

DOCKETED

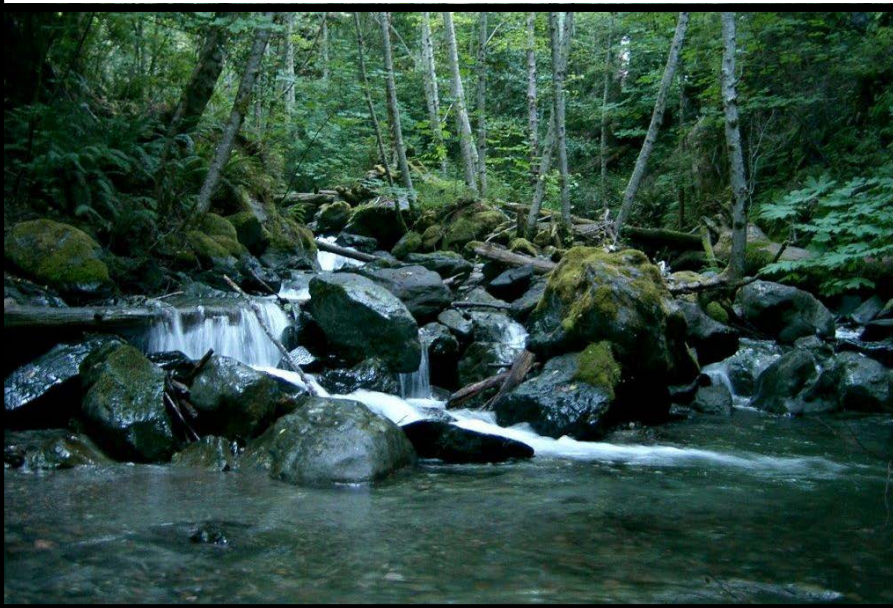
Docket Number:	18-IEPR-02
Project Title:	California's Energy Policy Leadership
TN #:	223274
Document Title:	Presentation - Yurok Reservation 18 Years of Electrification
Description:	By Peggy O'Neill - April 20, 2018 IEPR Workshop
Filer:	Denise Costa
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	4/24/2018 3:29:32 PM
Docketed Date:	4/24/2018

Yurok Reservation 18 Years of Electrification





Yurok Country

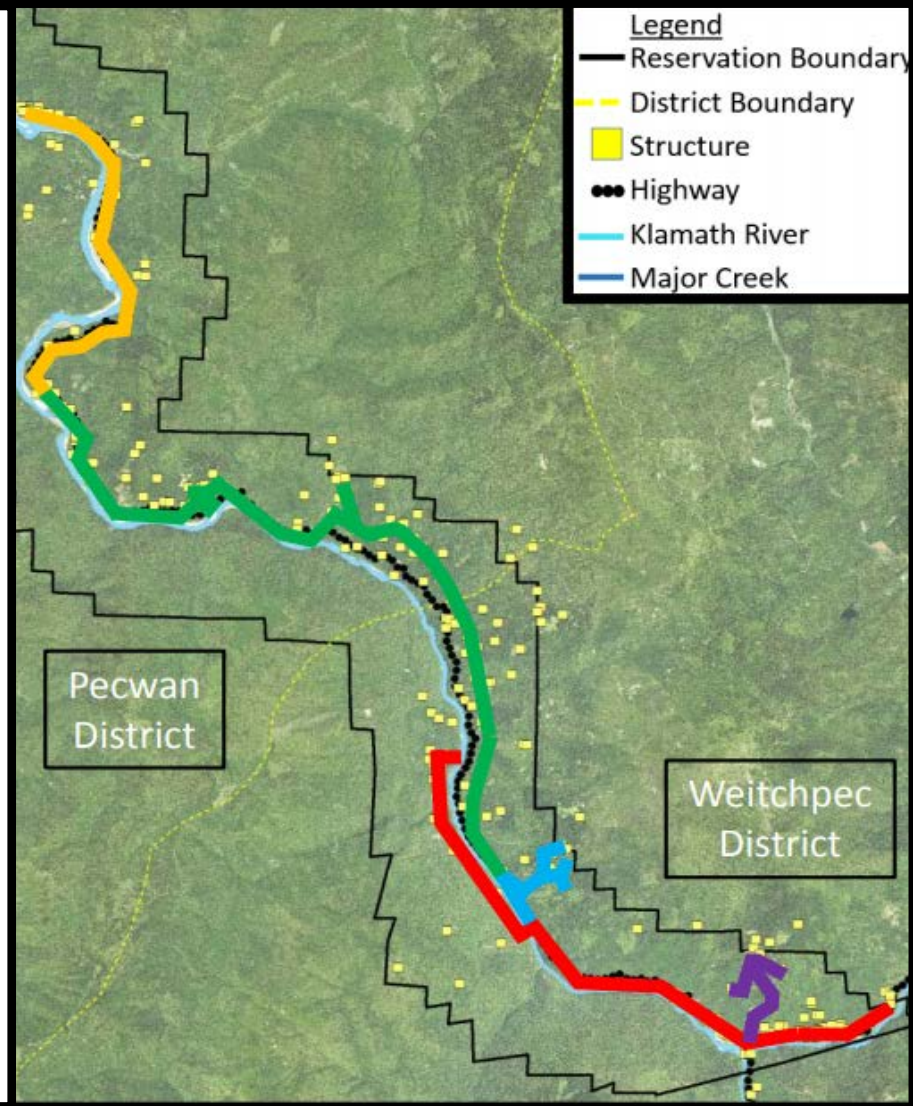


History of Electrical Grid Projects

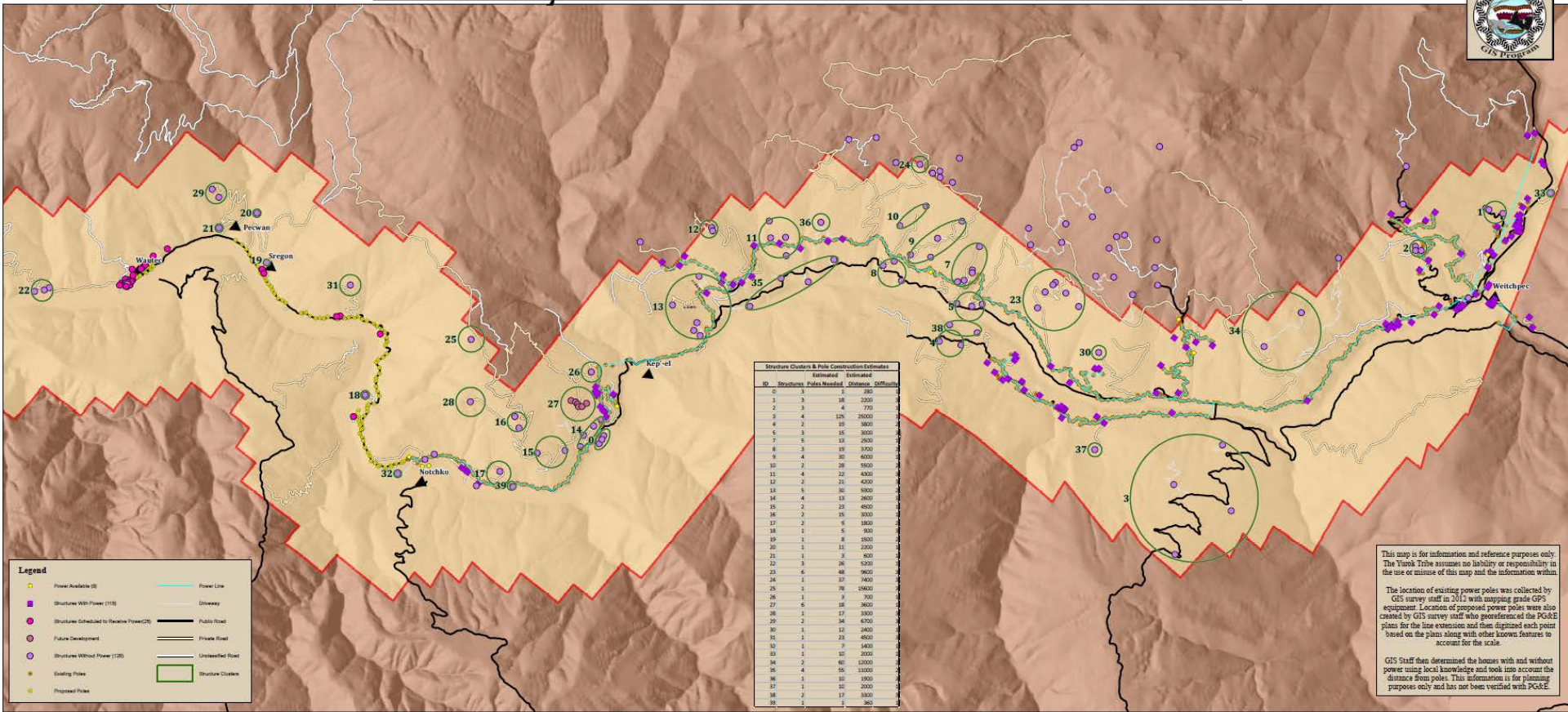


2001: Weitchpec/Tulley Creek
2003: Lake Prairie Road
2006: Mitchel Road
2007: McKinnon Hill
2010: Wautec Phase I (a)
2012: Wautec Phase I (b)
2017: Wautec Phase II

Total: \$19.2 Million; 30 Miles



Electricity Overview for the Yurok Reservation



This map is for information and reference purposes only. The Yurok Tribe assumes no liability or responsibility in the use or misuse of this map and the information within.

The location of existing power poles was collected by GIS survey staff in 2012 with mapping grade GPS equipment. Location of proposed power poles were also created by GIS survey staff who performed the PG&E plans for the line extension and then digitized each point based on the plans along with other known features to account for the scale.

GIS Staff then determined the houses with and without power using local knowledge and took into account the distance from poles. This information is for planning purposes only and has not been verified with PG&E.

Right-of-Way Challenges



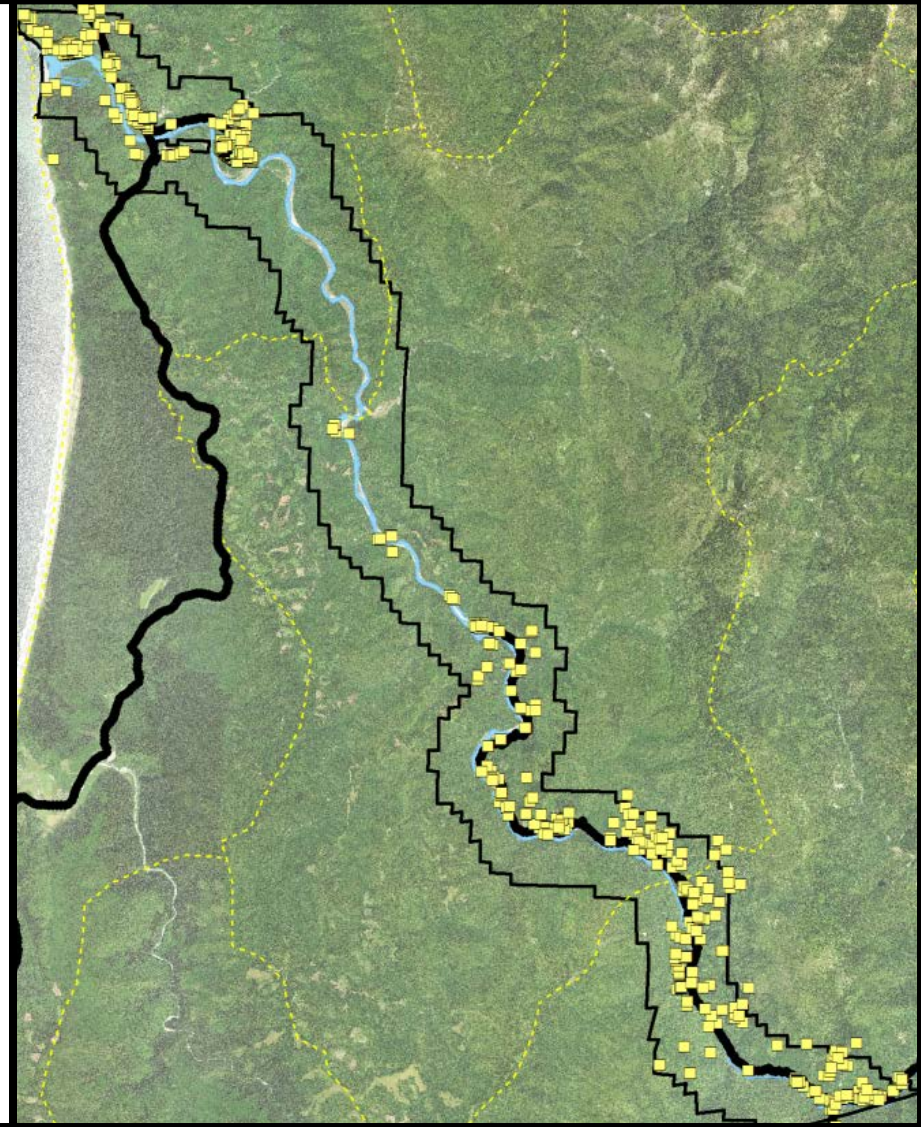
- Difficult obtaining ROW from absentee land owners
- Backlog of land probates
- Highly fractionated Indian trust allotments
- No Tribal ROW condemnation powers



Energy Challenges



- Off grid renewable energy systems provide only part-time basic energy needs
- Yurok Reservation is served by two utility providers; PG&E and Pacific Power
- Yurok Reservation is the disconnect between the two utility providers



Economic Challenges

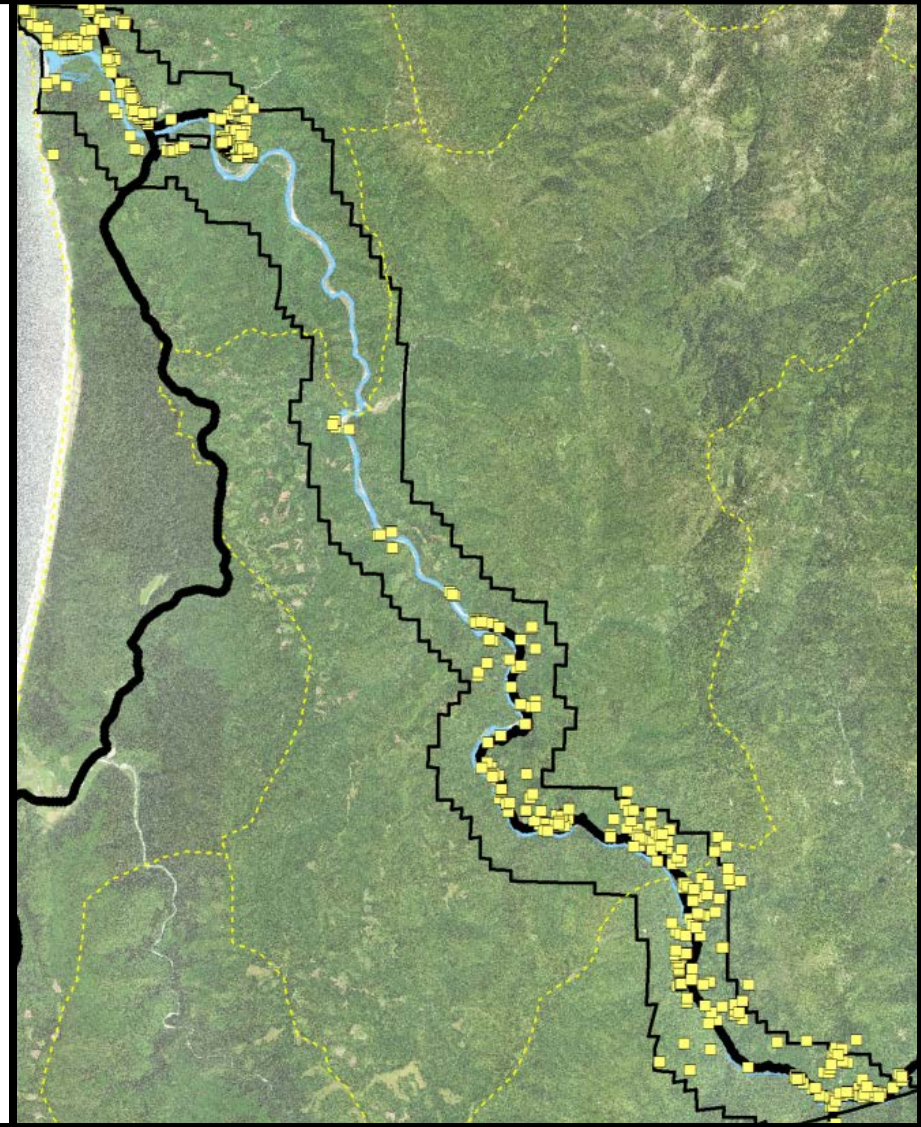


- Large percentage of reservation residents live in extreme poverty
- Energy grants require a high cost match (50%)
- Tribe has competing needs for discretionary funds and staff time
- Lack of sustainable funding for a full time Energy Planner



Energy Challenges

- More than 50% of the Yurok Reservation does not have grid electricity or telephones
- Off grid residents pay a disproportionate share of annual income for gas generators, propane appliances, wood stoves, propane, kerosene and wood fuel



Renewable Energy Challenges



- Lack of back-up grid power lines
- Seasonal & varying weather patterns (Hydro/Solar)
- Lack of land control/ownership (Hydro)
- Mountainous terrain, high density tree cover (Solar/Wind)
- Numerous cultural resources
- Salmon and steelhead habitat (Hydro)
- High debt-to-revenue ratio for capital loan payback

Opportunities



- Klamath River and it's tributaries - **Hydro**
- High temperatures – **Solar/Mini Grids**
- Tribal and local forests – **Biomass**
- Mountains, hills and coastline - **Wind**
- Developing a **Yurok Strategic Energy Action Plan**

Energy Vision



- Ensure reservation residents, tribal government and businesses have access to reliable, affordable and cost effective energy services
- Pursue a tribal energy program that promotes self-sufficiency, environmental sustainability, reliance on renewable resources, job creation and economic opportunity