

**Nez Perce–Clearwater National Forests  
Forest Plan Assessment**

**10.0 Renewable and Nonrenewable Energy and  
Mineral Resources**

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## **10.0 Renewable and Nonrenewable Energy and Mineral Resources**

### **10.1 EXISTING INFORMATION**

The following agencies publish information regarding renewable and nonrenewable energy and mineral resources for the Plan area:

- U.S. Army Corps of Engineers
- U.S. Department of Energy
- U.S. Department of Interior, Bureau of Land Management
- U.S. Environmental Protection Agency
- U.S. Geological Survey
- Idaho Department of Water Resources

The following documents contain information regarding renewable and nonrenewable energy and mineral resources for the Plan area:

- Idaho Department of Environmental Quality: Clean Water Act, Idaho Section 401 Certification Guidance (IDEQ 2012)
- Idaho Department of Lands: Best Management Practices for Mining in Idaho (IDL 1992)
- Idaho Geological Survey: Geology and Gold Resources of North Central Idaho (Thomson and Ballard 1924)

The following laws and regulations pertain to renewable and nonrenewable energy and mineral resources:

- Minerals (Subpart A—Locatable Minerals, Subpart B—Leasable Minerals, Subpart C—Disposal of Mineral Materials, Subpart D—Miscellaneous Minerals Provisions, Subpart E—Oil and Gas Resources) (36 CFR 22)
- Land Uses (36 CFR 251)
- Land Withdrawals (43 CFR 2300)
- General Mining Law of 1872 (as amended)
- Mineral Leasing Act of 1920 (as amended)
- Materials Act of 1947 (as amended)
- Clean Water Act 1948 (as amended in 1972)

The following Forest Service manuals (FSMs) and regional supplements pertain to renewable and nonrenewable energy and mineral resources:

- FSM 2760-Withdrawals
- FSM 2800-Minerals and Geology
- Region 1 Supplement 28
- Region 1 Supplement 2800-94-1
- Region 1 Supplement 2800-2003-1
- Region 1 Supplement 2800-2004-2
- Region 1 Supplement 2800-2004-3

## **10.2 INFORMING THE ASSESSMENT**

### **10.2.1 *Current Condition***

Renewable energy resources include biomass, wind, solar, geothermal, and hydroelectric energy, while nonrenewable energy resources consist of oil, gas, and coal. With the exception of biomass being used as a by-product of timber operations and an occasional solar panel being used to power a remote site, no renewable or nonrenewable energy is being produced on the Nez Perce–Clearwater National Forests (Forests).

A variety of mineral deposit types and mineral resources, including gold, silver, and copper, exist within the boundaries of the Forests.

With respect to National Forest System management, mineral resources are divided into three groups: locatable minerals, leasable minerals, and salable mineral materials. The authority of the Forest Service to influence and regulate the exploration, development, and production phases of mining operations varies with each group. Therefore, the Forest Service manages mineral resource programs that are specific to each group.

#### **10.2.1.1 Locatable Minerals**

Locatable minerals are those valuable deposits subject to exploration and development under the General Mining Law of 1872 (as amended). These resources commonly include gold, silver, and copper.

The General Mining Law of 1872 grants every U.S. citizen the right to prospect and explore lands reserved from the public domain and open to mineral entry. The right of access is guaranteed and is not a Forest Service discretionary action.

By law, certain lands—such as lands withdrawn by an act of Congress (i.e., through the Wilderness Act of 1964 or the Wild and Scenic Rivers Act of 1968) or lands withdrawn by an order of the Secretary of the Interior—are withdrawn from mining claim location. These withdrawn areas are, however, subject to mining claims with valid existing rights established before the date the areas were withdrawn from mineral entry. As a consequence, some mining claims located within existing or proposed withdrawn areas could be developed in the future.

Upon discovering a valuable mineral deposit, citizens have the right to locate a mining claim and remove the mineral resources. The citizen holding a mining claim is the claimant and is responsible for initiating mining activities and investing the capital required to conduct mineral exploration, site development, mine operation, and reclamation of the site.

The Forest Service works with mining claimants to provide reasonable access to their claims, minimize adverse environmental impacts on surface resources, and ensure reasonable reclamation of lands affected by mining operations. To protect surface resources, the Forest Service reviews the mining plan of operations submitted by the claimant; discloses impacts of the proposed mining operations in a site-specific environmental document; approves only those activities that are reasonably necessary for the proposed operation; monitors operations to ensure environmental standards are met; and ensures prompt and reasonable reclamation of disturbed areas.

Across the Forests, approximately 15 approved plans of operations for various small lode and placer mining sites are underway, plus 1 approved exploration activity investigating larger deposits. Any person proposing to conduct operations that might significantly disturb surface resources must submit a Notice of Intent (NOI), if after evaluating the NOI it is determined that the operations will significantly disturb surface resources, a Plan of Operations will be required to operate. The Forest Service receives approximately 60 NOIs per year on the Forests.

#### **10.2.1.2 Leasable Minerals (Oil and Gas)**

Certain types of minerals, primarily energy resources, are not subject to mining claim location but are available for exploration and development under provisions of the Mineral Leasing Act of 1920 (as amended). Access to these types of minerals is provided through leases, permits, or licenses that include fee and/or royalty payment conditions. Federally owned leasable minerals include oil, gas, coal, geothermal resources, potassium, sodium, phosphates, oil shale, sulfur, and locatable minerals on lands that have been acquired and are no longer considered public domain lands.

The Bureau of Land Management (BLM) retains the authority to manage these minerals. The BLM is statutorily required to obtain consent from the Forest Service before issuing leases for leasable minerals on National Forest System lands.

Currently, only 1 lease has been obtained on acquired lands on the Forests, and demand is expected to remain low. Oil, gas, and coal occurrence and potential are low (NEPDG 2001) across the Forests, and geothermal resources are low as well (BLM and Forest Service 2008; Dansart et. al. 1994; Ross 1971).

By regulation (36 CFR 228.102), certain lands are legally unavailable for leasing: lands withdrawn from mineral leasing by an act of Congress or by the Secretary of the Interior; lands recommended for wilderness allocation by the Secretary of Agriculture; and lands designated by statute as wilderness study areas (unless oil and gas leasing is specifically allowed by the statute designating the study area).

#### **10.2.1.3 Mineral Materials**

Often referred to as salable minerals, or common variety minerals, mineral materials are subject to the Materials Act of 1947 (as amended). These minerals are disposed of by sale, through issuance of free-use permits, or under contracts for in-service needs. Mineral materials include petrified wood and common varieties of sand, rock, stone, cinders, gravel, pumice, clay, and other similar materials. Such common variety mineral materials include deposits that tend to be commonly available; although they have economic value, they do not have a distinct and special value. These minerals are most commonly used as building, landscaping, and construction materials.

The predominant salable material extracted on the Forests is crushed rock used for road surfacing and fill. The demand for quality rock sources often depends on where the rock is needed, within or outside of the Forests, and the need for resource protection. Rock sources of suitable quality (hardness and durability) are in adequate supply across the Forests for in-service construction uses. A small public demand exists for salable materials predominantly used for construction and landscaping purposes. Approximately 15 permits are administered annually for personal use, public works, or commercial uses on the Forests.

## **10.2.2 Trends and Drivers**

Nonrenewable energy (e.g., oil, gas, coal) development has very low potential on the Forests (NEPDG, 2001). Renewable energy such as wind and solar has not drawn much interest from developers because of its low potential on the Forests (NREL, 2005). Other renewable energy, such as hydroelectric power, has been considered, as shown by the number of power site withdrawals on many of the major rivers within the Forests. However, the trend has been to not build dams on National Forest System lands because dams can impede fish that need to move upstream for spawning and can detract from the Wild and Scenic qualities of rivers on the Forests. A few dams exist on the Forests, but they are not producing power commercially. Due to their distance from a transmission line corridor, it is highly unlikely they will ever produce power commercially.

Geothermal energy from hot springs was explored and harnessed prior to the formation of the Forest Service. Geothermal energy potential in the southern portion of the Forests exists, but the trend for its use commercially is low because of a lack of suitable sites with high-temperature geothermal that could be developed, and lack of accessibility to a power transmission corridor.

Biomass energy has the highest potential of all the renewable energies. It continues to be used and is in high demand at a personal level. It has been used for many years as a by-product of logging operations and continues to be a valuable commodity. The trend for this product is tied closely to the productivity of the logging industry; biomass energy has not shown that it can stand alone as a strictly renewable energy resource.

The trend for mineral production on the Forests is closely tied to the price of gold, which has an inverse relationship to the U.S. dollar. Although many types of minerals could be mined on the Forests, gold is the only mineral that is tied to any significant trends. However, the housing industry also impacts the amount of mineral materials sold in the higher-population centers of the Forests. As new houses are built and the need for landscaping material increases, the demand for mineral materials also increases.

## **10.2.3 Resource-Specific Information**

### **10.2.3.1 Energy and Mineral Development**

Nonrenewable energy, such as oil, gas, and coal, has a very low potential across the Forests. Renewable energies, such as solar, wind (NREL 2005), geothermal (BLM and Forest Service 2008; Dansart et. al. 1994; Ross 1971), and hydroelectric (Conner and Francfort 1998), have a low potential across the Forests.

Biomass as used for the production of commercial energy has a moderate to high potential (EPI 2012).

Mineral development for gold has a moderate potential, but all other minerals have a low potential.

### **10.2.3.2 Transmission Corridors**

The Forests have no transmission corridors, and it is highly unlikely that transmission corridors would be developed in the future. The continuous Wilderness, Wild and Scenic Rivers, roadless areas, and proposed Wilderness that runs north–south through the entire Forests makes it highly unlikely that a transmission corridor would come through the Forests



running east or west; and any proposed transmission corridors running north or south would most likely follow U.S. Highway 95.

### **10.3 INFORMATION NEEDS**

The minerals program has a need for the acreages of leasable lands, locatable lands, and lands with outstanding mineral rights. The minerals program also needs an inventory of available and potential quarries and gravel pits located on the Forests.

### **10.4 LITERATURE CITED**

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