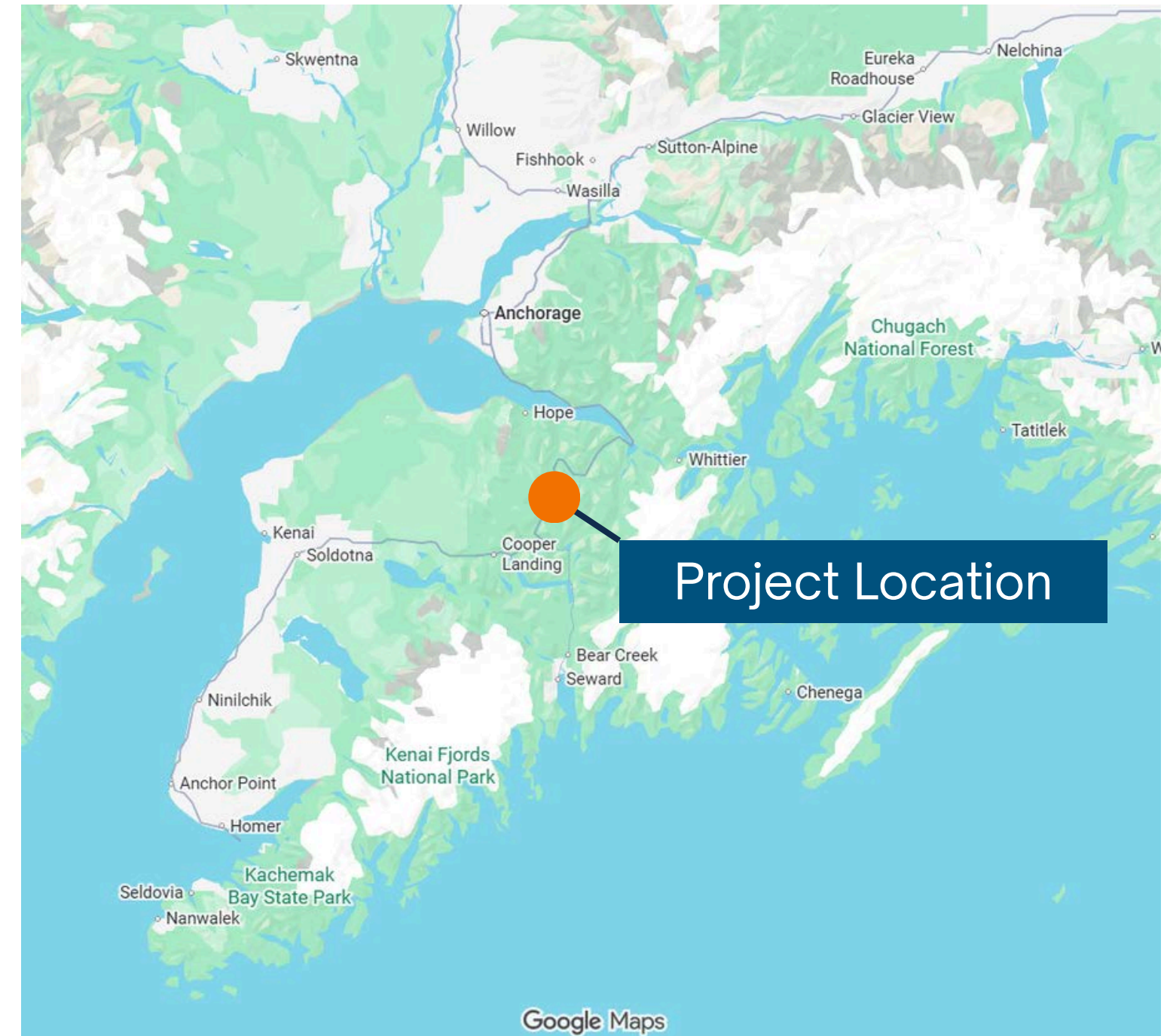
- Run of River

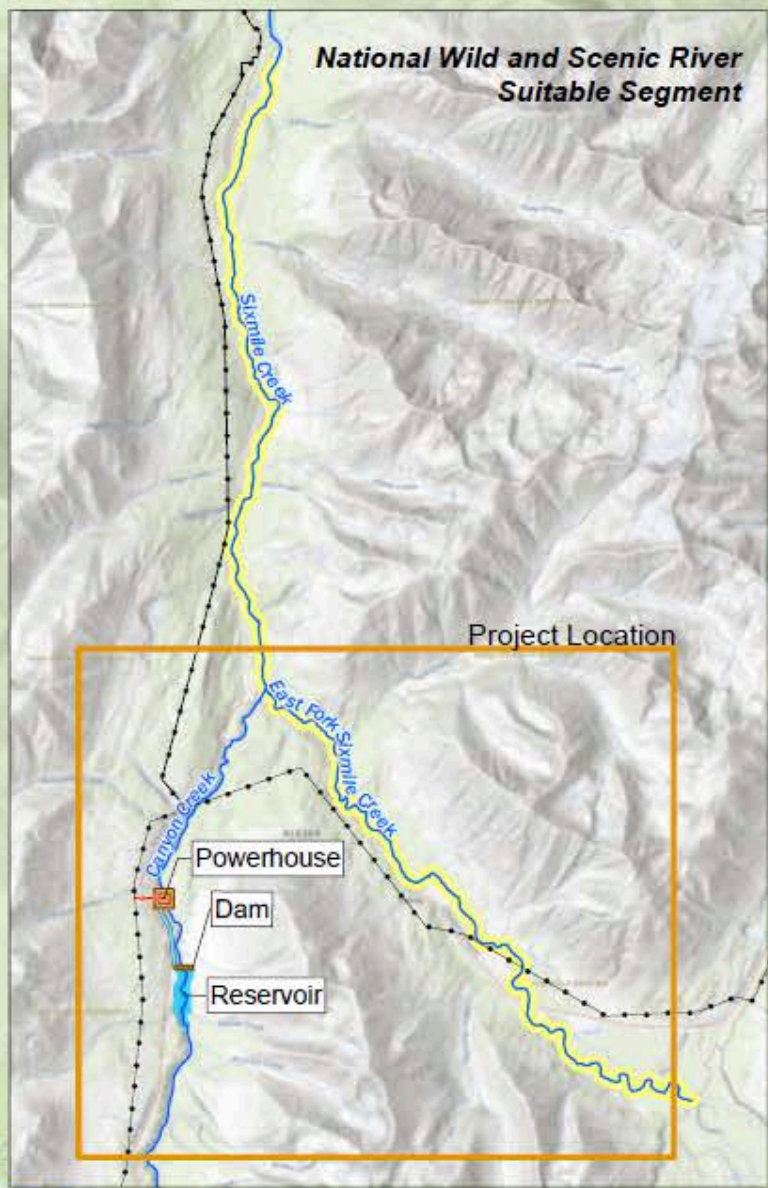
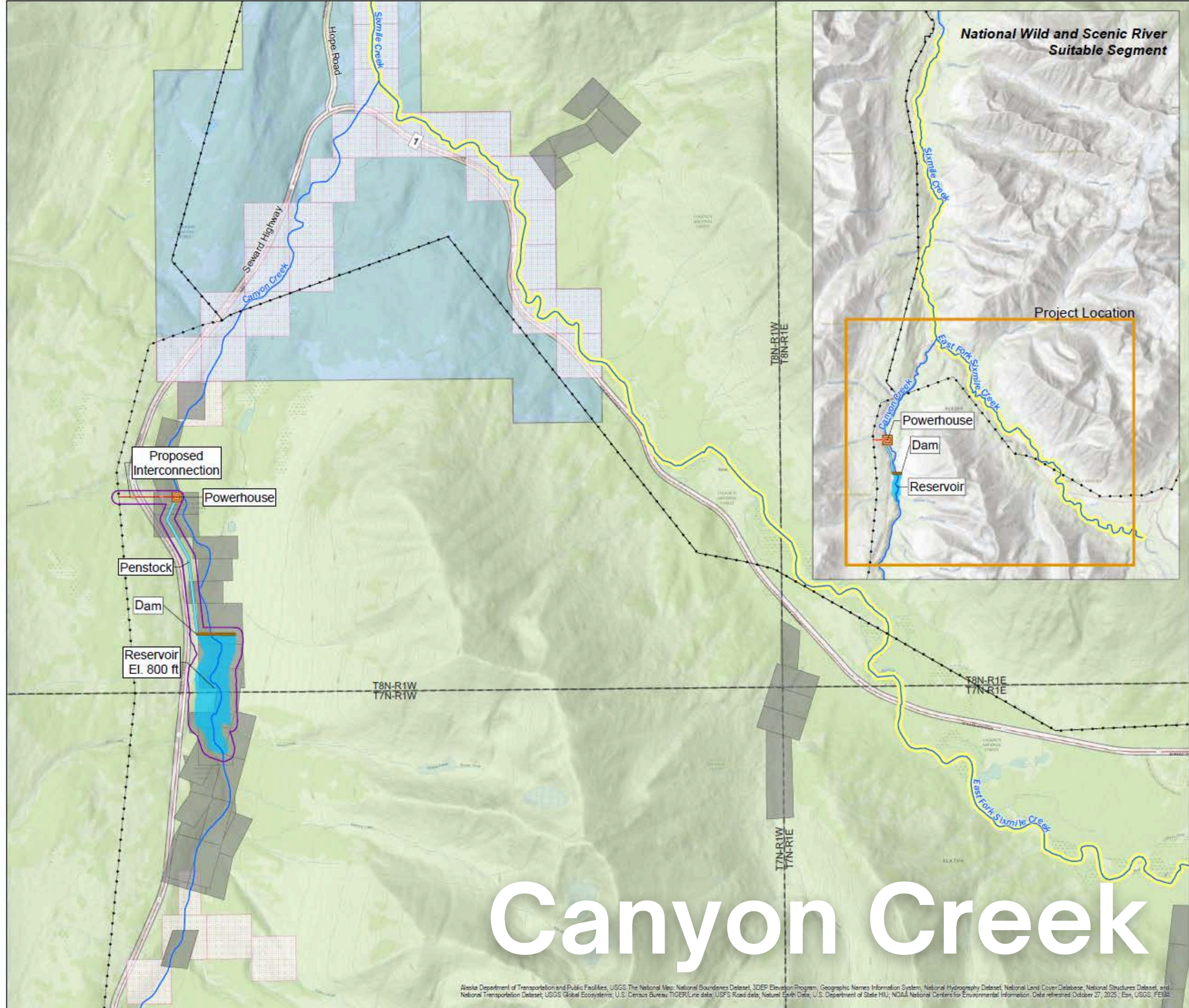
- **Land Ownership**

- USFS

- **Features**

- Concrete faced rockfill embankment dam
- 60 inch penstock
- 6.3 MW Kaplan turbine
- 115 kV interconnection
- 40 acre impoundment area
- 8,000 acre-feet storage volume





- Legend**
- Powerhouse
  - BLM Mining Claim
  - Dam
  - Reservoir
  - State Mining Claim
  - Proposed Interconnection
  - Penstock
  - Rivers
  - Recommended for Inclusion in the National Wild and Scenic River System
  - Proposed Project Boundary
  - Land Ownership: Federal (USFS)
  - Land Ownership: State (ADNR)
  - PLSS Townships
  - Roads



**Canyon Creek Project  
Conceptual Layout  
Kenai Peninsula Borough, AK**

N

1 inch = 1,500 feet; at original map size 22x34"

0 0.25 0.5 1 Miles

# Canyon Creek

Alaska Department of Transportation and Public Facilities, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset, USGS Global Ecosystems, U.S. Census Bureau TIGER/Line data, USFS Road data, National Earth Data, U.S. Department of State HUI, NOAA National Centers for Environmental Information. Data refreshed October 27, 2025. Esri, USGS, FEMA.

# Godwin Creek

- 16 MW AC
- ~45,400 MWh/year production
- ~331,420 Mcf/year avoided natural gas
- Budget \$50M to \$199M (without ITC)

## • Configuration

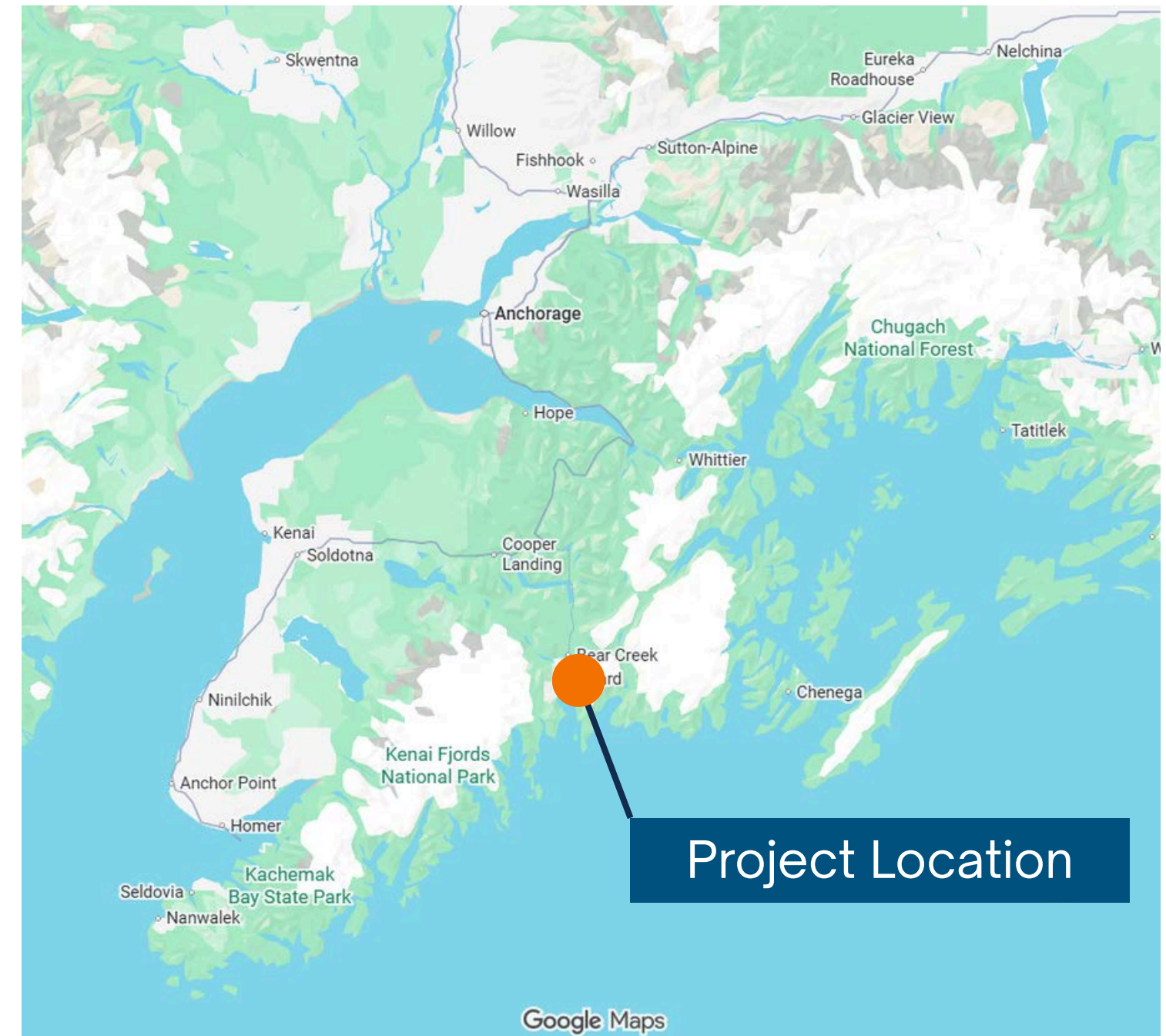
- Storage

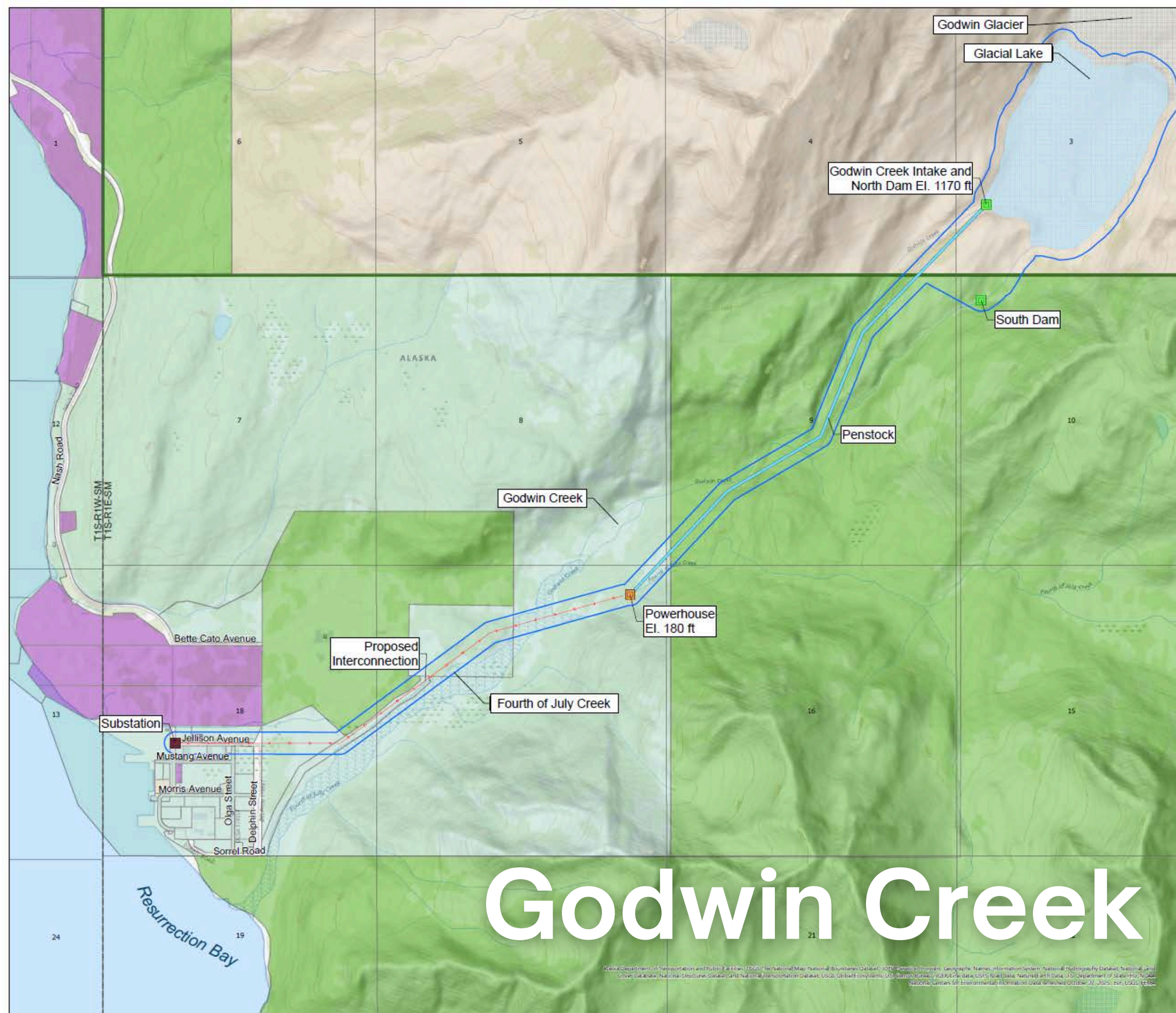
## • Land Ownership

- USFS
- State of Alaska
- City of Seward (transmission only)

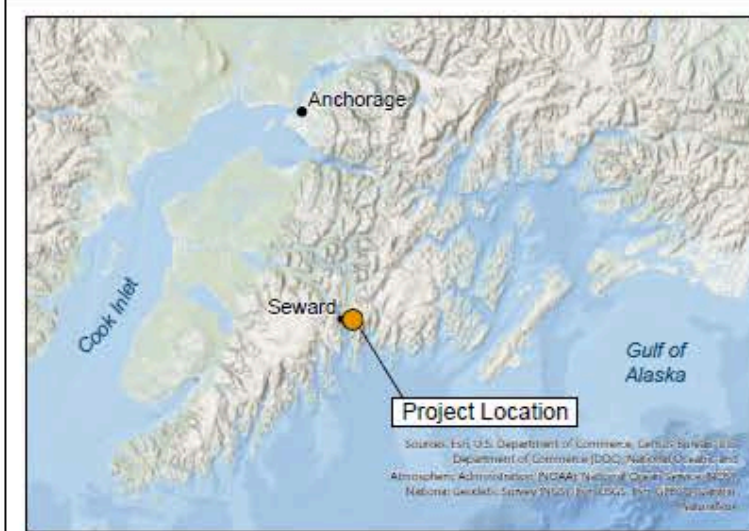
## • Features

- Two dams with intake, gatehouse, and trash rake
- 60 inch penstock
- 16 MW Pelton turbine
- 115 kV interconnection
- 90 acre impoundment area
- 26,000 acre-feet storage volume





# Godwin Creek



**Legend**

Dam	<b>Land Ownership</b>
Powerhouse	City of Seward
Substation	Federal
Penstock	Private
Proposed Interconnection	State (ADNR)
Proposed Project Boundary	PLSS Townships
	Chugach National Forest Boundary
	Roads

**CHUGACH**  
POWERING ALASKA'S FUTURE

**McMillen**

**Godwin Creek Project  
Conceptual Layout  
Seward, Alaska**

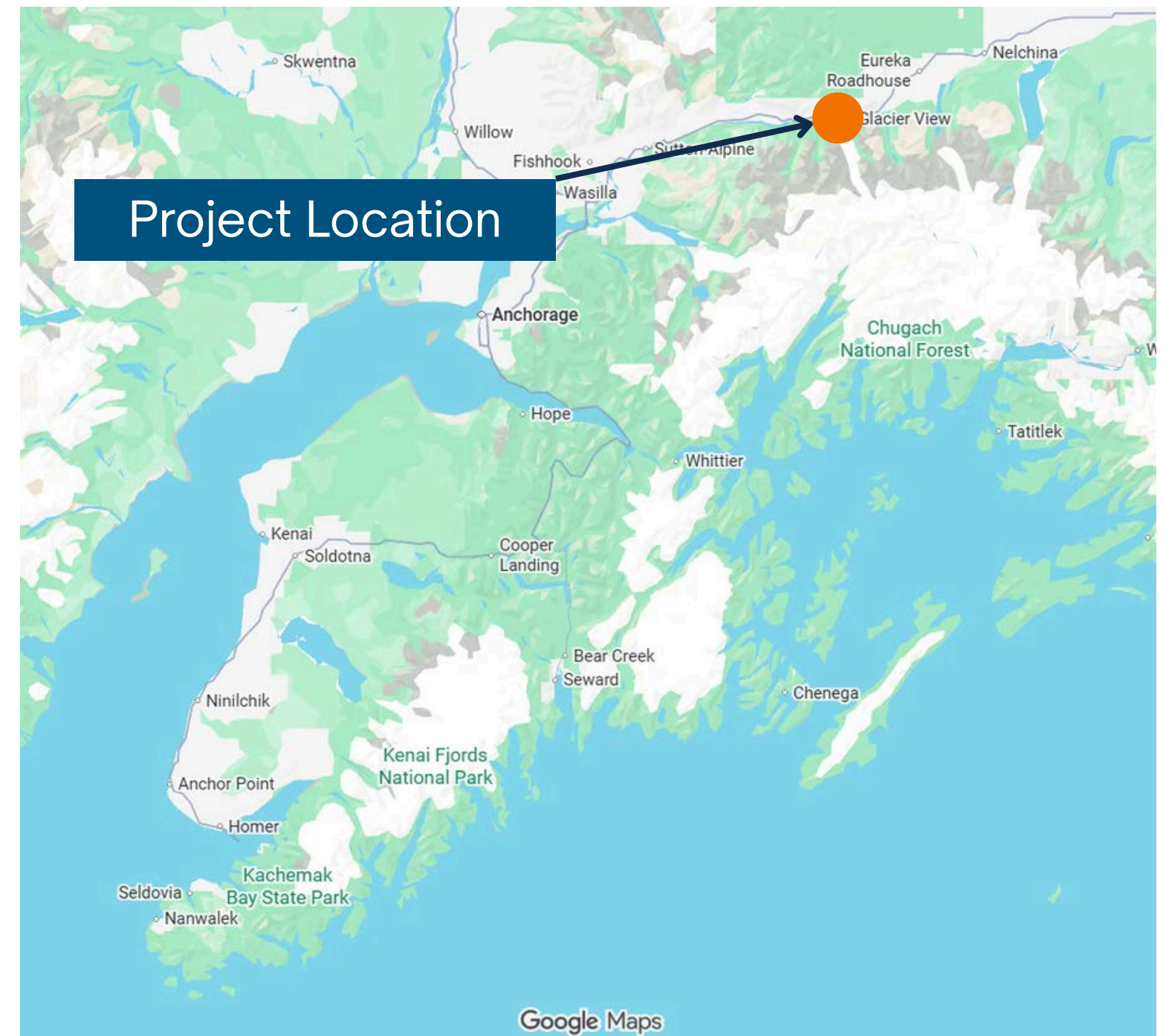
1 inch = 1,833 feet; at original map size 22x34"

0 0.25 0.5 1 1.5 Miles

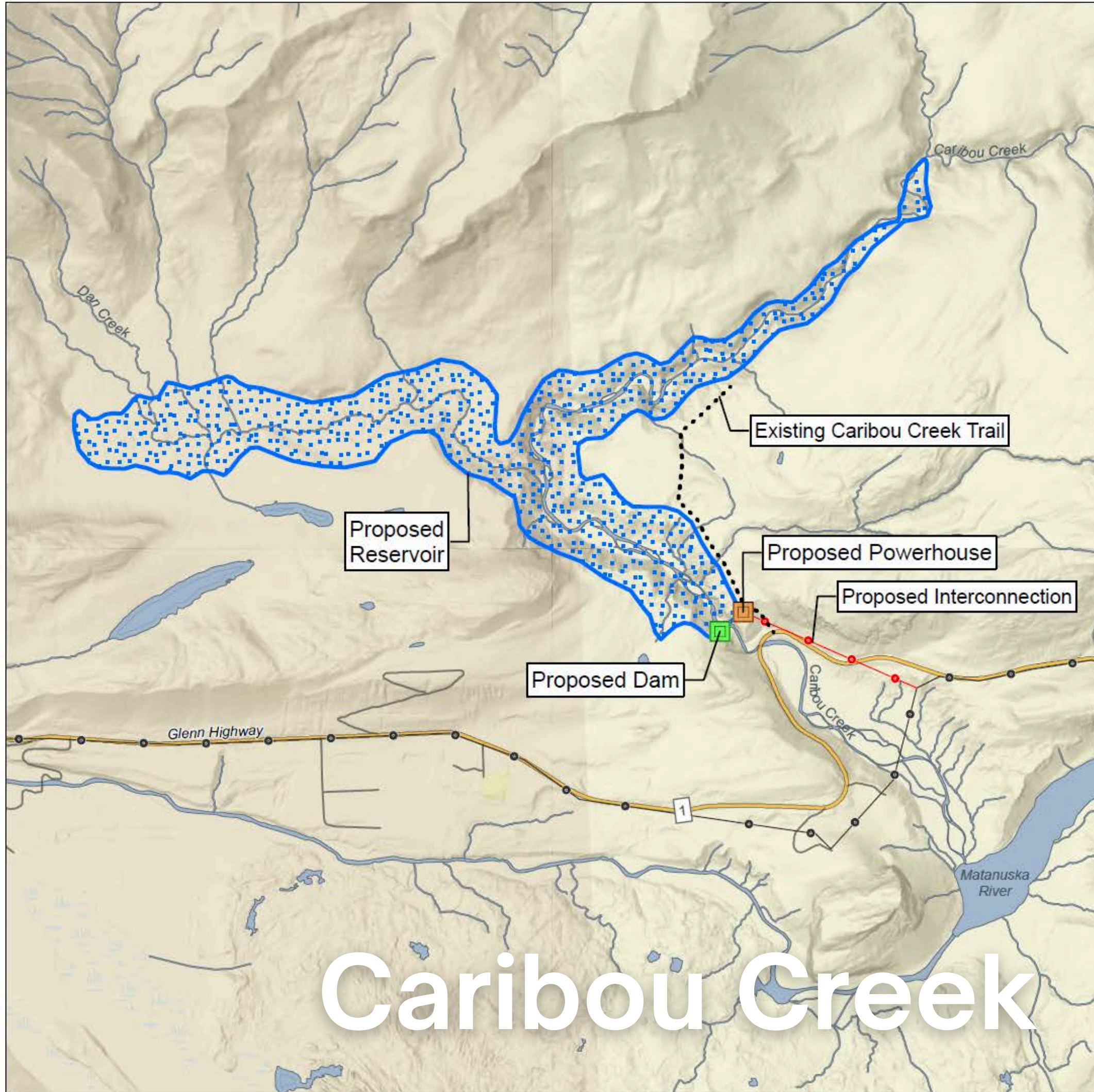
# Caribou Creek

- 18 MW AC
- ~58,100 MWh/year production
- ~424,130 Mcf/year avoided natural gas
- Budget \$70M to \$281M (without ITC)

- **Configuration**
  - Storage
- **Land Ownership**
  - State
  - CIRI
- **Features**
  - Concrete-faced rockfill embankment dam
  - 84 inch penstock
  - Two 8.8 MW Francis turbines
  - 980 acre impoundment area
  - 108,000 acre-feet storage volume



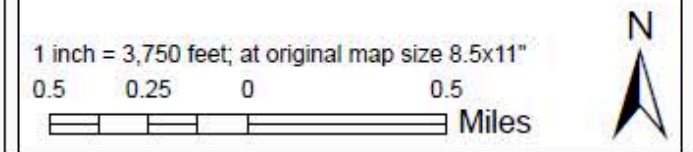
BACKGROUND IMAGERY: Esri, U.S. Department of Commerce, Census Bureau; U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Geodetic Survey (NGS), Esri, USGS, Alaska Department of Transportation and Public Facilities



# Caribou Creek



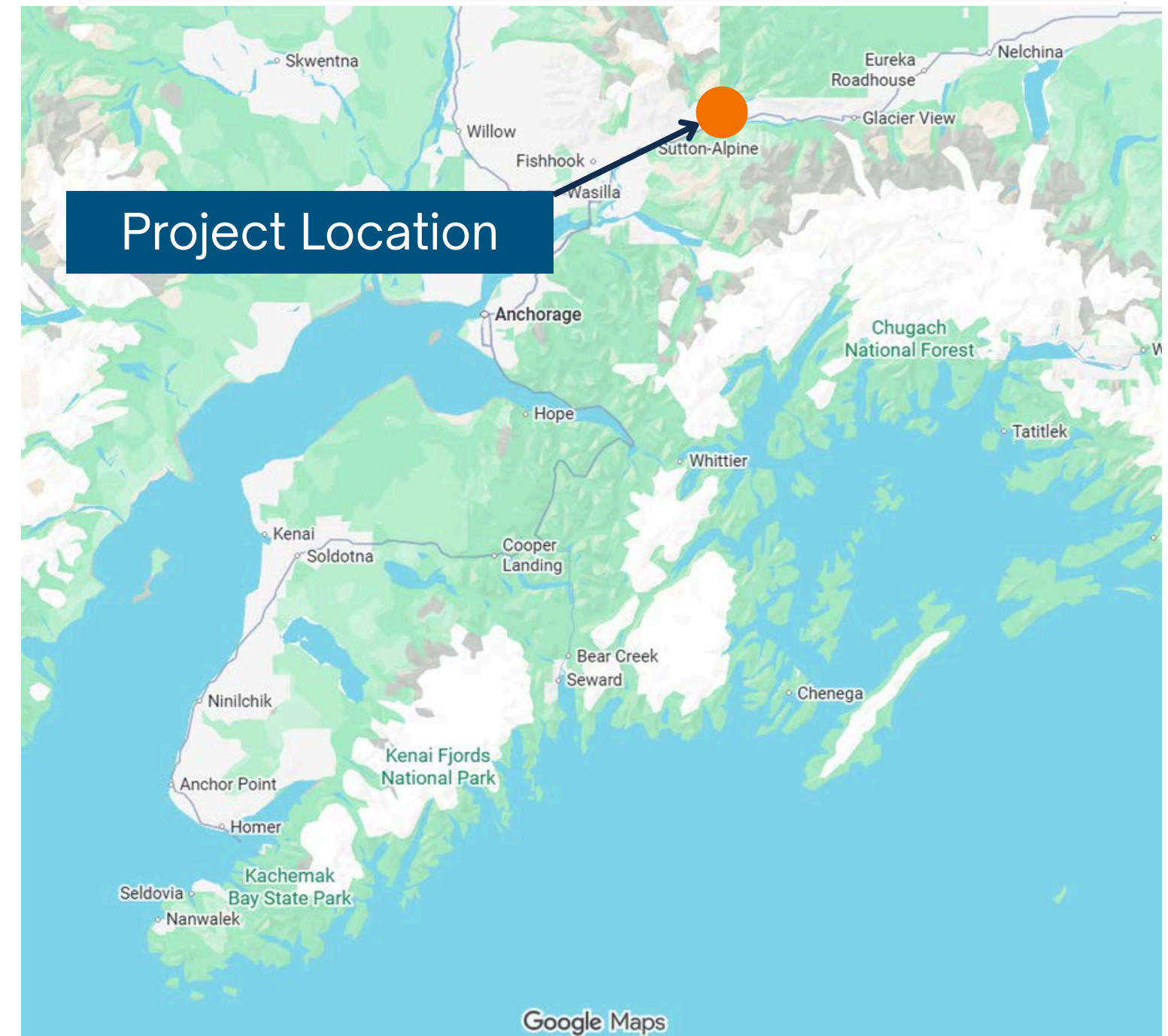
## Caribou Creek Site Layout



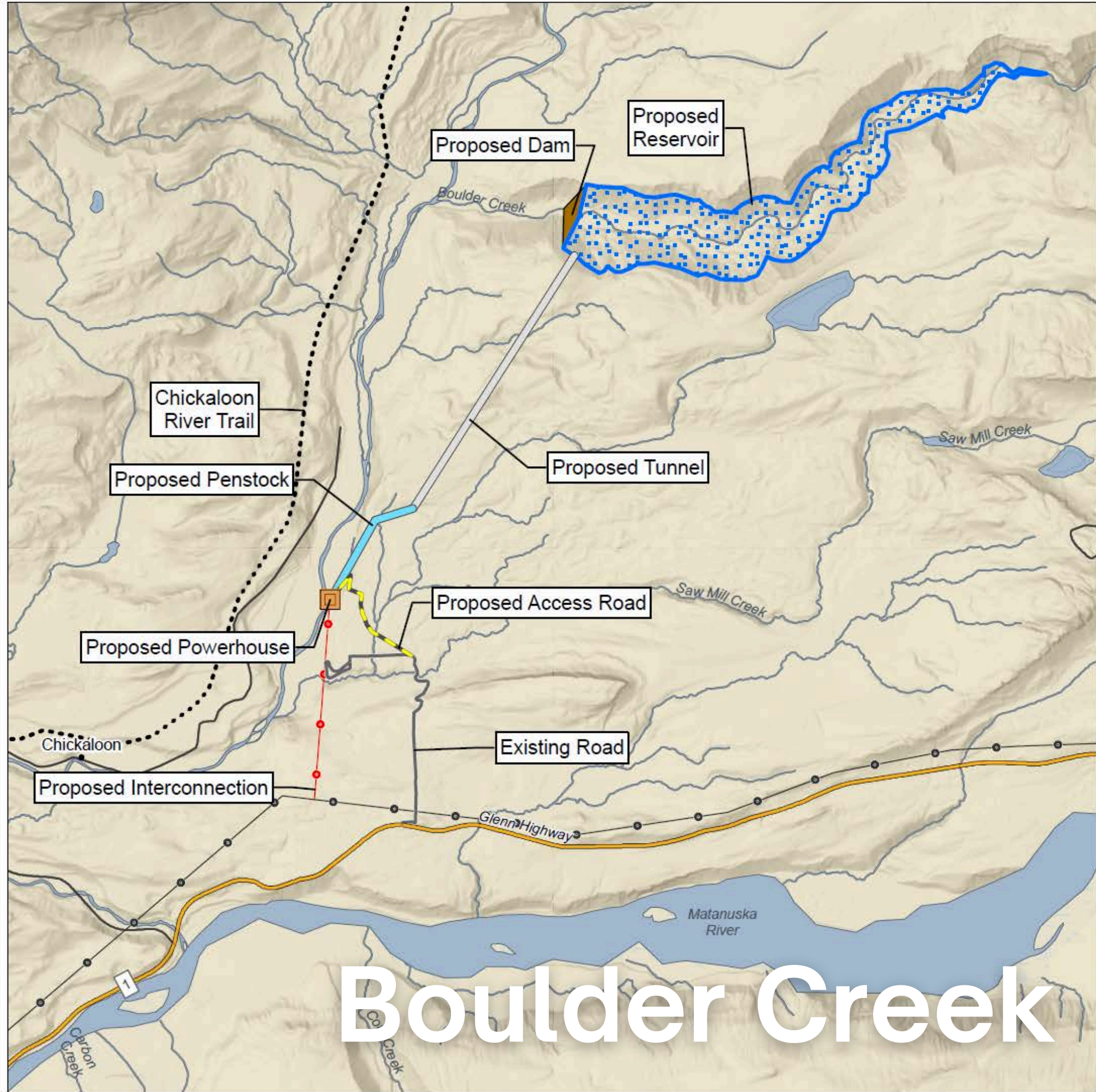
# Boulder Creek

- 8.5 MW AC
- ~29,000 MWh/year production
- ~211,700 Mcf/year avoided natural gas
- Budget \$118M to \$472M (without ITC)

- **Configuration**
  - Storage
- **Land Ownership**
  - State
  - CIRI
  - Chickaloon-Moose Creek Native Association
- **Features**
  - Concrete arch dam
  - Two 8.5 MW Francis turbines
  - 270 acre impoundment area
  - 37,000 acre-feet storage volume



BACKGROUND IMAGERY: Sources: Esri; U.S. Department of Commerce, Census Bureau; U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Geodetic Survey (NGS), Esri, USGS, Alaska Department of Transportation and Public Facilities



# Boulder Creek



**Legend**

Proposed Powerhouse	Proposed Dam
Proposed Interconnection	Proposed Reservoir
Proposed Tunnel	Roads
Proposed Penstock	Highways
Existing Trail	
Existing Road	
Proposed Access Road	

**Boulder Creek Site Layout**

1 inch = 3,111 feet; at original map size 8.5x11"

0.5 0.25 0 0.5 Miles

# Program Status

# Hydro Program

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- **Project Management**

- Down selected projects from 158 to short list
- Initial four (4) sites selected
- Dixon Diversion due diligence underway

- **Environmental & Regulatory**

- **Permitting**

- FERC Preliminary Permit applications submitted
- ADNR water right permit applications submitted

- **Stakeholder Engagement**

- Website landing page complete
- Stakeholder consultation record initiated
- Next round 1:1 meetings being scheduled for April

- **Site Characterization**

- LiDAR subcontract in progress
- Geotechnical analysis
- Stream gaging permits have been received for all sites; coordinating with ADNR for stream gaging support

- **Preliminary Designs**

- Not started

- **Pre-Feasibility Reports**

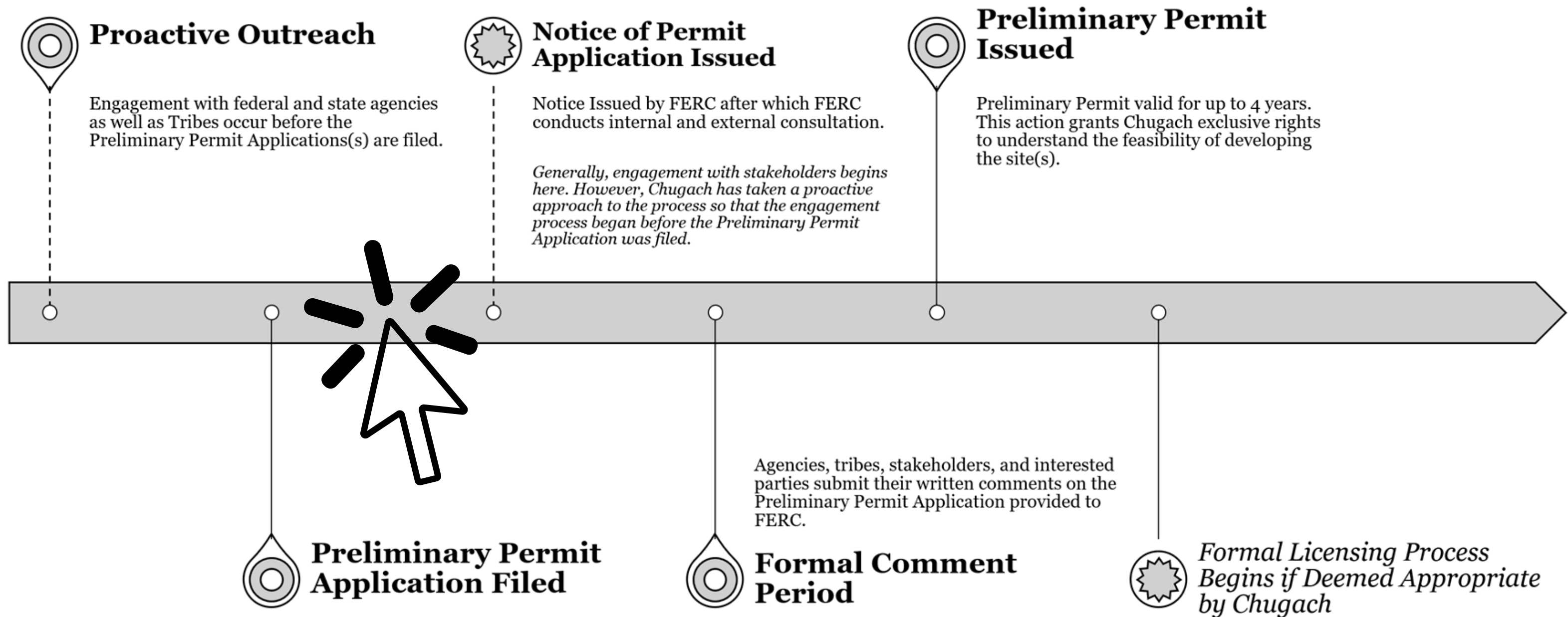
- Not started

# Early Stakeholder Engagement

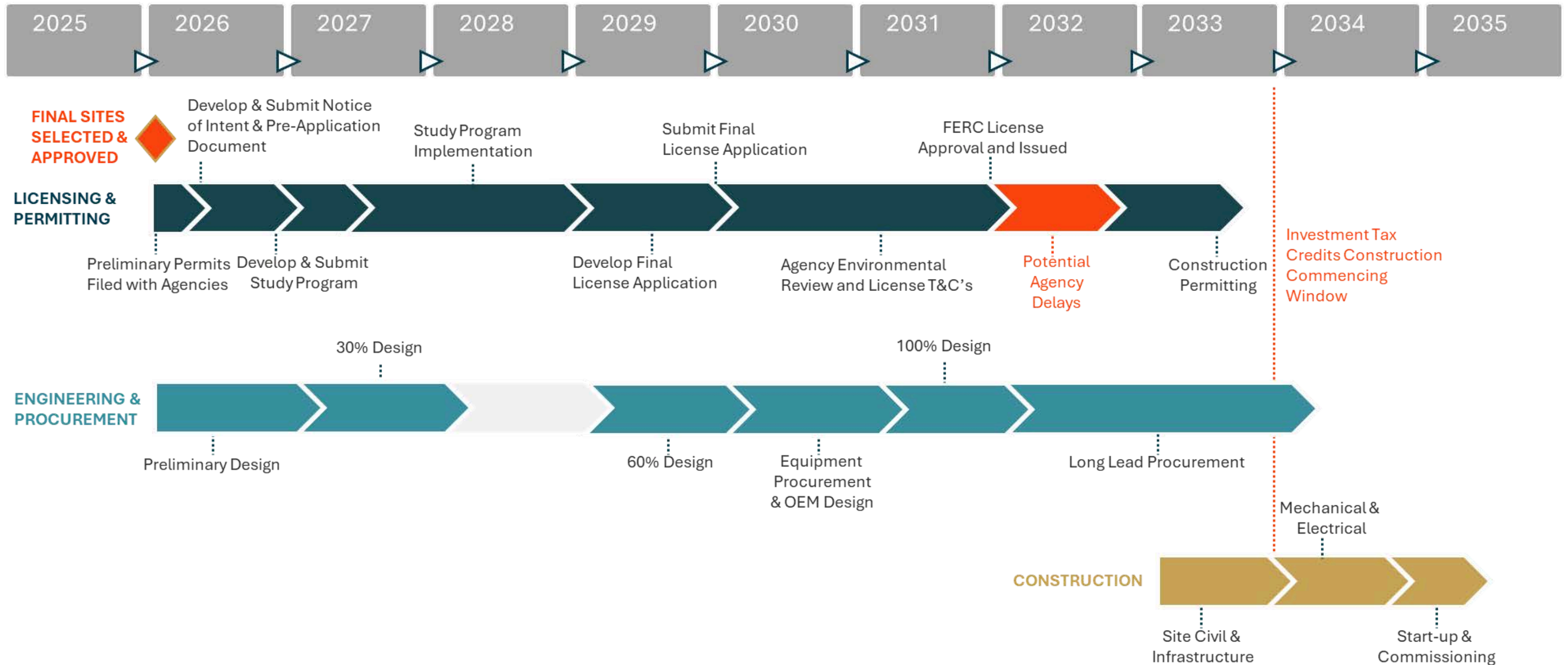


# FERC Preliminary Permit

## Preliminary Permit Process



# FERC Permit Timeline





Questions?