

## 14. Legal Issues for Montana Geothermal Development

[This chapter adapted from *A Regulatory Guide to Geothermal Direct Use Development — Montana*, published by the Washington State University Extension program in 2004.]

The state of Montana does not have a unique Geothermal Resources Act, as can be found in many other western states. In Montana, specific statutes regarding geothermal resources are contained in *Title 77– State Lands, Chapter 4 – Geothermal and Hydroelectric Resources, Montana Code Annotated*. These statutes also address the leasing of state or school lands for geothermal resource development.

These statutes define “geothermal resources” in Montana as “*the natural heat energy of the earth, including the energy, in whatever form, which may be found in any position and at any depth below the surface of the earth, either present in, resulting from, created by, or which may be extracted from such natural heat and all minerals in solution or other products obtained from the material medium of any geothermal resource.*”

Montana further characterizes geothermal resources as *sui generis* (77-4-104, MCA), “*being neither a mineral resource nor a water resource, but closely related to and possibly affecting and affected by water resources in many instances.*”

Title 77, Chapter 4, section 108 of the Montana Code Annotated additionally states: “*If any geothermal development located on state land requires the utilization of water, the lessee may, at any time prior to 1 year before the expiration of his lease, make application to the board for permission to secure a water right to the land under his lease. Such application shall be in writing, show the permanency of the water supply, and the estimated cost of utilizing such water resources. If the proposed plan meets with the approval of the board, permission shall be granted to the lessee to secure the desired water right for the land. Such right shall be secured in accordance with Title 85, chapter 2, and shall be filed in the name of the state. Existing water rights purchased by the geothermal lessee shall be the property of the lessee.*”

What these statutes imply is that geothermal resources in Montana are to be regulated as water. As a result, low temperature, direct use geothermal projects, including greenhouse heating, warm water aquaculture, space heating, swimming pool use, and spas are regulated in accordance with the rules and statutes governing ground water appropriation and well drilling regulations. A developer must acquire the water resource by means of an application, permits, and license procedure.

Drilling a hot water well  
at the Montaquua Mineral  
Health Resort near Joliet,  
Montana, circa 1940.

*Photo — Author’s  
personal collection*



## 14. Legal Issues for Montana Geothermal Development – *continued*

The regulations governing Montana geothermal projects differ from conventional water development projects in that direct use projects may need to dispose of the water once it has been used for its design application. Hot water disposal is typically accomplished through direct injection of the geothermal water via an injection well, or through surface disposal to the ground or to surface waters if injection is not an option. Montana also has special reviews for surface disposal of thermal waters into blue ribbon fishing streams and rivers, where fisheries might be damaged if the river water temperature rises too high.

The Montana Department of Natural Resources and Conservation (DNRC), is the lead agency in charge of administering and enforcing the various rules and regulations governing water use in the state of Montana. The agency is responsible for issuing water rights and well construction permits.

The U.S. Environmental Protection Agency, Region 8, oversees the administration of underground fluid injection wells in Montana.

The Montana Department of Environmental Quality (DEQ), is responsible for administering surface disposal of wastewater, including geothermal fluids.

The Bureau of Land Management (BLM) manages geothermal leasing on federally-managed public lands in Montana. Obtaining a geothermal lease is the first step for a company or individual before eventually applying to develop and produce geothermal resources. Additional planning, environmental analysis, and public input must occur before drilling can begin. There are no federal geothermal leases or current activity within Montana and only one nomination for a geothermal lease has occurred on federal land in Montana over the past 20 years. BLM formed a Renewable Energy Team in late 2010 to facilitate the development of renewable energy projects on BLM-administered public lands in Montana. More information on BLM geothermal leasing policies is available at the following website: <http://www.blm.gov/mt/st/en/prog/energy/renewable.html#Geothermal>

In addition to state and federal agencies, local and county agencies may also play a role in issuing local zoning and construction permits, and should be contacted early on in the development of a geothermal heating project.

Electric generation using geothermal energy requires significantly more review and permitting under Montana and federal laws. Montana's Major Facility Siting Act was modified in 2009 to exempt geothermal power plants in Montana that are capable of producing less than 50 megawatts of energy.

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### REGULATORY CHECKLIST for DIRECT USE of GEOTHERMAL ENERGY in MONTANA

- ✓ Gain access to lands either through lease or direct ownership.
  - ✓ Contact local and/or county agencies to ensure compliance with local land use laws including building permits and zoning restrictions.
  - ✓ Secure water rights. (**Montana DNRC**)
  - ✓ Obtain well construction permit/develop production well or hot spring. (**Montana DNRC**)
  - ✓ Determine fluid disposal plan and obtain permits for either underground injection or surface disposal. ( **EPA, Montana DEQ**)
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  - ✓ Obtain relevant permits if developing an aquaculture project (**Montana Department of Fish, Wildlife & Parks**)
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