



*Clean Energy and a Healthy Ocean:
Navigating the Future*

Energy from an Ocean in Motion



Our Mission

To offer financial and technical assistance to Tribes through government-to-government partnerships that:

- 1) Allow Tribal leaders to make informed decisions**
- 2) Bring renewable energy and energy efficiency options to Indian Country**
- 3) Enhance human capacity through education and training**
- 4) Improve local Tribal economies and the environment**
- 5) Make a difference in the quality of life of Native Americans.**



Turbine installed at Rosebud Sioux Reservation in South Dakota



Ute Mountain Indian Reservation solar water pumping

DOE has funded 91 Tribal energy projects totaling \$14.1 million from 2002 to 2007

Type of Project:

- First Steps – 34
- Feasibility – 51
- Development – 6



Tribes cost-shared \$4.1 million

Makah Renewable Energy Feasibility Study in Neah Bay Washington



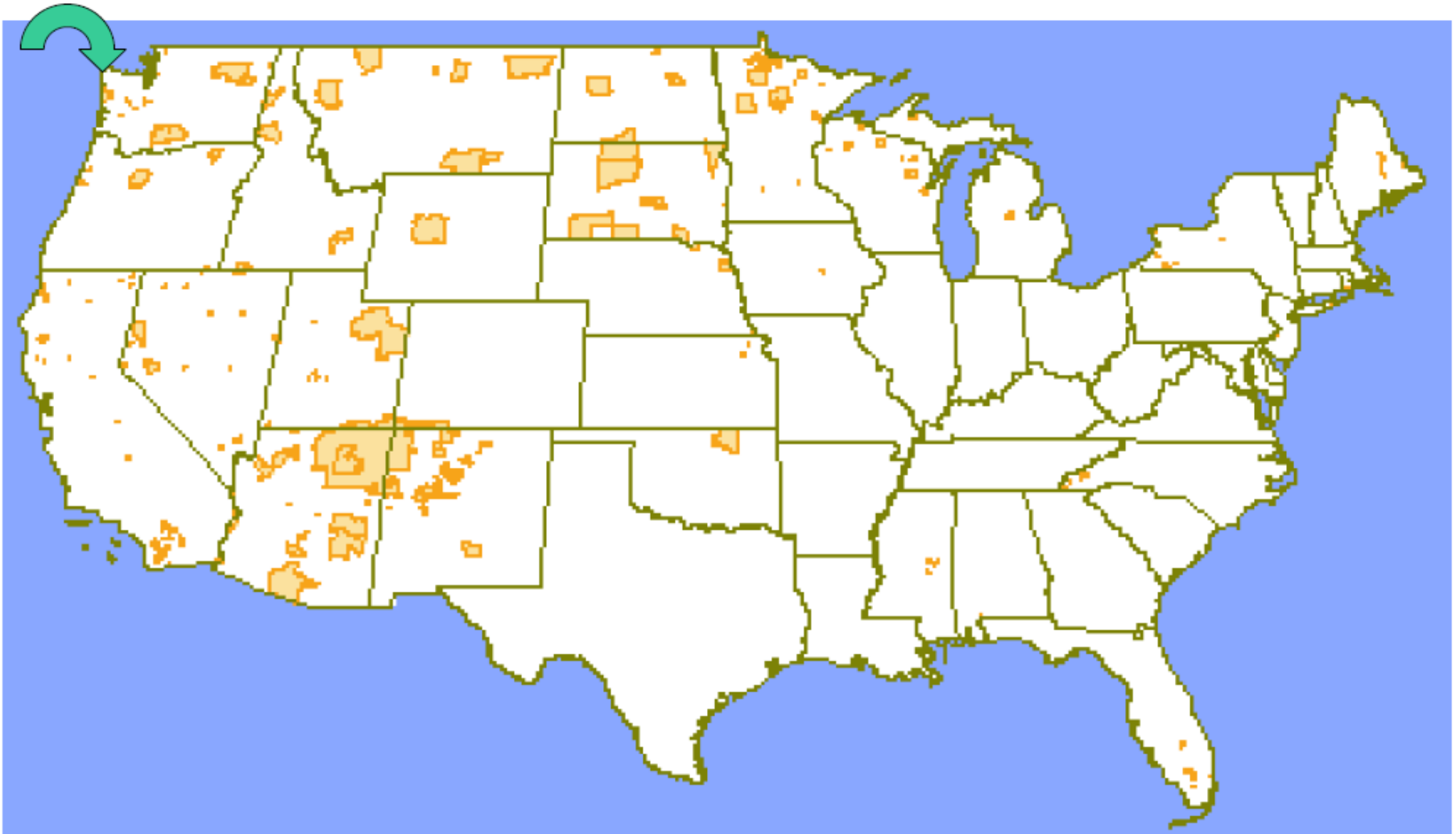


Background

- Enrollment for the Makah Tribe is 2,389
- Approximately 1,213 tribal members live on the Reservation; an additional non- Indian residential population of about 295
- Reservation is 47 square miles with elevations typically between 500 and 1,000 feet
- Four major watersheds; over 100” rainfall/year
- Closest town is 60 miles away.
- 30 MW line to reservation; frequent loss of power

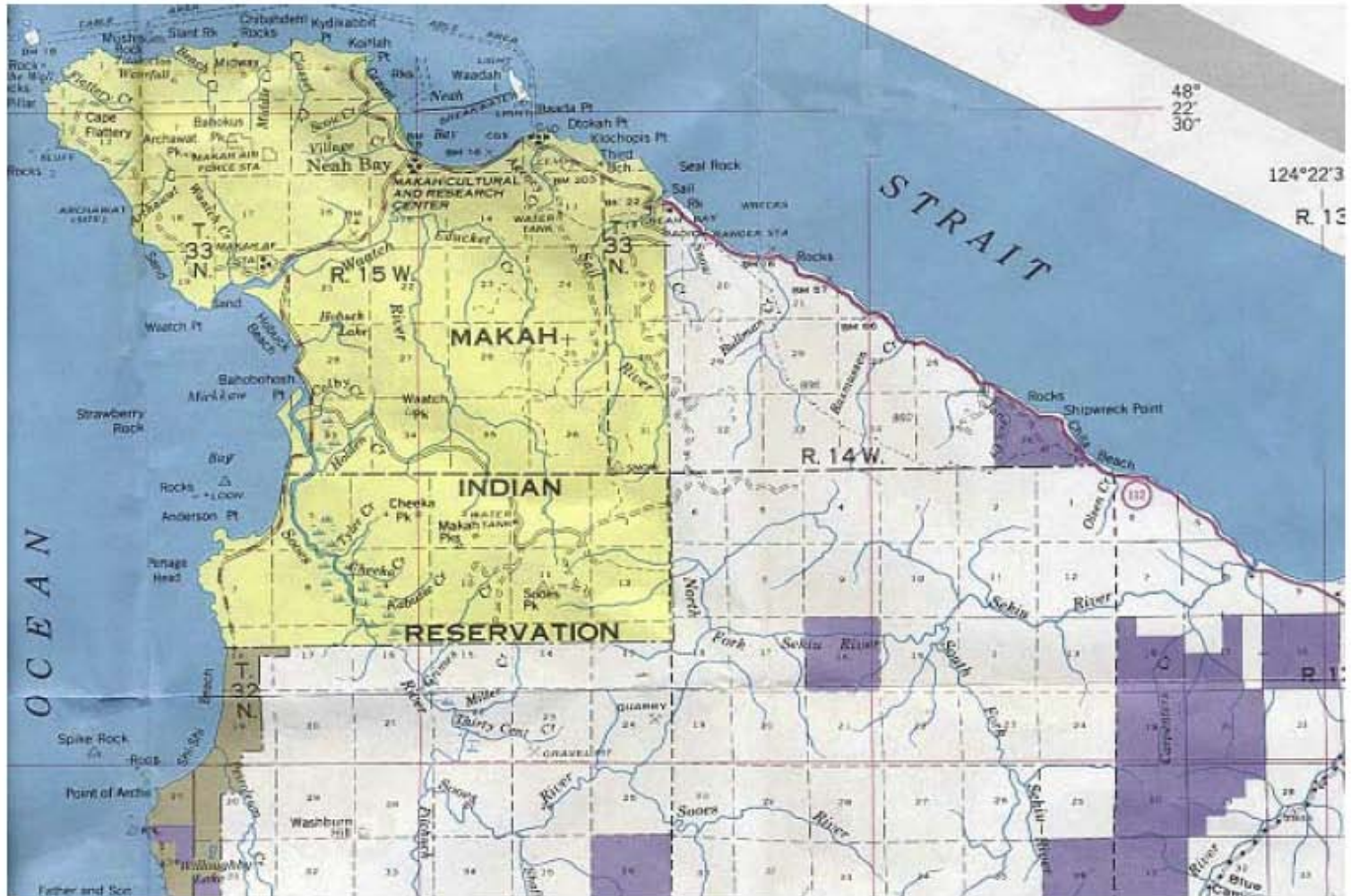


Makah Reservation





Makah Reservation



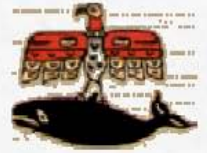




Micro/Small-Hydroelectric Power

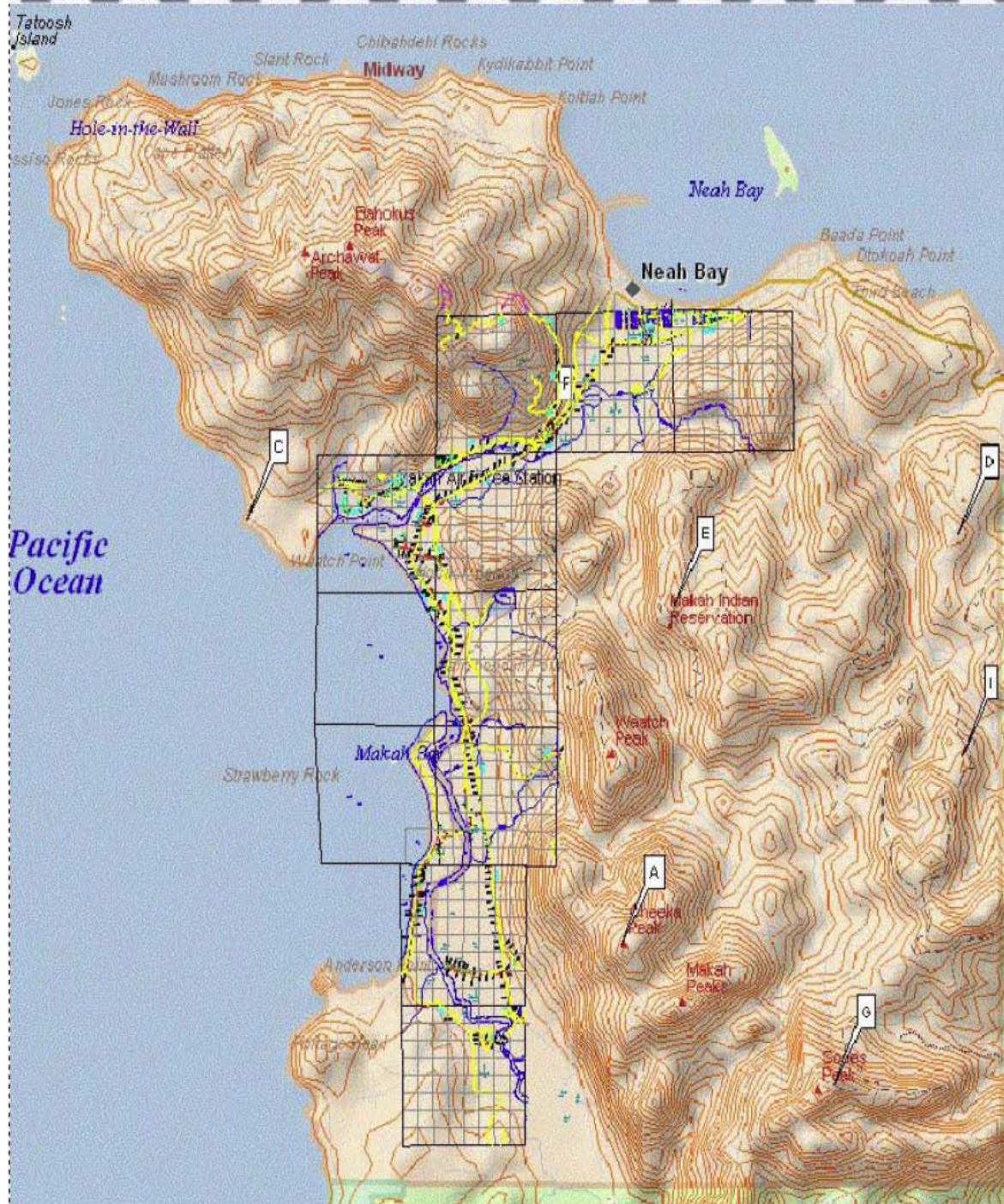
- Identify potential sites
 - Adequate stream flow
 - Adequate head
 - Proximity to existing transmission lines
 - Downstream barriers to fish migration
- Conduct on-site field analyses
- Develop/calculate critical parameters

Self Generation Options



- ❑ Summarize Wind Resource Assessment
- ❑ Potential sources of self-generation
 - ❑ Wave energy
 - ❑ Bio-gasification
 - ❑ Small wind energy Environmental Impact issues
- ❑ Environmental Impact issues





Electric Distribution System

Steps for Utility Formation

- ❑ Develop load and cost data
- ❑ Determine financial feasibility
- ❑ Negotiate distribution purchase
- ❑ Negotiate power portfolio
- ❑ Execute on minimal necessity

Tribal Utility Charter



- Makah Tribal Utility charter
- Relationship of Makah Tribal Utility to the Makah Tribe
- Business structure for operations