FEDERAL ENERGY REGULATORY COMMISSION Washington, DC 20426 August 22, 2014

OFFICE OF ENERGY PROJECTS

Project No. 13642-001 – Montana Gordon Butte Pumped Storage Project GB Energy Park LLC

Subject: Scoping Document 2 for the Gordon Butte Pumped Storage Project, P-13642.

To the Party Addressed:

The Federal Energy Regulatory Commission (Commission) is conducting National Environmental Policy Act (NEPA) scoping for an anticipated original license application to be submitted by GB Energy Park LLC (GB Energy) for the Gordon Butte Pumped Storage Project (Gordon Butte Project or project) (FERC No. 13642). The project would be located in Meagher County, approximately 3 miles west of Martinsdale, Montana. The project would not occupy any federal lands.

Pursuant to NEPA of 1969, as amended, Commission staff intends to prepare an Environmental Assessment (EA), which will be used by the Commission to determine whether, and under what conditions, to issue an original license for the project. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed, and that the EA is thorough and balanced. Although our current intent is to prepare a draft and final EA, there is a possibility that an Environmental Impact Statement (EIS) will be required. Nevertheless, this meeting will satisfy the NEPA scoping requirements, irrespective of whether an EA or EIS is issued by the Commission.

Our preliminary review of the environmental issues to be addressed in our EA was contained in Scoping Document 1 (SD1), which was issued on May 21, 2014. We requested comments on SD1 and held scoping meetings on June 25, 2014, to hear the views of all interested entities on the scope of issues to be included in the EA. Based on the verbal comments we received at the scoping meetings, and written comments we received throughout the scoping process, we prepared the enclosed Scoping Document 2 (SD2). We prepared SD2 to provide information on the proposed action and alternatives,

2

the environmental analysis process we will follow to prepare the EA, and a revised list of issues to be addressed in the EA.

We appreciate the participation of governmental agencies, non-governmental organizations, Indian tribes, and the general public in the scoping process. Key changes from SD1 to SD2 are identified in bold, italicized type. SD2 is being distributed to all entities on the Commission's mailing list for this project. SD2 can also be accessed online at: http://www.ferc.gov/docs-filing/elibrary.

The enclosed SD2 supersedes the May 21, 2014, SD1. SD2 is issued for informational use by all interested entities; no response is required. Please direct any questions about the scoping process to Michael Tust at (202) 502-6077 or <u>michael.tust@ferc.gov</u>. Additional information about the Commission's licensing process and the Gordon Butte Pumped Storage Project may be obtained from our website, <u>www.ferc.gov</u>.

Enclosure: Scoping Document 2

cc: Mailing List Public Files

SCOPING DOCUMENT 2

GORDON BUTTE PUMPED STORAGE PROJECT

MONTANA

PROJECT NO. 13642-001

Federal Energy Regulatory Commission Office of Energy Projects Division of Hydropower Licensing Washington, DC

August 2014

TABLE OF CONTENTS

1.0 INTRODUCTION	1
2.0 SCOPING	3
2.1 PURPOSES OF SCOPING	3
2.2 COMMENTS AND SCOPING MEETINGS	3
2.2.1 Issues Raised During Scoping	4
3.0 PROPOSED ACTION AND ALTERNATIVES	12
3.1 NO-ACTION ALTERNATIVE	12
3.2 APPLICANT'S PROPOSAL	12
3.2.1 Proposed Project Facilities	12
3.2.2 Proposed Project Operation	13
3.2.3 Proposed Environmental Measures	13
3.3 ALTERNATIVES TO THE PROPOSED ACTION	15
4.0 SCOPE OF CUMULATIVE EFFECTS AND SITE-SPECIFIC RESOURCE	
ISSUES	15
4.1 CUMULATIVE EFFECTS	15
4.1.1 Resources That Could Be Cumulatively Affected	15
4.1.2 Geographic Scope	
4.1.3 Temporal Scope	16
4.2 RESOURCE ISSUES	16
4.2.1 Geologic and Soil Resources	16
4.2.2 Aquatic Resources	17
4.2.3 Terrestrial Resources	17
4.2.4 Threatened and Endangered Species	18
4.2.5 Recreation and Land Use	18
4.2.6 Cultural Resources	18
4.2.7 Aesthetic Resources	18
4.2.8 Socioeconomics	18
4.2.9 Air Quality	19
5.0 PROPOSED STUDIES	19
6.0 EA PREPARATION SCHEDULE	21
7.0 PROPOSED EA OUTLINE	22

8.0	COMPREHENSIVE PLANS	24
9.0	MAILING LIST	25

LIST OF FIGURES

Figure 1. Location of the Gordon Butte Project (Source: Pre-Applicati	on Document and
staff)	2
Figure 2. Proposed project facilities for the Gordon Butte Project (Sour	rce: Pre-
application document and staff)	11

SCOPING DOCUMENT 2

Gordon Butte Pumped Storage Project, No. 13642-001

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),¹ may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On April 30, 2013, GB Energy Park LLC (GB Energy) filed a Pre-Application Document (PAD) and Notice of Intent (NOI) with the Commission to seek an original license for the construction and operation of the Gordon Butte Pumped Storage Project (Gordon Butte Project or project). In the PAD, GB Energy indicated it intends to file a final license application on September 20, 2015. GB Energy is using the Commission's Traditional Licensing Process to prepare the license application.

The project would be located in Meagher County, approximately 3 miles west of Martinsdale, Montana (Figure 1). It would not occupy any federal lands. The project would be operated as a closed-loop pumped storage system, cycling water between two newly constructed reservoirs, with an initial fill and periodic maintenance fills from an existing irrigation diversion on Cottonwood Creek. The project would have an annual energy production of 1,300 gigawatt-hours (GWh). A detailed description of the project is provided in section 3.0.

The National Environmental Policy Act (NEPA) of 1969,² the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of licensing the project as proposed, and also consider reasonable alternatives to the applicant's proposed action. At this time, we intend to prepare an environmental assessment (EA) that describes and evaluates the probable effects, including an assessment of the site-specific and cumulative effects, if any, of the proposed action and alternatives. The EA preparation will be supported by a scoping process to ensure identification and analysis of all pertinent issues. Although our current intent is to prepare a draft and final EA, there is a possibility that an Environmental Impact Statement (EIS) will be required. Nevertheless, this meeting will satisfy the NEPA scoping requirements, irrespective of whether an EA or EIS is issued by the Commission.

¹16 U.S.C. § 791(a)-825(r).

² National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370(f) (2012).



Figure 1. Location of the Gordon Butte Project (Source: Pre-Application Document and staff).

2.0 SCOPING

This Scoping Document 2 (SD2) is intended to advise all participants as to the proposed scope of the EA. This document contains: (1) a description of the scoping process and schedule for the development of the EA; (2) a description of the proposed action and alternatives; (3) a listing of environmental issues to be analyzed in the EA; (4) a proposed EA outline; and (5) a list of comprehensive plans that are applicable to the project.

2.1 PURPOSES OF SCOPING

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. According to NEPA, the process should be conducted early in the planning stage of the project. The purposes of the scoping process are as follows:

- invite participation of federal, state and local resource agencies, Indian tribes, non-governmental organizations (NGOs), and the public to identify significant environmental and socioeconomic issues related to the proposed project;
- determine the resource issues, depth of analysis, and significance of issues to be addressed in the EA;
- identify how the project would or would not contribute to cumulative effects in the project area;
- identify reasonable alternatives to the proposed action that should be evaluated in the EA;
- solicit, from participants, available information on the resources at issue; and
- determine the resource areas and potential issues that do not require detailed analysis during review of the project.

2.2 COMMENTS AND SCOPING MEETINGS

Commission staff issued Scoping Document 1 (SD1) on May 21, 2014. On June 25, 2014, staff conducted a daytime scoping meeting in Helena, Montana, and an evening scoping meeting in Martinsdale, Montana. Notices of the meetings were published in the Federal Register. A court reporter recorded and transcribed both of the scoping meetings.

The Commission received comments on staff's SD1 and during the scoping meetings. Written comments were also received from the following agencies and entities:

COMMENTING ENTITY	FILING DATE
John E. Walsh, U.S. Senate	June 17, 2014
Montana Governor's Office of Economic Development	June 26, 2014
Errol T. Galt	July 7, 2014
The Commissioners of Meagher County, Montana	July 16, 2014
Kerry LaDuke	July 16, 2014
Sharon LaDuke	July 18, 2014
Montana Department of Fish, Wildlife, and Parks	•
(Montana DFWP)	July 21, 2014
Montana Department of Natural Resources and	•
Conservation (Montana DNRC)	July 21, 2014
GB Energy Park LLC (GB Energy)	July 25, 2014

Key changes to SD1 are identified in bold, italic type. Note that the primary purpose of SD2 is to identify issues to be analyzed in the EA, not to identify all recommended and/or potential protection, mitigation, and enhancement (PM&E) measures. All proposed and recommended PM&E measures will be analyzed in the EA.

2.2.1 Issues Raised During Scoping

<u>Proposed Action and Alternatives</u>

Comment: GB Energy stated that the existing windfarm access road, irrigation ditch, and fish screen are no longer proposed project facilities.

GB Energy clarified that the road currently provides access to the windfarm atop Gordon Butte. The windfarm operator, 71 Ranch, LP (landowner), and GB Energy would jointly share the maintenance responsibilities of this access road. Because this road would be used and maintained jointly, GB Energy does not intend to include the road within the project boundary.

With respect to the ditch, GB Energy explained that the irrigation ditch would be replaced with an approximately 3-foot-diameter pipeline that would terminate at the lower reservoir. The pipeline would include a hand-operated valve to regulate the flow of water into the lower reservoir via a gravity feed. The pipeline would be installed, operated, and maintained by 71 Ranch, LP. 71 Ranch, LP would also install, operate, and maintain the proposed fish screen. Therefore, the pipeline and the fish screen are not proposed as project facilities.

Response: We have revised sections 3.2.1 and 3.2.2 to include these proposed operational and design changes.³

Comment: Peter Tolivaisa suggested that GB Energy move the lower reservoir site south to divert flows from the Musselshell River or connect to the Martinsdale reservoir as alternatives to obtaining water for the project.

Response: In addressing whether a thorough discussion and evaluation of moving the lower reservoir site south to draw water from the Musselshell River or obtaining water from Martinsdale reservoir as alternatives is warranted in an EA, Commission staff evaluates different factors relating to the adverse and beneficial effects on a variety of resources and issues (see Interagency Task Force on NEPA, 2001). Most significantly, staff evaluates whether stakeholders have recommended that these alternatives be evaluated in the EA and have outlined the expected benefits that these alternatives might provide. No entity has recommended that these alternatives be evaluated in the EA or provided any environmental rationale for including them as alternatives. Therefore, based on the information provided thus far, we conclude that moving the lower reservoir site south to connect with the Musselshell River or obtaining water from Martinsdale reservoir are not reasonable alternatives that need to be evaluated throughout the NEPA process. Excluding these alternatives in the scoping document and EA does not preclude the Commission from denying a license for the project. Staff will reevaluate the merits of a Musselshell River alternative and a Martinsdale reservoir alternative, as appropriate, as new information is developed throughout the licensing process.

Cumulative Effects

Comment: Becky Phillips commented that there are several ranches downstream of Cottonwood Creek that are adversely affected by the existing

³ Per section 3 of the Federal Power Act, 16 U.S.C § 796 (2012), the Commission defines a project as a unit of development that would consist of all features, lands, and rights "necessary or appropriate in the maintenance and operation of such unit." Commission staff's initial assessment suggests that the 3.7 mile segment of the existing windfarm access road is a project feature because it is necessary to provide access to the project's upper reservoir. At this time, it is unclear if the fish screen and irrigation pipeline would be necessary as project features.

Cottonwood Creek diversion and any additional effects to these ranches that could result from the proposed project should be evaluated in the EA. She answered "correct" when asked to clarify if she was talking about a geographic area of analysis that includes the existing diversion site down to the Musselshell River.

Response: We have revised section 4.1.1 and section 4.1.2 to include water resources as a cumulatively affected issue. Our selected geographic scope includes the portion of the upper Musselshell River basin from the existing diversion on Cottonwood Creek down to Dead Man's Basin diversion dam on the Musselshell River.

Geology and Soils

Comment: Peter Tolivaisa expressed concern about potential impacts on soil resources from construction spoil disposal.

Response: Because of the large amount of earthwork necessary for project construction, we have revised section 4.2.1 to include the effects of construction spoils on soil resources.

Comment: Debora Murphy expressed concern about recent seismic activity in the project vicinity.

Response: We have revised section 4.2.1 to include the effects of seismic activity on soil and geologic resources in the project vicinity.

Aquatic Resources

Comment: Peter Tolivaisa expressed concern about whether water would flow down Cottonwood Creek if water is diverted for the project.

Response: We have revised section 4.2.2 to include effects of project operation on stream flows in Cottonwood Creek.

Comment: Peter Tolivaisa expressed concerns about impacts to his domestic water uses.

Response: The SD1 identified the effects of the initial fill and annual make-up fills on surface water uses in the basin. However, we have revised section 4.2.2 to include effects of project construction and operation on surface water uses in the basin.

Comment: Peter Tolivaisa asked whether fish would be able to make it down Cottonwood Creek.

Montana DFWP expressed concern about the fate of fish that enter the diversion, including the ability of fish to re-enter Cottonwood Creek.

Response: The SD1 already identified the effects of project construction and operation on fisheries in project waters and Cottonwood Creek.

Comment: Montana DFWP requested that its instream flow water rights of 16 cubic feet per second (cfs) at or near the mouth of Cottonwood Creek, 30 cfs at the South Fork of the Musselshell River below the Martinsdale reservoir diversion dam, and 80 cfs in the Musselshell River below Dead Man's Basin diversion dam be met any time the project diverts water.

Response: We have revised section 4.2.2 to include effects of project operation on stream flows in Cottonwood Creek. We have also revised section 4.1.1 and section 4.1.2 to include water resources as a cumulatively affected issue. Our selected geographic scope includes the portion of the upper Musselshell River basin from the existing diversion on Cottonwood Creek down to Dead Man's Basin diversion dam on the Musselshell River.

Comment: Richard McCollom expressed concern about project construction activities disturbing the aquifer beneath Gordon Butte. His concern is that disturbing the aquifer could potentially reduce the town's water supply, which comes from springs located in the project vicinity.

Debora Murphy also requested that effects to the town's water supply be evaluated.

Response: We have revised section 4.2.2 to include effects of project construction on groundwater resources including springs in the project vicinity that supply water for public use.

Comment: Peter Tolivaisa expressed concern over the effects of windblown dust settling into Martinsdale reservoir.

Response: We have revised section 4.2.2 to include effects of windblown dust generated from project construction activities on the Martinsdale reservoir.

Terrestrial Resources

Comment: Montana DFWP recommended vehicle/human traffic on top of the Butte during construction and operation should be minimized during winter to reduce potential negative impacts on wintering mule deer.

Response: We have revised section 4.2.3 to include effects of project-related vehicle and foot traffic on mule deer.

Comment: Montana DFWP expressed concern about waterfowl and other birds that migrate at night being entrained during project operation when water is moved from one reservoir to the other.

Response: We added this issue to the SD2.

Comment: Richard McCollom commented that swift fox, elk, and moose occur in the project vicinity.

Peter Tolivaisa also said that he has seen moose on his property near the proposed project site.

Response: We have revised section 4.2.3 to include effects on these species.

Comment: Peter Tolivaisa asked about the potential for effects on wildlife from replacing the existing irrigation ditch with a pipe. His concern is the water would not be accessible to wildlife as a drinking source. Peter Tolivaisa also expressed concern that replacing the ditch with a pipe could increase the numbers of rattlesnakes on his property.

K.G.H. Nicholes expressed concern that populations of song birds and amphibians (i.e., tiger salamanders and frogs) in the area are decreasing and that removing the irrigation ditch would affect habitat for these species.

Response: We have revised section 4.2.3 to include effects on these species.

Threatened and Endangered Species

Comment: Richard McCollom commented that the North American wolverine occurs in the project vicinity.

Response: The SD1 already identified effects of project construction and operation on the North American wolverine. However, on August 13, 2014, the U.S. Fish and Wildlife Service withdrew its proposal to list the North American wolverine as a threatened species under the Endangered Species Act. As a result of this change in status, we moved the text describing project effects on the North America wolverine from section 4.2.4 Threatened and Endangered Species to section 4.2.3 Terrestrial Resources.

Recreation and Land Use Resources

Comment: Peter Tolivaisa asked whether hunting would continue to be allowed on project land that would be leased from 71 Ranch, LP. He is concerned about project impacts on hunting opportunities in the project vicinity, not only from restricted access to hunting areas but also from removal of a water source for game by replacing the existing irrigation canal with a pipe.

Richard McCollom also expressed concern about project effects on moose and elk hunting.

Response: We have revised SD2 to include this issue.

Cultural Resources

Comment: K.G.H Nicholes indicated that there are significant archeological sites in the nearby Castle Mountains, including pictographs. She inquired as to whether the project site has been checked for significant archeological sites.

Response: The SD1 already identified effects of project construction and operation on historic, archeological, and traditional resources that may be eligible for inclusion in the National Register of Historic Places.

Aesthetic Resources

Comment: Peter Tolivaisa asked about sight lines and whether the lower reservoir would be visible from the highway.

Karen Land asked about whether the fencing surrounding the top of the reservoirs would be visible.

Response: The SD1 already identified effects of project construction and operation on aesthetic resources, including views, in the project vicinity.

Comment: K.G.H. Nicholes asked about noise and whether people would hear the pumps associated with the project.

Response: The SD1 already identified effects of noise from project construction, operation, and maintenance on recreational and residential use in the project vicinity.

Socioeconomic Resources

Comment: Peter Tolivaisa questioned how construction workers would be able to get gas or food because there are no gas stations or grocery stores in Martinsdale and the nearest towns with these amenities are at least 30 miles away. He also asked whether there would be improvements made to Martinsdale to accommodate construction worker needs and whether these services would be made available to the local population.

Richard McCollom asked where workers would be housed during the construction period.

Response: We have added these issues to the SD2.

Comment: Herb Townsend, Meagher County Commissioner, asked how much tax revenue would be generated by the project.

Response: We have added this issue to the SD2.

Air Quality

Karen Land expressed concern about the effects of construction activities including windblown dust and vehicle emissions on air quality.

Response: We have revised section 4.2.9 to include effects of project construction activities including windblown dust and vehicle emissions on air quality.



Figure 2. Proposed project facilities for the Gordon Butte Project (Source: Preapplication document and staff)

3.0 PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA, the environmental analysis will consider the following alternatives, at a minimum: (1) the no-action alternative, (2) the applicant's proposed action, and (3) alternatives to the proposed action.

3.1 NO-ACTION ALTERNATIVE

The no-action alternative is license denial. Under the no-action alternative, the project would not be built and environmental resources in the project area would not be affected.

3.2 APPLICANT'S PROPOSAL

3.2.1 Proposed Project Facilities

GB Energy proposes the following new project facilities (Figure 2) for the Gordon Butte Project: (1) a 250-foot-long, 3-foot-diameter pipeline and pump house connected to an existing 3-mile-long, 4-foot-wide, 4-foot-deep irrigation canal for pumping of a hand operated valve and gravity feed for initial fill water and annual make-up fills to the lower reservoir; (2) a 3,000-foot-long, 1,000-foot-wide upper reservoir created by a 50- to 75-foot-high, 9,000-foot-long earthen and roller compacted concrete (RCC) embankment lined with impervious geotextile or pavement, with a normal maximum pool elevation of 6,020 feet mean sea level (MSL), storage capacity of approximately 4,050 acre-feet, and surface area of approximately 50 acres; (3) a reinforced concrete intake/outlet structure at the upper reservoir with six intake bays converging into a central 750-foot-long vertical shaft; (4) a 25-foot-diameter, 3,500-foot-long concrete and steel-lined penstock tunnel leading from the upper reservoir to the lower reservoir; (5) a 2,500-foot-long, 1,500-footwide lower reservoir created by a 50- to 75-foot-high, 10,000-foot-long earthen and RCC embankment lined with impervious geotextile or pavement, with a normal maximum pool elevation of 4,990 feet MSL, storage capacity of approximately 4,050 acre-feet, and surface area of approximately 85 acres; (6) a buried powerhouse with two 100-megawatt (MW) variable speed turbine/generators and two 100-MW ternary hydraulic short-circuit turbine/generators; (7) a substation at the powerhouse site; (8) a 5.7-mile-long, 230kilovolt (kV) single circuit transmission line; (9) a substation connecting to an existing non-project transmission line⁴ (10) approximately 7.4 miles of new access roads; (11) a

⁴ The existing 500-kV Colstrip transmission line is jointly owned by NorthWestern Energy, Puget Sound Energy, PacifiCorp, Portland General Electric, and Avista Corporation.

3.7-mile-long existing access road;⁵ and (11) appurtenant facilities.

3.2.2 Proposed Project Operation

The Gordon Butte Project would operate as a closed-loop pump storage system. Water for the initial fill and subsequent annual make-up fills would be provided from Cottonwood Creek via *the existing irrigation canal and new pump house and pipeline an irrigation pipeline that would terminate at the lower reservoir. A hand-operated valve would be installed to regulate the flow of water into the lower reservoir via a gravity feed*. During normal operation, the project would pump water from the lower reservoir to the upper reservoir through the penstock at times when energy in is excess or in low demand. When energy is needed, water would be released from the upper reservoir through the penstock and underground powerhouse. The Gordon Butte Project would have an installed capacity of 400 MW and an estimated annual energy production of 1,300 GWh.

3.2.3 Proposed Environmental Measures

GB Energy proposes to construct and operate the Gordon Butte Project with the environmental protection and enhancement measures described below.

Geologic and Soil Resources

• Employ best management practices during design and construction to mitigate any potential adverse effects on soil resources.

Aquatic Resources

• Develop a spill management plan to address potential effects on water quality during construction.

Terrestrial Resources

• None proposed.

⁵ As discussed earlier, GB Energy is no longer proposing to include the 3.7-mile segment of the existing windfarm access road as a project feature. However, Commission staff's initial assessment suggests that this 3.7-mile existing road segment is a project feature because it is necessary to provide access to the project's upper reservoir.

Threatened and Endangered Species

• None proposed.

Recreation and Land Use

• None proposed.

Cultural Resources

- Design the project to avoid identified cultural properties or traditional cultural properties.
- Mitigate any adverse effects on cultural resources or traditional cultural properties through planned data recovery of cultural resource properties.
- Develop an Historic Properties Management Plan (if warranted) to provide a formal framework for the future treatment of all known cultural properties within the Area of Potential Effect that are eligible to be listed on the National Register of Historic Places.

Aesthetic Resources

- Construct the project in a manner that would minimize any adverse effects on aesthetic resources.
- Employ Best Management Practices to address potential adverse visual effects.

Socioeconomics

• None proposed.

Air Quality

• None proposed.

3.3 ALTERNATIVES TO THE PROPOSED ACTION

Commission staff will consider and analyze all recommendations for operation or facility modifications, as well as for protection, mitigation, and enhancement measures identified by us, resource agencies, Indian tribes, NGOs, and the public.

4.0 SCOPE OF CUMULATIVE EFFECTS AND SITE-SPECIFIC RESOURCE ISSUES

4.1 CUMULATIVE EFFECTS

According to the Council on Environmental Quality's regulations for implementing NEPA (40 C.F.R. 1508.7), a cumulative effect is the effect on the environment that results from the incremental effect of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

4.1.1 Resources That Could Be Cumulatively Affected

Based on our review of the PAD and preliminary staff analysis, we have identified *water resources and* terrestrial resources as resources that may be cumulatively affected by the proposed construction and operation of the project.

4.1.2 Geographic Scope

Our geographic scope of analysis for cumulatively affected resources is defined by the physical limits or boundaries of: (1) the proposed action's effect on the resources, and (2) contributing effects from other hydropower and non-hydropower activities within the drainage basin. Because the proposed action would affect the resources differently, the geographic scope for each resource may vary.

At this time, we have tentatively identified the portion of the upper Musselshell River basin from the existing diversion on Cottonwood Creek down to the Dead Man's Basin Dam on the Musselshell River as our geographic scope of analysis for cumulatively affected water resources. Activities within this portion of the basin that may cumulatively affect water resources include: (1) diversions for irrigation and livestock; (2) diversions for private, municipal, and industrial water usage; and (3) construction of on-stream and off-stream storage reservoirs. At this time, we have tentatively identified the lower Cottonwood Creek watershed *from the existing diversion on Cottonwood Creek down to the creek's confluence with the South Fork Musselshell River* as our geographic scope of analysis for cumulatively affected terrestrial resources. Activities within this watershed that may cumulatively affect terrestrial resources include: (1) wind farm maintenance activities in the vicinity of the upper reservoir, and (2) agricultural operations in the vicinity of the lower reservoir.

4.1.3 Temporal Scope

The temporal scope of our cumulative effects analysis in the EA will include a discussion of past, present, and future actions and their effects on each resource that could be cumulatively affected. Based on the potential term of an original license, the temporal scope will look 30-50 years into the future, concentrating on the effect on the resources from reasonably foreseeable future actions. The historical discussion will, by necessity, be limited to the amount of available information for each resources. The quality and quantity of information, however, diminishes as we analyze resources further away in time from the present.

4.2 **RESOURCE ISSUES**

In this section, we present a preliminary list of environmental issues to be addressed in the EA. We have identified these issues, which are listed by resource area, by reviewing the PAD, *reviewing the* Commission's record for the project, *and considering issues that were raised during the scoping process*. This list is not intended to be exhaustive or final, but contains those issues raised to date that could have substantial effects. After the scoping process is complete, we will review this list and determine the appropriate level of analysis needed to address each issue in the EA. Those issues identified by an asterisk (*) will be analyzed for both cumulative and site-specific effects.

4.2.1 Geologic and Soil Resources

- Effects of project construction on erosion and sedimentation of project lands and waters, especially areas known to have a severe erodibility hazard such as the penstock and *access roads*.
- Effects of construction spoil disposal on soil resources.
- Effects of seismic activity in the project vicinity on soil and geologic resources.

4.2.2 Aquatic Resources

- Effects of project construction and operation on the water quality of project waters and Cottonwood Creek.
- Effects of project operation on stream flows in Cottonwood Creek.
- Effects of *project construction and operation* on surface water uses in the basin.
- Effects of project construction and operation on fisheries and aquatic habitat in project waters and Cottonwood Creek.
- Effects of project construction on groundwater resources including springs in the project vicinity that supply water for public use.
- Effects of windblown dust generated from project construction activities on the Martinsdale reservoir.

4.2.3 Terrestrial Resources*

- Effects of project construction and operation on vegetation.
- Effects of project construction and operation on the spread of invasive species, including the consequences of the spread of noxious weeds on vegetation species composition and wildlife habitat values.
- Effects of upland, riparian, and wetland habitat loss on wildlife, including *mammals (e.g., elk, moose,* mule deer, *swift fox), reptiles (e.g., rattlesnakes), amphibians (e.g., tiger salamanders)*, and *birds (e.g.,* Sprague's pipit⁶ and greater sage-grouse).
- Effects of project construction and operation on the North American wolverine.
- Effects of project operation on waterfowl and other birds caused by entrainment during project operation when water is moved from one reservoir to the other.

⁶ Sprague's pipit is a small songbird that breeds in grassland habitat. *It is currently designated as a federal candidate species for listing under the Endangered Species Act.*

• Effects of the transmission line on *wildlife* (*e.g.*, raptors, waterfowl, other migratory birds, and other wildlife).

4.2.4 Threatened and Endangered Species

• Effects of project construction and operation on the *threatened Canada lynx*.

4.2.5 Recreation and Land Use

- Effects of project construction, operation, and maintenance on recreation resources, *including hunting opportunities*, in the project vicinity.
- Effects of project construction, operation, and maintenance on other land use activities in the project vicinity including irrigation, agricultural production, grazing, and private residents.

4.2.6 Cultural Resources

• Effects of construction and operation of the proposed project on historic, archaeological, and traditional resources that may be eligible for inclusion in the National Register of Historic Places.

4.2.7 Aesthetic Resources

- Effects of project construction and operation on aesthetic resources, including views, in the project vicinity.
- Effects of noise from project construction, operation, and maintenance on recreational and residential use in the project vicinity.

4.2.8 Socioeconomics

- Effects of the project on the local economy of Meagher County, Montana, including the effects of the influx of construction, operation, and maintenance workers on goods and services in the local community as well as the amount of tax revenue that would be generated by the project.
- Effects of the project on the availability of resources such as gas, food, and housing for incoming workers as well as the local community.

4.2.9 Air Quality

• Effects of project construction activities *including windblown dust and vehicle emissions* on air quality.

5.0 PROPOSED STUDIES

Depending upon the recommendations of the consulted entities, GB Energy would consider, and may propose certain other measures to enhance environmental resources affected by the project as part of the proposed action. GB Energy's initial study proposals are identified by resource area below. Further studies may need to be added to this list based on comments provided to the Commission and the applicant from interested participants, including Indian tribes. GB Energy proposes the following:

Resource Area and Issue	Proposed Study/Information Need
Geology and Soils	Conduct geology and soil evaluations and identify potential geologic hazards and soil instability.
Aquatic Resources	Characterize benthic macroinvertebrate communities and aquatic habitat and identify the potential project effects on aquatic resources.
Terrestrial Resources	Identify the types, abundance, and distribution of wetlands and riparian habitats and other plant communities within the project boundary, including along the proposed transmission line right-of-way; quantify the potential project effects on vegetation.
	Identify use by raptors, waterfowl, and other wildlife by season and habitat type; evaluate species presence and habitat quality for federal candidate species and birds protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act; quantify the potential project

Resource Area and Issue	Proposed Study/Information Need
	effects on wildlife resources.
Threatened and Endangered Species	None proposed.
Recreation and Land Use	Identify recreation and land use resources and needs in the project area and evaluate the effects of project construction, operation, and maintenance on those resources.
Cultural Resources	Conduct a class III cultural resource inventory of the Area of Potential Effect and a traditional cultural properties (TCP) study to locate and document all cultural resources and TCPs and determine their eligibility for inclusion in the National Register of Historic Places.
Aesthetic Resources	Quantify and qualify the existing visual quality of the project area and analyze potential visual effects of the project.
Socioeconomics	Evaluate the effects of project construction and operation on the local and regional economy and on local social conditions, goods, and services.
Air Quality	None proposed.

6.0 EA PREPARATION SCHEDULE

At this time, we anticipate the need to prepare a draft and final EA. The draft EA will be sent to all persons and entities on the Commission's service and mailing lists for the project. The EA will include our recommendations for operating procedures, as well as environmental protection and enhancement measures that should be part of any original license issued by the Commission. All recipients will then have 30 days to review the EA and file written comments with the Commission. All comments on the

draft EA filed with the Commission will be considered in preparation of the final EA. The major milestones, including those for preparing the EA, are as follows:

Major Milestone	Target Date
Scoping Meetings	June 2014
Scoping Document 2 Issued	August 2014
License Application Filed	September 2015
Ready for Environmental Analysis Notice Issued	November 2015
Deadline for Filing Comments, Recommendations and	
Agency Terms and Conditions/Prescriptions	January 2016
Draft EA Issued	July 2016
Comments on Draft EA Due	August 2016
Final EA Issued	January 2017

If Commission staff determines that there is a need for additional information or additional studies, the issuance of the Ready for Environmental Analysis notice could be delayed. If this occurs, all subsequent milestones would be delayed by the time allowed for GB Energy to respond to the Commission's request.

7.0 PROPOSED EA OUTLINE

The preliminary outline for the Gordon Butte Project EA is as follows:

TABLE OF CONTENTS LIST OF FIGURES LIST OF TABLES ACRONYMS AND ABBREVIATIONS EXECUTIVE SUMMARY

1.0 INTRODUCTION

- 1.1 Application
- 1.2 Purpose of Action and Need for Power
- 1.3 Statutory and Regulatory Requirements
 - 1.3.1 Federal Power Act
 - 1.3.1.1 Section 10(j) Recommendations
 - 1.3.2 Clean Water Act
 - 1.3.3 Endangered Species Act
 - 1.3.4 National Historic Preservation Act
- 1.4 Public Review and Comment
 - 1.4.1 Scoping
 - 1.4.2 Interventions
 - 1.4.3 Comments on the Application
 - 1.4.4 Comments on Draft EA

2.0 PROPOSED ACTION AND ALTERNATIVES

- 2.1 No-action Alternative
- 2.2 Proposed Action
 - 2.2.1 Proposed Project Facilities
 - 2.2.2 Project Safety
 - 2.2.3 Proposed Project Operation
 - 2.2.4 Proposed Environmental Measures
 - 2.2.5 Modifications to Applicant's Proposal—Mandatory Conditions
- 2.3 Staff Alternative
- 2.4 Staff Alternative with Mandatory Conditions
- 2.5 Other Alternatives (as appropriate)
- 2.6 Alternatives Considered but Eliminated from Detailed Study
- 3.0 ENVIRONMENTAL ANALYSIS

- 3.1 General Description of the River Basin
- 3.2 Scope of Cumulative Effects Analysis
 - 3.2.1 Geographic Scope
 - 3.2.2 Temporal Scope
- 3.3 Proposed Action and Action Alternatives
 - 3.3.1 Geologic and Soil Resources
 - 3.3.2 Aquatic Resources
 - 3.3.3 Terrestrial Resources
 - 3.3.4 Threatened and Endangered Species
 - 3.3.5 Recreation and Land Use
 - 3.3.6 Cultural Resources
 - 3.3.7 Aesthetic Resources
 - 3.3.8 Socioeconomics
 - 3.3.9 Air Quality
- 3.4 No-action Alternative

4.0 DEVELOPMENTAL ANALYSIS

- 4.1 Power and Economic Benefits of the Project
- 4.2 Comparison of Alternatives
- 4.3 Cost of Environmental Measures

5.0 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 Comparison of Alternatives
- 5.2 Comprehensive Development and Recommended Alternative
- 5.3 Unavoidable Adverse Effects
- 5.4 Recommendations of Fish and Wildlife Agencies
- 5.5 Consistency with Comprehensive Plans
- 6.0 FINDING OF NO SIGNIFICANT IMPACT (OR OF SIGNIFICANT IMPACT)
- 7.0 LITERATURE CITED
- 8.0 LIST OF PREPARERS

APPENDICES

A-Response to Comments on the Draft Environmental Assessment

8.0 COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C. section 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. Staff has preliminarily identified and reviewed the plans listed below that may be relevant to the Gordon Butte Project. Agencies are requested to review this list and inform Commission staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission, or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 CFR section 2.19 of the Commission's regulations. Please follow the instructions for filing a plan at http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf.

The following is a list of comprehensive plans currently on file with the Commission that may be relevant to the Gordon Butte Project:

- Montana Board of Natural Resources and Conservation. n.d. Order of the Board of Natural Resources establishing water reservations. Helena, Montana.
- Montana Department of Environmental Quality. 2004. Montana water quality integrated report for Montana (305(b)/303(d)). Helena, Montana. November 24, 2004.
- Montana Department of Environmental Quality. 2001. Montana non-point source management plan. Helena, Montana. November 19, 2001.
- Montana Department of Environmental Quality. Montana's State water plan: 1987-1999.
 Part I: Background and Evaluation. Part II: Plan Sections Agricultural Water Use Efficiency; Instream Flow Protection; Federal Hydropower Licensing and State Water Rights; Water Information System; Water Storage; Drought Management; Integrated Water Quality and Quantity Management; Clark Fork Basin Watershed Management Plan; Upper Clark Fork River Basin Water Management Plan; and Montana Groundwater Plan. Helena, Montana.
- Montana Department of Fish, Wildlife, and Parks. Montana Statewide Comprehensive Outdoor Recreation Plan (SCORP): 2003-2007. Helena, Montana. March 2003.
- Montana State Legislature. 1997. House Bill Number 546. Total Maximum Daily Load. Helena, Montana.
- U.S. Fish and Wildlife Service. Canadian Wildlife Service. 1986. North American

waterfowl management plan. Department of the Interior. Environment Canada. May 1986.

- U.S. Fish and Wildlife Service. 1989. U.S. Prairie Pothole joint venture implementation plan: A component of the North American waterfowl management plan. April 1989.
- U.S. Fish and Wildlife Service. 1995. U.S. Prairie Pothole joint venture implementation plan update. Department of the Interior, Denver, Colorado. January 1995.
- U.S. Fish and Wildlife Service. n.d. Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service. Washington, D.C.

9.0 MAILING LIST

The list below is the Commission's official mailing list for the project. If you want to receive future mailings for the project from the Commission and are not included in the list below, please send your request by email to <u>efiling@ferc.gov</u> or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written and emailed requests to be added to the Commission's mailing list must clearly identify the following on the first page: Gordon Butte Pumped Storage Project No. 13642-001. You may use the same method if requesting removal from the mailing list below.

Register online at <u>http://www.ferc.gov/docs-filing/esubscription.asp</u> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at <u>FERCOnlineSupport@ferc.gov</u> or toll free at 1-866-208-3676, or for TTY, (202) 502-8659

Meagher County	Meagher County	Montana Department of
P.O. Box 309	Conservation District	Fish Wildlife and Parks
White Sulphur Springs, MT	P.O. Box 589	54078 U.S. Highway 2 West
59645	White Sulphur Springs, MT	Glasgow, MT 59230
	59645	
Montana Department of	Peter Marchi	Carl Borgquist
Environmental Quality	Chief Water Commissioner	President
Director	P.O. Box 96	Absaroka Energy LLC
P.O. Box 200901	Martinsdale, Montana	708 North Rouse
Helena, Montana 59620-	59053	Bozeman, Montanta 59715

Mailing List

0901		
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Chairman Blackfeet Tribe of the Blackfeet Indian Reservation P.O. Box 850 Browning, Montana 59417- 0850	P.O. Box 471 Bonner, Montana 59823- 0471	Administration P.O. Box 3621 Portland, Oregon 97208- 3621
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Glacier, County of County Clerk 512 East Main St Cut Bank, Montana 59427	Glasgow Irrigation District Manager P.O. Box 271 Glasgow, Montana 59230	Harlem Irrigation District Manager P.O. Box 157 Harlem, Montana 59526
Steve Bellcoff HYDRO SITE DATABASE – ECB-911-2 P.O. Box 3621 Portland, OREGON 97208- 3621	Malta Irrigation District District Supervisor P.O. Box 1340 Malta, Montana 59523	Montana Bureau of Mines & Geology C/O Montana College of Mineral Science & Technology Butte, Montana 59701

Montana Coop. Fishery Research Unit U.S.D.I. Dept. of Biology Montana State University Bozeman, Montana 59717- 0001 Montana Dept. of Agriculture Agriculture & Livestock Bldg. Capitol Station Helena, Montana 59620- 0201	Montana Department of Natural Resources & Conservation P.O. Box 201601 Helena, Montana 59620- 1601 Montana Dept. of Fish, Wildlife & Parks Fisheries Habitat Bureau P.O. Box 200701 Helena Montana 59620- 0701	Montana Dept. of Fish, Wildlife, & Parks Manager 2300 Lake Elmo Drive Billings, Montana 59105 Montana Dept. of Natural Resources P.O. Box 201601 Helena, Montana 59620- 1601
Montana Dept. of State Lands Capitol Station Helena, Montana 59620	Montana Historical Society P.O. Box 201201 Helena, Montana 59620- 1201	Montana Office of Attorney General Atty. General State Capitol Helena, Montana 59601
Montana State Historic Preservation Office State Historic Preservation Officer 225 N Roberts St. Helena, Montana 59601- 4514	Montana Dept. of Natural Resources Montana Water Resources Division 1424 9 th Ave. Helena, Montana 59601	Paradise Valley Irrigation District District Manager P.O. Box 1417 Chinook, Montana 59523- 4926
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Stephen Bredthauer Technical Review Program Manager U.S. Army Corps of Engineers, NW Division P.O. Box 2870 Portland, Oregon 97208- 2870	U.S. Bureau of Indian Affairs Rocky Mountain Regional Office 2021 4th Avenue North Billings, Montana 59101	Bob Dach Hydropower Program Manager U.S. Bureau of Indian Affairs Natural Resources 911 NE 11th Avenue Portland, Oregon 97232- 4169

U.S. Bureau of Indian	U.S. Bureau of Land	Robert F Stewart
Affairs	Management	Director
FERC Coordinator	APPLICANT	U.S. Department of Interior
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Portland, Oregon 97232-	4669	0007
4169		
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	Denver, Colorado 80202	1266
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Service	U.S. Fish and Wildlife	Director
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Senator	Senator	Regional Hydropower
U.S. Senate	U.S. Senate	Coord.
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USDA Forest Service		
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