

# Nuyakuk Hydroelectric Project Update – January 2019

Nushagak Electric & Telephone Cooperative

January 2019



The Nuyakuk Hydroelectric Project is a regional infrastructure development that will bring both low cost, renewable energy and broadband telecommunications to communities throughout northern Bristol Bay. This design would divert water from above the falls, flow the diversion through an underground 1500' penstock (pipe), through a powerhouse and back into the river in a tail race below the falls. The powerhouse would have a very low visual impact.

The overall cost of this 30 megawatt regional hydroelectric project including, transmission facilities and communications fiber, is estimated at \$140 million. This would be first hydroelectric project in SW Alaska with regional service. In addition to Dillingham, the communities served include Aleknagik, Koliganek, New Stuyahok, Ekwok and Levelock. The potential exists for service to additional communities.

Nushagak Electric & Telephone Cooperative (NETC) advanced the project in 2018 through a combination of intensive outreach, support from State and Federal entities and capital investment by NETC. Specifics include:

- Over 70 presentations including Tribal entities, State and Federal agencies, Wood Tikchik Management Council, researchers and stakeholders
- Obtained a FERC preliminary permit and a State Parks special use permit
- Field activity including:
  - Water temperature and water quality monitors installed

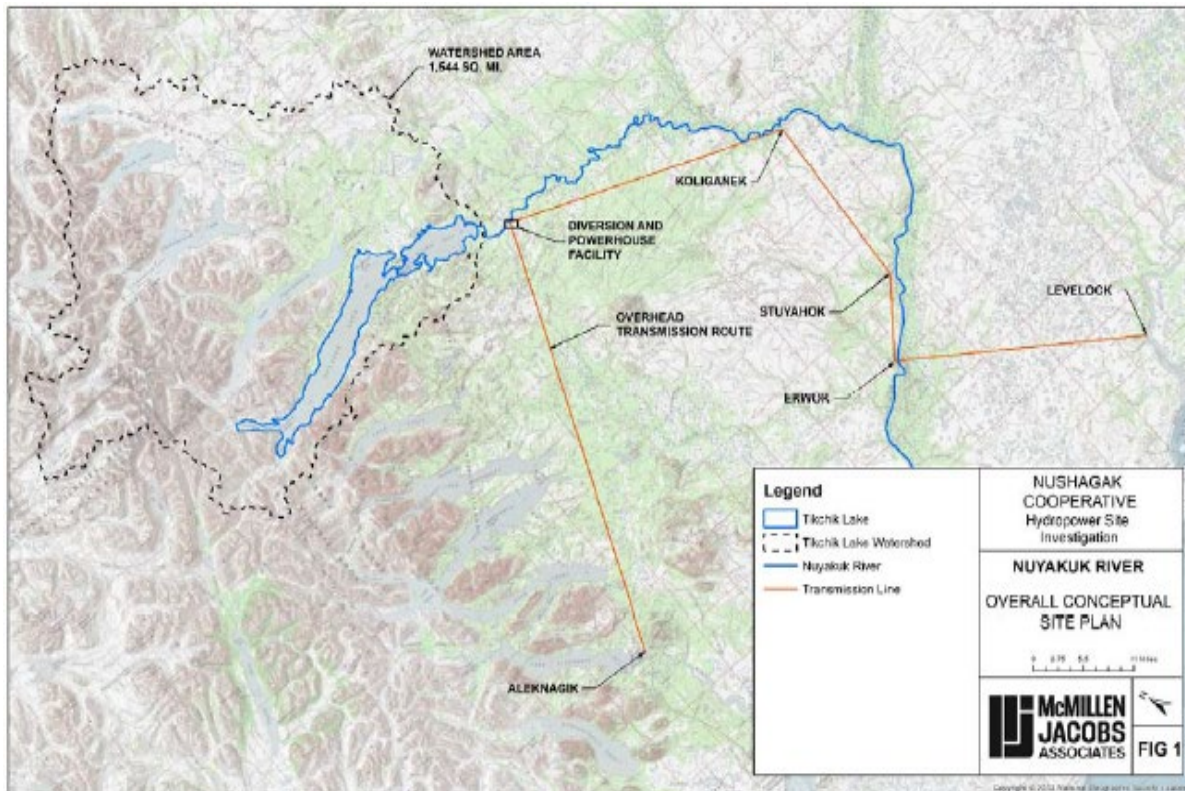
- Initial site survey
- Topographical assessment

Benefits of this project include:

- Displacement of 1.5 million gallons of diesel a year, at current consumption levels
- Yearly average generation capacity to accommodate substantial economic growth in the region, equivalent to 233 percent of current electrical consumption
- Extension -- for the first time -- of fiber communications to all communities served by the hydroelectric project's transmission/distribution system

Benefits for State of Alaska include:

- Potential reduction or elimination of annual PCE assistance:
  - The six communities benefiting from this project over the years 2012 to 2016 have an overall PCE assistance of \$1.75million/year
- The potential economic benefit to these communities in reduced power cost for residential and business consumers who don't qualify for PCE could be as much as \$4.8million/year (based on 15cents/kilowatt hour)
- Direct savings to State agency budgets through reduced energy and communications costs



Proposed transmission system. Size of the watershed is highlighted also. The Tikchik Lakes system provides an immense reservoir for the natural dam/spillway that is the falls.