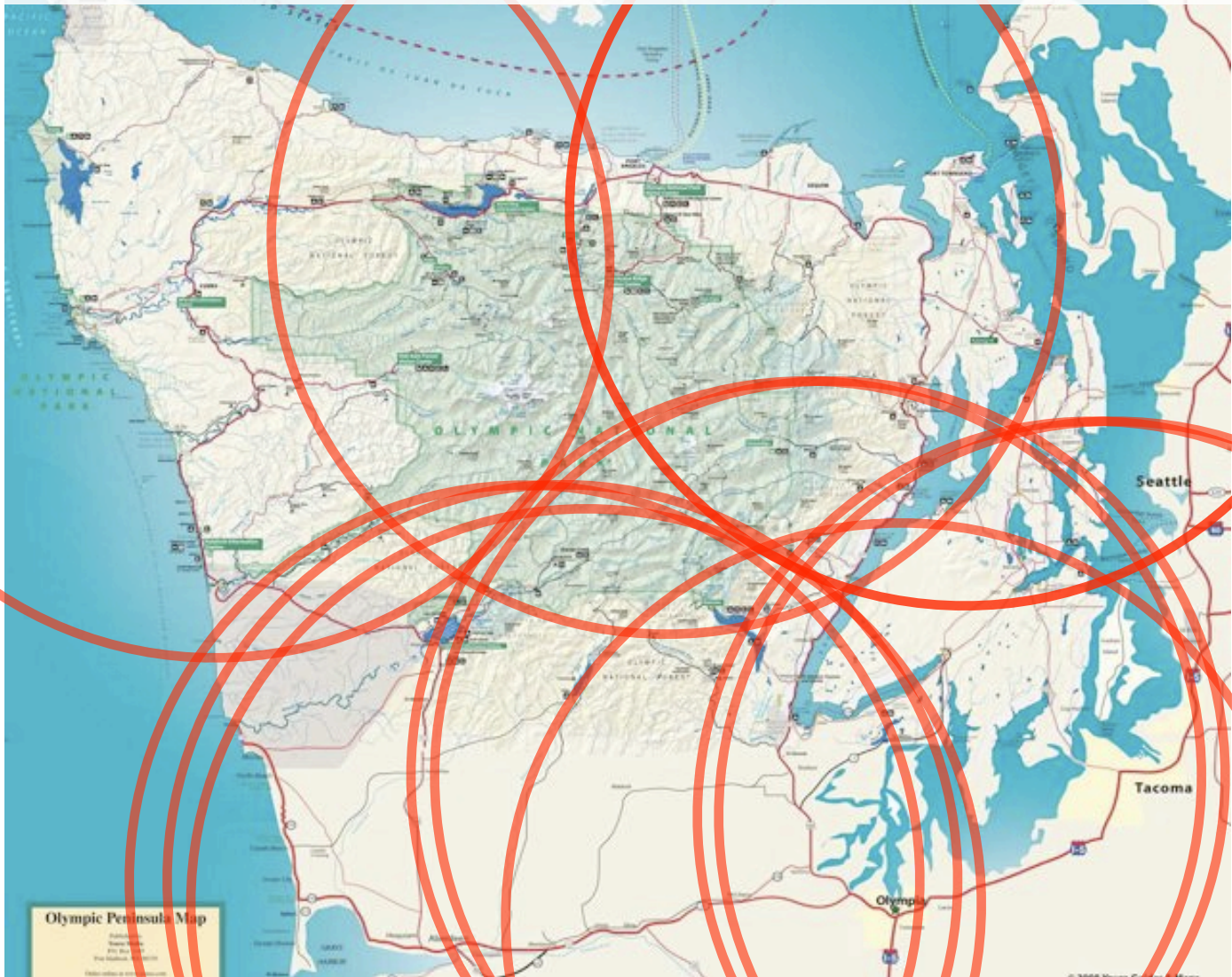


Biomass Burning a first estimate map Competition for Forest Resources



**Olympic Peninsula, WA, USA ESTIMATED TOTAL
275MW = 2,750,000 Tons forest wood/yr. = 2,750,000 Tons CO₂/yr
PLUS proportional loss in Oxygen-generating capacity of our forests**

Red circles represent 50 mile maximum "cost effective" harvest radius around all existing and proposed biomass incinerators / burners (ao Sept 2010) around the Olympic Peninsula, WA, USA.

After quickly using up "waste" wood within circle, facilities forage for other sources -- outside the area, standing wood, other materials including construction & demolition debris ("urban wood") or sludge.

On map: PT Holdings/Port Townsend, Nippon/Port Angeles, Quilayute School/Forks, Sierra Pacific/Aberdeen, Gores Group/Cosmopolis, Grays Harbor/Hoquiam, Evergreen College/Olympia, Simpson/Shelton, Adage/Shelton, City of Tacoma/Tacoma, Simpson/Tacoma

**At least 3 existing facilities already forage outside of their circle.
At least 26 similar burners exist or are proposed for WA State.**

ESTIMATED TOTAL

275MW = 2,750,000 Tons of forest wood/yr. = 2,750,000 Ton of CO2/yr

PLUS proportional loss in Oxygen-generating capacity of our forests

Woody biomass burners* represented on the first page are:

Port Townsend	PT Holdings/Port Townsend Paper	28.5 or 36 MW	8x expansion from 3.5 MW
Port Angeles	Nippon Paper	20MW	expansion
Forks	Quilayute School	?	under construction
Aberdeen	Sierra Pacific Sawmill	18MW	existing
Cosmopolis	Gores Group/Smurfit	14MW	newly repurchased, to be restarted
Hoquiam	Grays Harbor Paper	18.5MW	existing
Olympia	Evergreen College	?	feasibility study
Shelton	Simpson	31	expand from 14 MW
Shelton	Adage	60	proposed
Tacoma	Simpson	55	existing
Tacoma	City of Tacoma Steam Plant	50/13MW	existing

Megawatts are estimates based on figures found to date. If anything, they are low. Figures are variously nominal for a given burner, nominal total for the facility, or gross (total).

*biomass burners are variously known as co-generators, burners or incinerators. Each term carries particular regulatory implications, but they all do the same thing: burn biomass. They operate the same, and have the same effect on the substances being burned and environment.

Updates may be available as we get more accurate information.

Information As of September 30, 2010