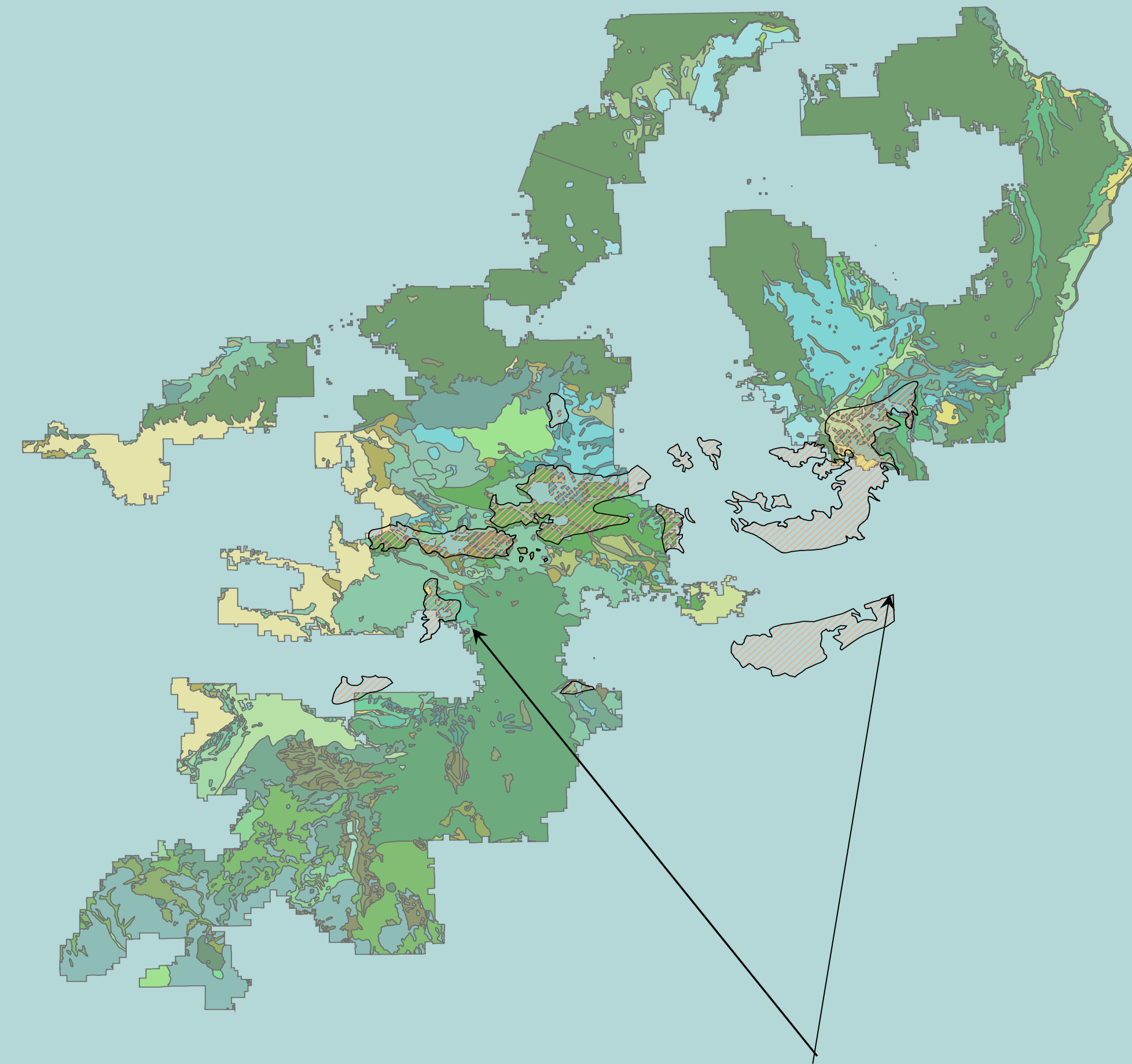


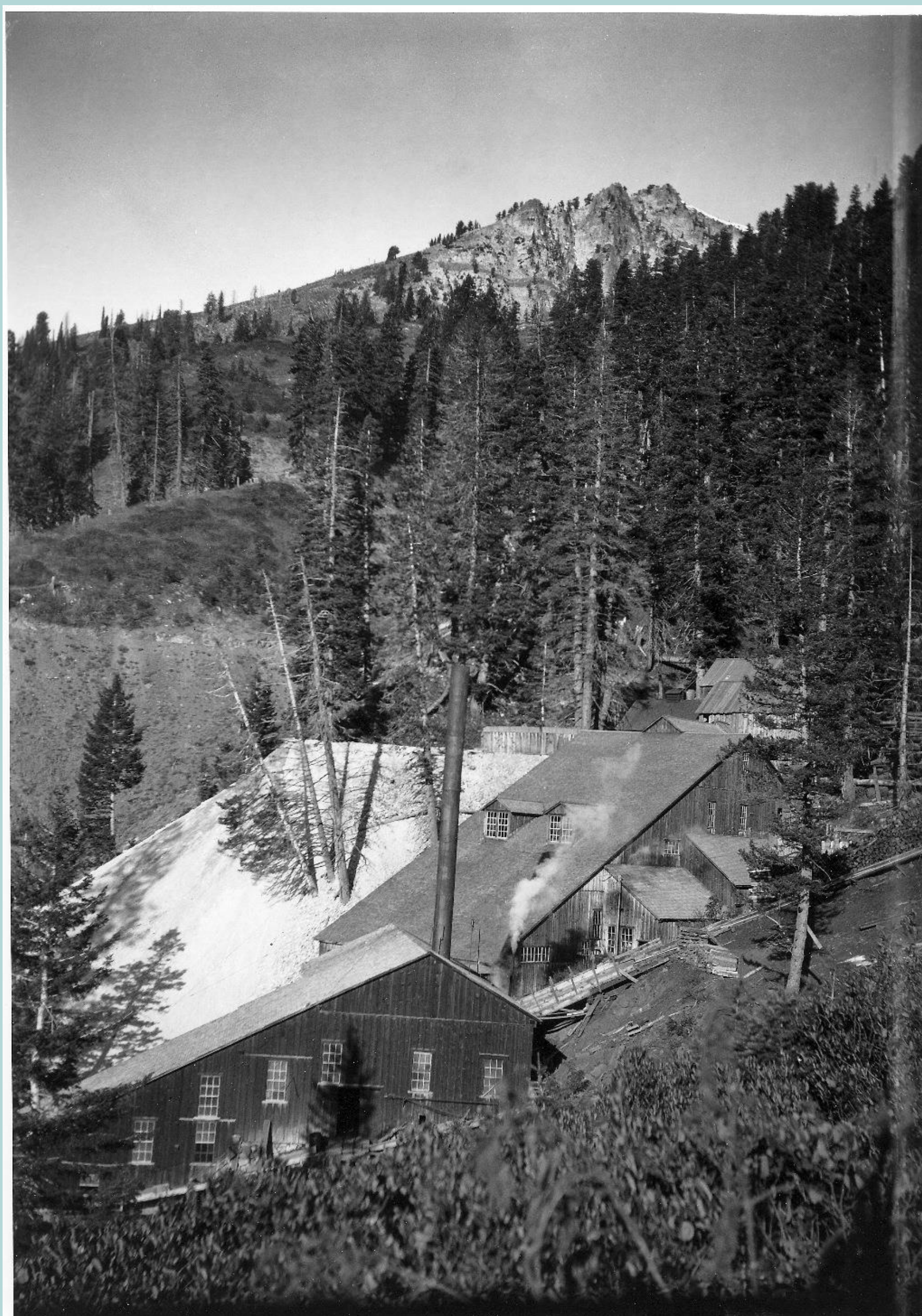


## Locatable Minerals



Areas of known gold occurrence:

- Mines in northeast Oregon have produced gold, silver, copper, platinum, chromium, lead, zinc, mercury and other metals
- The most productive mines in northeast Oregon have produced an estimated 1.5 million ounces of gold and 3 million ounces of silver (Ferns and Huber 1984)
- Gold has been produced from both lode (underground) mines and placers in the John Day, Burnt, and Powder rivers, and Pine Creek, Eagle Creek and Canyon Creek
- Locatable mineral development will continue to be authorized under the 1872 Mining Laws
- Lands may be withdrawn from future mineral entry under the Wild and Scenic Rivers Act or Wilderness Act, depending on the alternative selected and designation by Congress



## Mineral and Energy Resources Blue Mountains National Forests Plan Revision

Mineral and Energy Resources on National Forest System lands in the Blue Mountains include:

- Leasable minerals such as:
  - Oil, natural gas
  - Coal
  - Geothermal
- Saleable minerals such as:
  - Sand
  - Gravel
  - Construction stone
- Locatable Minerals such as:
  - Gold
  - Silver
  - Other precious metals (like platinum)
  - Lead and zinc
- Wind energy, if it occurs, would be regulated by special use permit

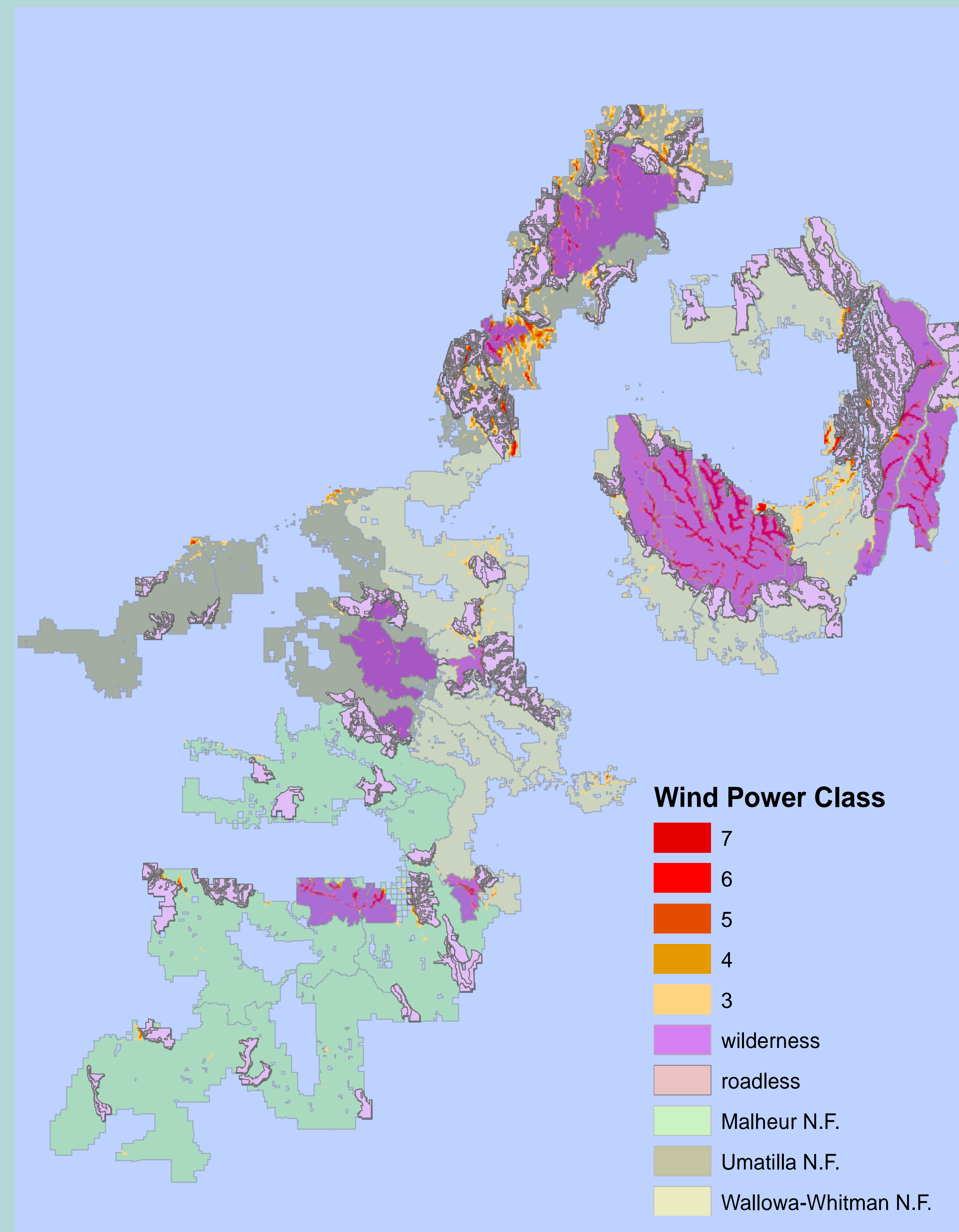


The laws and regulations that guide Forest Service management of mineral and energy resources do not change in any of the alternatives. The Forest Service has the responsibility for managing surface resources.

All national forest system (NFS) lands that have not been appropriated, withdrawn, or segregated from entry, or open to mineral entry under U.S. mining laws (Forest Service Manual 2811.1).

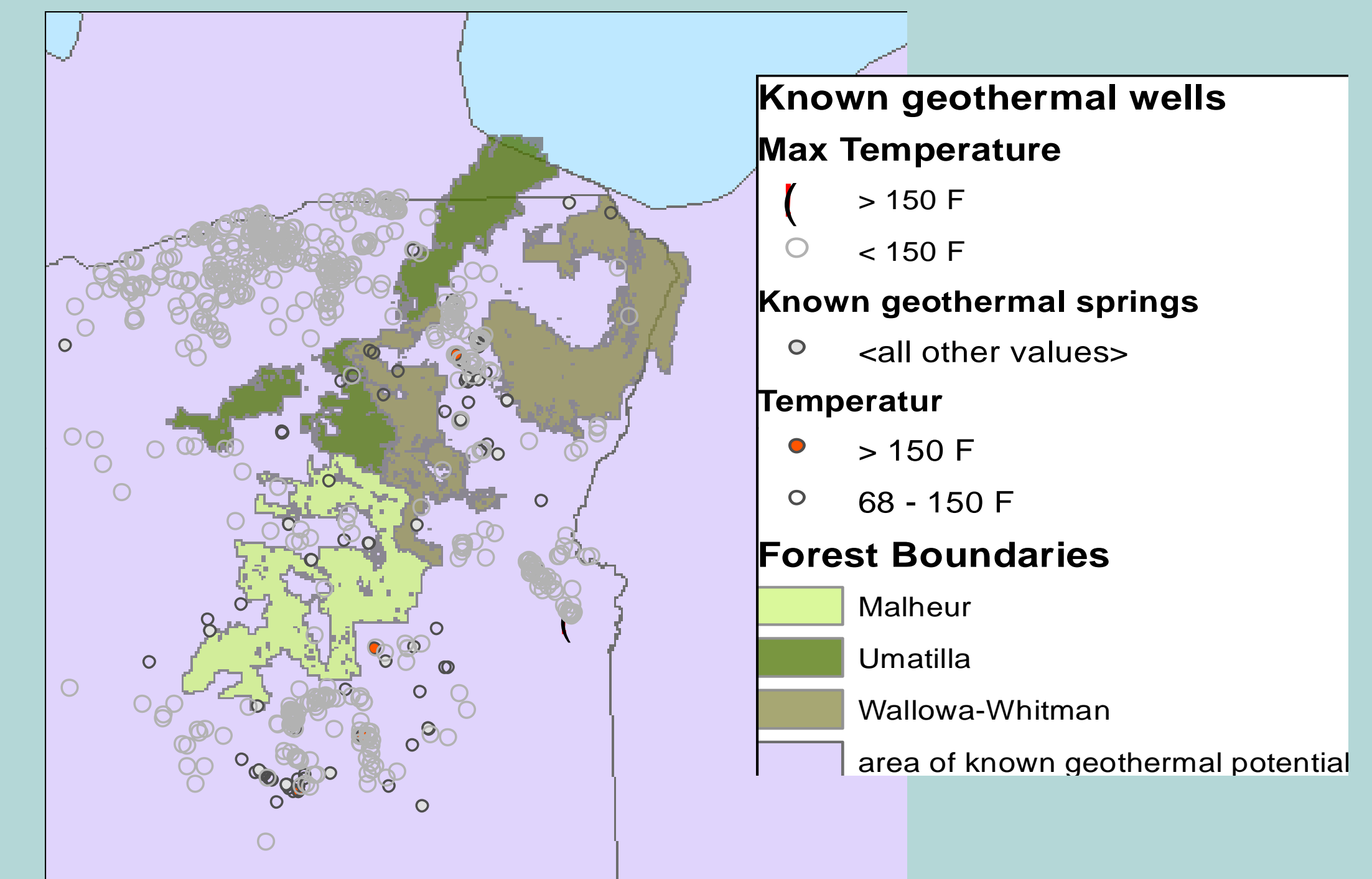
As displayed in the DEIS, the alternatives vary in the acres of recommended wilderness and miles of eligible and suitable wild and scenic rivers. If enacted by Congress, lands designated as wilderness or added to the Wild and Scenic River system would be withdrawn from future mineral entry.

## Wind Energy Potential



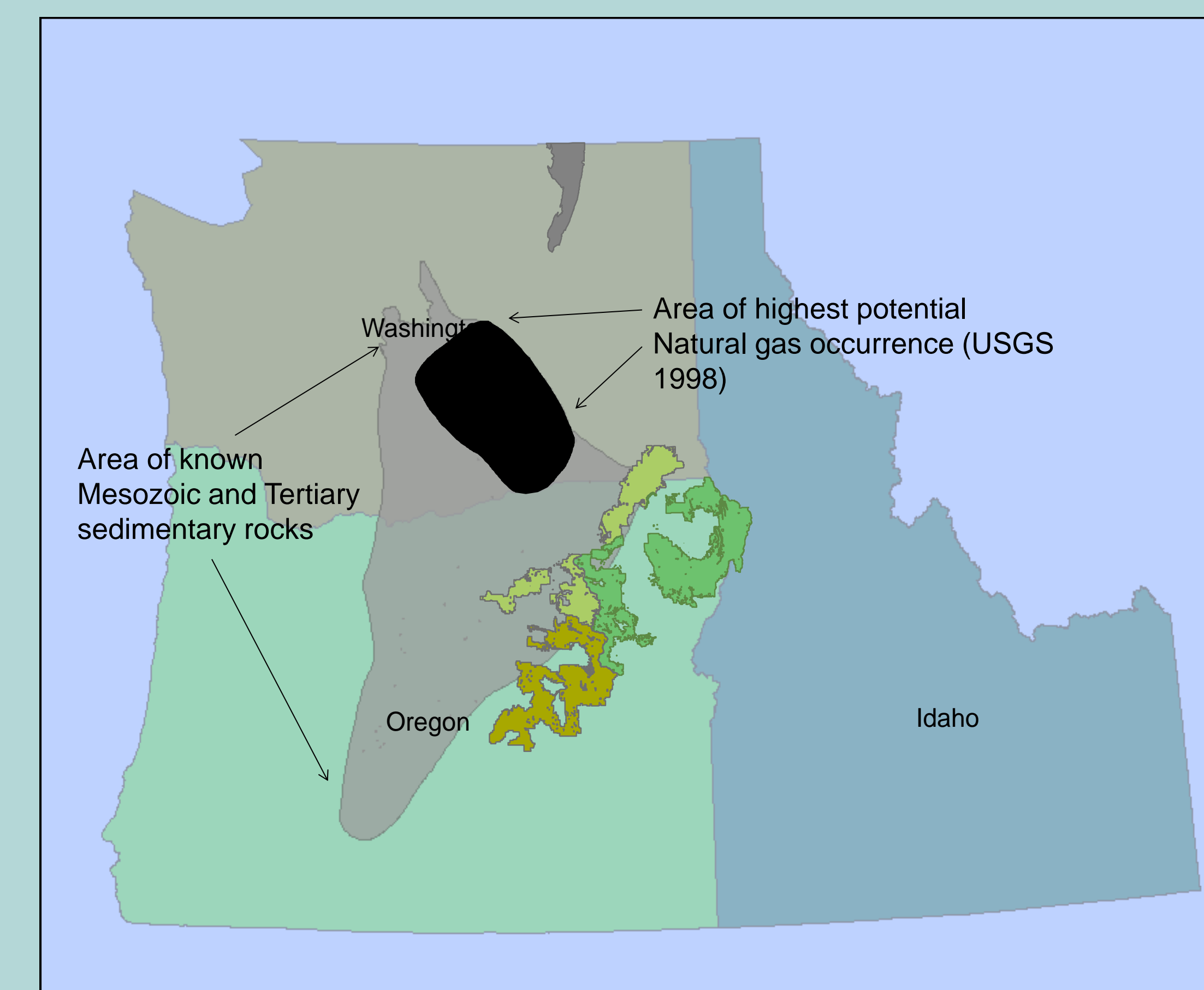
- Wind energy development on NFS lands would be regulated as a special use.
- Based on data available from the National Renewable Energy Laboratory, the total area with potential for wind energy development on NFS lands in the Blue Mountains totals slightly less than 390,000 acres.
- Potential acres by forest (from the map at left) are:
  - Malheur 39,000 acres
  - Umatilla 168,500 acres
  - Wallowa-Whitman 181,000 acres
- All but 122,000 acres (2.5%) of lands with wind development potential occur in areas where such development would be legally excluded, including inventoried roadless areas and designated wilderness areas. Actual acres will vary by alternative.
- By forest, the acres in which wind energy development is both possible and potentially suitable are:
  - Malheur 9,500 acres
  - Umatilla 79,100 acres
  - Wallowa-Whitman 33,200 acres
- Forest Service directives for evaluating proposals for wind energy development are found in Forest Service Handbook (FSH) 2709.11 Chapter 70.
- Project proponents are responsible for demonstrating the feasibility of producing wind energy
- Before a permit authorizing wind energy development is issued, an environmental analysis will be conducted to address development of the proposed site and related actions
- A monitoring plan will be developed in conjunction with the U.S. Fish and Wildlife Service to determine effects to wildlife from any site proposed for development of wind energy (FSH 2609.13 Chapter 80)

## Geothermal Energy Potential



- Potential geothermal resources occur throughout the western United States, including the Blue Mountains
- Available data for wells and geothermal springs suggests that most of the known sites are low temperature (<90°C [194° F]) and that the majority of known sites are near, but not within the national forests
- An analysis of geothermal resources on BLM and USFS lands in the western United States (USDI BLM 2008) makes all national forest system (NFS) lands in the Blue Mountains, outside of designated wilderness and inventoried roadless areas, available for lease, although no leases have been formally authorized
- The area near Vale, Oregon has the highest known potential for geothermal development in northeast Oregon
- The potential for development of geothermal resources on NFS lands in the Blue Mountains is considered low.

## Oil and Natural Gas Potential



- Natural gas is known to occur within late-Mesozoic and early Tertiary sedimentary rocks in Central Oregon and Washington that are overlain by 2.5 miles of Columbia River basalt
- Exploration wells in the Pasco Basin in the 1950s-80s showed both natural gas and natural gas liquids, but were determined to be un-economic based on prevailing natural gas prices and the high cost of drilling
- An analysis completed in 1995 identified lands available for oil and gas leasing on the Malheur National Forest and part of the Umatilla National Forest
- A more recent analysis by the USGS (2008) indicates a smaller area (cross-hatched area of map) is likely to hold 90 percent of the potential gas in the basin. This finding suggests that the potential for development on NFS lands over the next 10-15 years is low.