ALASKA ENERGY AUTHORITY

HYDROPOWER OPPORTUNITIES WITH CHANGE

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Dixon Glacier

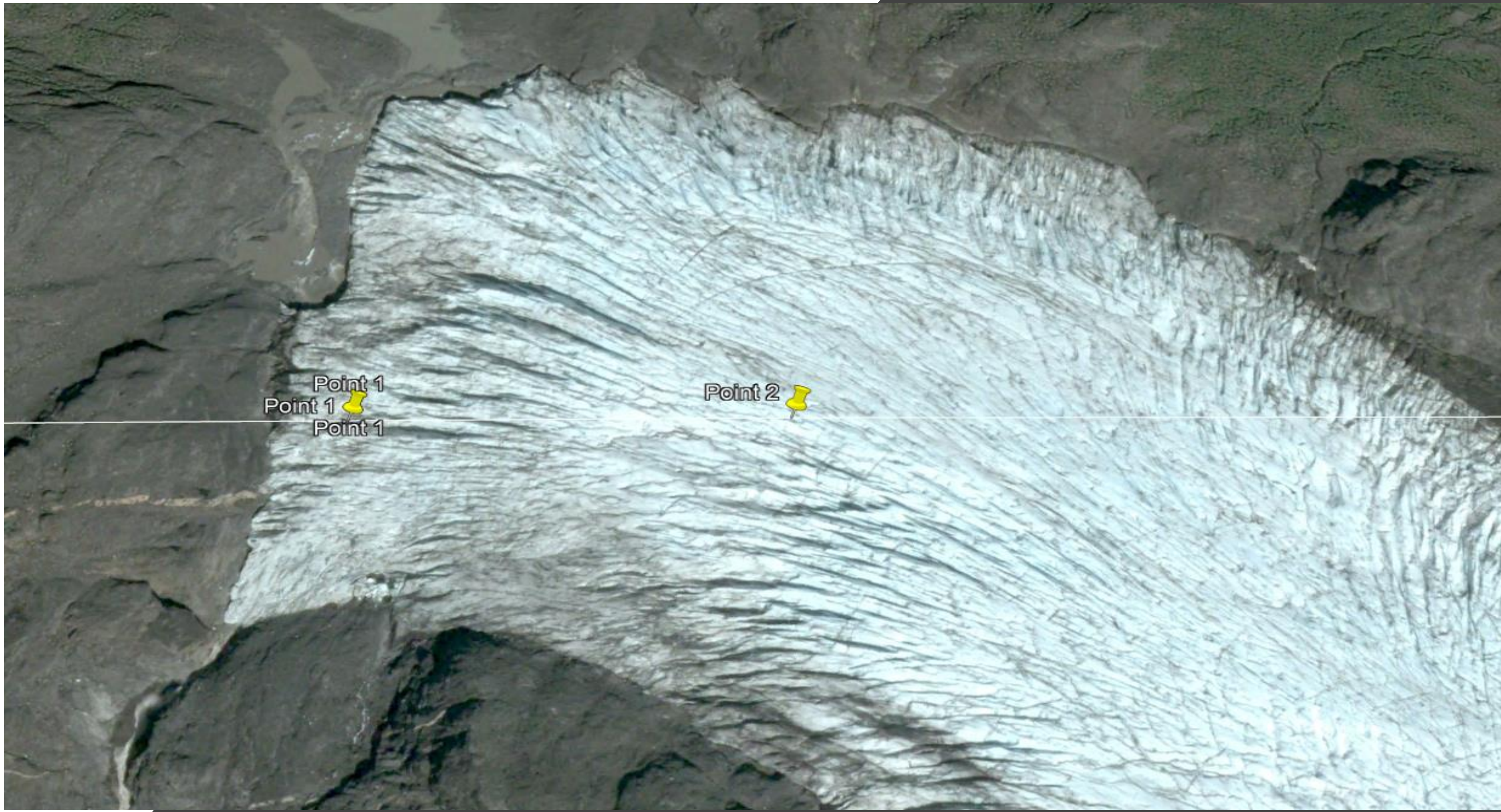
Dixon Diversion Project

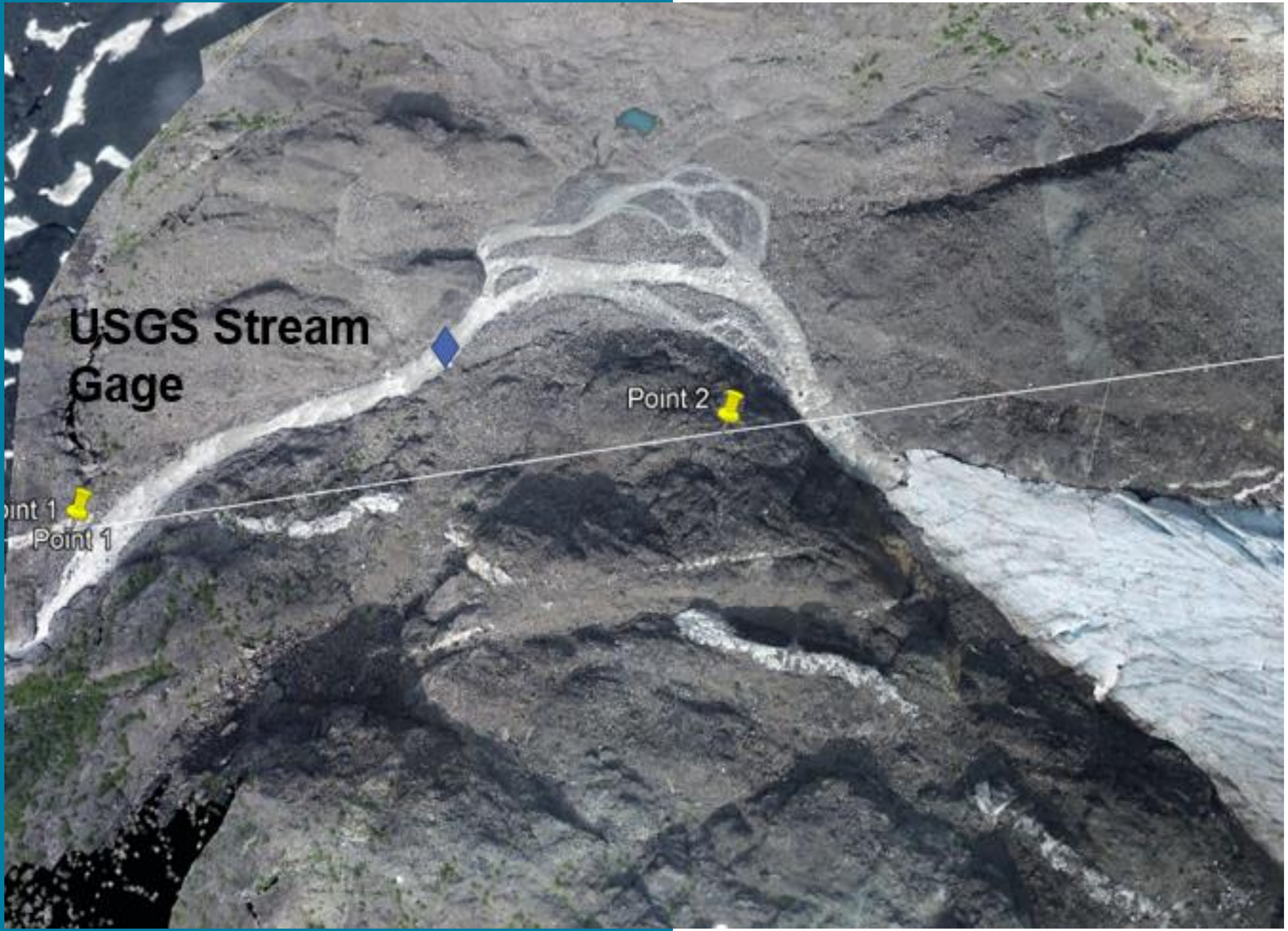
- AEA is investigating generating energy from the outflow of Dixon Glacier five miles southwest of the Bradley Lake Hydroelectric Project

- The Dixon Diversion Project would be largest renewable energy project in Alaska since Bradley Lake was completed in 1991

Dixon Diversion Project

- Dixon Glacier terminus August 2003





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Dixon Diversion Project

- August 2021 Dixon Glacier terminus
- Drainage area is ~20 square miles
- Land above line State of Alaska
- Land below line Wilderness Refuge

ALTERNATIVE 1

Bradley Lake

- 4.7 mile tunnel from intake to Bradley Lake
- Water goes through Bradley Lake powerhouse
- Raise spillway/dam to hold more water
- Entire project on State land

ALTERNATIVE 2

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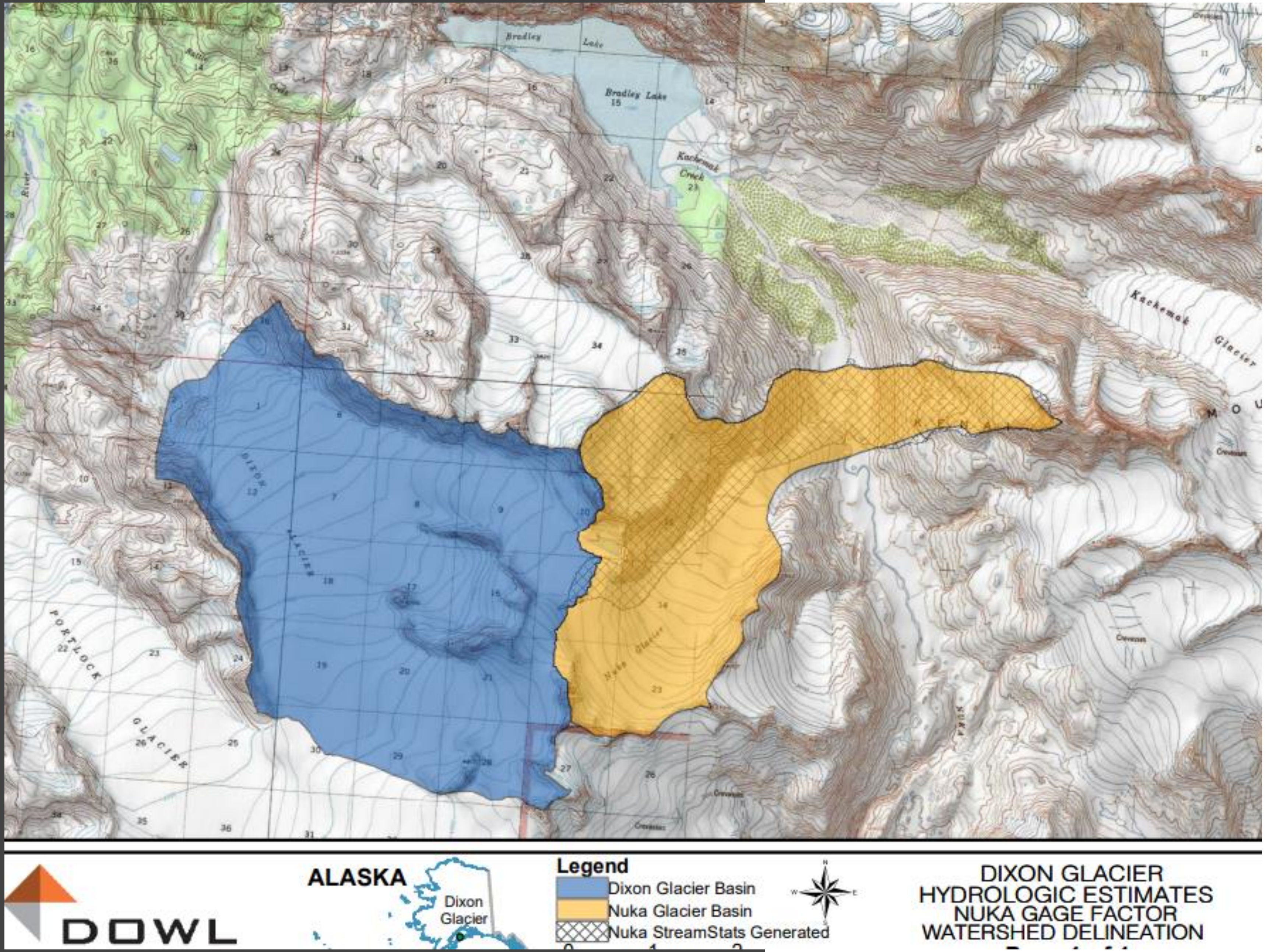
Martin River

- 2.8 mile power tunnel from intake to Martin River
- 55 MW power plant at Martin River at assumed upper limit of anadromous fish extent
- Transmission lines to connect with Bradley Lake transmission
- Raise spillway at Bradley Lake
- Entire project on State land



Drainage Basins

- 30+ years of discharge data from Nuka Glacier basin
- 10 years of discharge basin from Battle Glacier (NE of Dixon Glacier)
- Depending on method annual 156,000-201,000 ac-ft

Energy Potential

- Bradley Lake Alternative after reduction from assumed minimum in-stream flow 120,000 – 200,000 MWh
- Martin River Alternative after reduction from assumed minimum in-stream flow 100,000 – 160,000 MWh

AEA provides energy solutions to meet the unique needs of Alaska's rural and urban communities.

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