FINAL GREEN AND COLORADO RIVERS MINERAL LEASING PLAN AND RECORD OF DECISION



Prepared for Utah Department of Natural Resources, Division of Forestry, Fire & State Lands
Prepared by SWCA Environmental Consultants

JANUARY 2020

FINAL GREEN AND COLORADO RIVERS MINERAL LEASING PLAN AND RECORD OF DECISION

Prepared for

Utah Department of Natural Resources Utah Division of Forestry, Fire & State Lands

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January 2020

FINAL GREEN AND COLORADO RIVERS MINERAL LEASING PLAN RECORD OF DECISION

GREEN AND COLORADO RIVERS MINERAL LEASING PLAN RECORD OF DECISION

Record Number: 20-01060-03

Date of Execution: January 6, 2020

Introduction

Pursuant to Utah Code 65A-2-2 and 65A-2-4 and the implementing regulations of Utah Administrative Code R652-90, the Utah Division of Forestry, Fire & State Lands (FFSL or the division) is empowered to prepare and adopt management plans for sovereign lands and resources. Given this direction, FFSL initiated the *Green and Colorado Rivers Mineral Leasing Plan* (MLP) revision process with interagency cooperation and collaboration and with open public participation. For the duration of the planning process, FFSL temporarily withdrew permitting for mineral leasing. Existing leases, permits, and easements were allowed to be renewed, extended, or amended in accordance with Utah Administrative Code R652-90-700.

The primary purpose of the MLP is to guide FFSL, along with adjacent landowners and other local, state, and federal partners, in managing, allocating, and appropriately using the mineral resources of the Green and Colorado Rivers. The MLP sets forth guidance and direction for future mineral resource management activities on both rivers.

In compliance with policy, procedures, rules, and statutes for resource management planning, FFSL has completed the mineral resource management plan for the planning area. Therefore, FFSL issues this record of decision for the MLP.

Description of Lands Directly Affected

The Utah State Legislature defines sovereign land as "those lands lying below the ordinary high water mark [OHWM] of navigable bodies of water at the date of statehood and owned by the state by virtue of its sovereignty" (Utah Code 65A-1-1). As noted in this definition, the state's ownership extends to the OHWM; however, knowing exactly where the OHWM was located at statehood is challenging for the Green and Colorado Rivers. For this reason, and because the OHWM has not been mapped continuously along either river, the planning unit area (or "planning area") for the MLP extends laterally from top of bank to top of bank. As part of an authorization process, a case-by-case demarcation of the OHWM may be required. The planning area consists of the length of the Green River from the border of Dinosaur National Monument to Sand Wash, and from Swasey's rapid to the border of Canyonlands National Park. In addition, the planning area consists of the length of the Colorado River from the Utah-Colorado state line to the border of Canyonlands National Park, and the separate, submerged river segment beneath Lake Powell. In cases where sovereign land boundaries associated with the Green or Colorado Rivers have not been settled, the visions, goals, policies, and objectives in the MLP will apply to those lands that are judged to be sovereign lands.

Proposed Action

The proposed action associated with this record of decision is the adoption and implementation of the 2020 MLP.

Relevant Factual Background

FFSL initiated the MLP revision to update, consolidate, and replace the 1998 MLP and all associated amendments. The MLP planning process began in December 2017 and was conducted concurrently with the planning processes for the *Green River Comprehensive Management Plan* (GRCMP)¹ and *Colorado River Comprehensive Management Plan* (CRCMP).² Through a rigorous competitive process, SWCA Environmental Consultants (SWCA) was hired to facilitate the development of the comprehensive management plans and the MLP.

FFSL was interested in improving cooperative management, planning, and research activities within the Utah Department of Natural Resources and incorporated these agencies into the GRCMP, CRCMP, and MLP planning team. Representatives from the Utah Department of Environmental Quality, State of Utah School and Institutional Trust Lands Administration, Utah Department of Agriculture and Food, Utah Department of Transportation, and the Utah State Historic Preservation Office were also included on the planning team.

As part of the planning process, the planning team members provided input and technical support relevant to their area of expertise throughout the process. The purposes of the planning team were to

- provide resource-specific guidance throughout the planning process;
- provide the most recent, relevant research and data pertaining to river resources and associated uses;
- provide timely review and comment on the documents throughout the planning process; and
- offer project updates and opportunities for comment to State of Utah agencies and the general public.

Public Outreach

The development of the MLP involved a 17-month public outreach process from March 2018 to July 2019. FFSL initiated the MLP planning with a press release distributed on March 12, 2018. Notification of the planning process was made to the Resource Development Coordinating Committee (RDCC) on March 26, 2018. A presentation was also made to the RDCC on February 7, 2019.

WCA Environmental Consultants, CRSA Architecture, River Science Institute, Inc., J. Schmidt, and A. Walker. 2020. *Green River Comprehensive Management Plan*. Salt Lake City, Utah: SWCA Environmental Consultants.

² SWCA Environmental Consultants, CRSA Architecture, River Science Institute, Inc., J. Schmidt, and A. Walker. 2020. *Colorado River Comprehensive Management Plan*. Salt Lake City, Utah: SWCA Environmental Consultants.

FFSL, SWCA, and CRSA conducted two series of public open house meetings. The first series focused on kicking off the project and gathering information, and the second series focused on reviewing the draft MLP. In addition, meetings were held with stakeholder groups, county commissioners, federal agencies, and tribes as described below.

General Public

Open house format meetings were held in each of the counties through which the rivers flow and in Salt Lake City to kick off the public engagement process. Dates, times, and locations for these meetings are provided in Tables 1 and 2.

Table 1. Green River Planning Area Public Open House Series #1: Project Kickoff

Date	Time	City, County, and State	Location and Address
March 27, 2018	6:00-8:00 p.m.	Vernal, Uintah County, Utah	Uintah County Library 204 East 100 North
April 12, 2018	6:00-8:00 p.m.	Hanksville, Wayne County, Utah	Hanksville EMS Building 575 South Park Town Loop
April 18, 2018	6:00-8:00 p.m.	Moab, Grand County, Utah	Grand County High School 608 South 400 East
April 19, 2018	6:00-8:00 p.m.	Green River, Emery County, Utah	John Wesley Powell River History Museum 1765 East Main Street
May 22, 2018	5:00-7:00 p.m.	Salt Lake City, Salt Lake County, Utah	Department of Natural Resources 1594 West North Temple

Table 2. Colorado River Planning Area Public Open House Series #1: Project Kickoff

Date	Time	City, County, and State	Location and Address
April 10, 2018	6:00-8:00 p.m.	Kanab, Kane County, Utah	Kanab City Library 374 North Main Street
April 11, 2018	6:00-8:00 p.m.	Escalante, Garfield County, Utah	Escalante Senior Center 89 North 100 West
April 17, 2018	6:00-8:00 p.m.	Monticello, San Juan County, Utah	San Juan County Administration Building 117 South Main Street
April 18, 2018	6:00-8:00 p.m.	Moab, Grand County, Utah	Grand County High School 608 South 400 East
May 22, 2018	5:00-7:00 p.m.	Salt Lake City, Salt Lake County, Utah	Department of Natural Resources 1594 West North Temple

Open house format meetings were also used in the same counties to present the draft MLP and to initiate the public comment process. Dates, times, and locations for these meetings are provided in Tables 3 and 4.

Table 3. Green River Planning Area Public Open House Series #2: Draft Plan Review

Date	Time	City, County, and State	Location and Address
June 10, 2019	5:00-7:00 p.m.	Vernal, Uintah County, Utah	Uintah County Library 204 East 100 North
June 10, 2019	5:00-7:00 p.m.	Hanksville, Wayne County, Utah	Hanksville EMS Building 575 South Park Town Loop
June 25, 2019	5:00-7:00 p.m.	Moab, Grand County, Utah	Grand Center 182 North 500 West
June 26, 2019	5:00-7:00 p.m.	Green River, Emery County, Utah	John Wesley Powell River History Museum 1765 East Main Street

Table 4. Colorado River Planning Area Public Open House Series #2: Draft Plan Review

Date	Time	City, County, and State	Location and Address
June 18, 2019	5:00-7:00 p.m.	Escalante, Garfield County, Utah	Escalante Senior Center 89 North 100 West
June 19, 2019	5:00-7:00 p.m.	Kanab, Kane County, Utah	Kanab City Library 374 North Main Street
June 24, 2019	5:00-7:00 p.m.	Monticello, San Juan County, Utah	San Juan County Administration Building 117 South Main Street
June 25, 2019	5:00-7:00 p.m.	Moab, Grand County, Utah	Grand Center 182 North 500 West

Stakeholders

All stakeholders interested in the rivers were invited to attend the public open houses in each county. In addition, stakeholder workshops were convened for the following groups: recreation, agriculture/irrigation, environmental, and mineral/energy. The first series of stakeholder workshops was held to obtain detailed information on river management concerns and potential goals and objectives. The second series of stakeholder meetings was held after the publication of the draft plan in 2019 to solicit feedback. Dates, times, and locations for these workshops are provided in Tables 5 and 6.

Table 5. Green River Planning Area Stakeholder Workshops

Date	Time	City, County, and State	Location and Address
June 13, 2018	5:00-7:00 p.m.	Vernal, Uintah County, Utah	Uintah County Library 204 East 100 North
June 27, 2018	5:00-7:00 p.m.	Moab, Grand County, Utah	Grand County Public Library 257 East Center Street
June 28, 2018	11:00 a.m1:00 p.m.	Green River, Emery County, Utah	John Wesley Powell River History Museum 1765 East Main Street
June 10, 2019	7:00-8:00 p.m.	Vernal, Uintah County, Utah	Uintah County Library 204 East 100 North
June 25, 2019	7:00-8:00 p.m.	Moab, Grand County, Utah	Grand Center 182 North 500 West

Table 6. Colorado River Planning Area Stakeholder Workshops

Date	Time	City, County, and State	Location and Address
June 27, 2018	5:00-7:00 p.m.	Moab, Grand County, Utah	Grand County Public Library 257 East Center Street
June 25, 2019	7:00-8:00 p.m.	Moab, Grand County, Utah	Grand Center 182 North 500 West

Counties

To reach out to county governments whose management authority often extends to the boundary of sovereign lands, FFSL made direct contact with county-elected officials and planning staff by email and telephone to present the rationale for the MLP and answer any questions about the process. Commissioners were invited to the public open houses previously described. In addition, a meeting was scheduled with the commissioners in each county to discuss county-specific issues and concerns (Tables 7 and 8).

Table 7. Green River Planning Area County Meetings

Date	Time	City, County, and State	Location and Address
March 27, 2018	4:00-5:00 p.m.	Vernal, Uintah County, Utah	Uintah County Offices 152 East 100 North
April 12, 2018	12:00-1:00 p.m.	Loa, Wayne County, Utah	Wayne County Courthouse 18 South Main Street
April 17, 2018	10:00-11:00 a.m.	Castle Dale, Emery County, Utah	Emery County Offices 75 E. Main Street
April 18, 2018	4:00-5:00 p.m.	Moab, Grand County, Utah	Grand County Offices 125 E. Center Street

Table 8. Colorado River Planning Area County Meetings

Date	Time	City, County, and State	Location and Address
April 10, 2018	4:00-5:00 p.m.	Kanab, Kane County, Utah	Kane County Courthouse 76 North Main Street
April 11, 2018	12:00-1:00 p.m.	Panguitch, Garfield County, Utah	Garfield County Courthouse 55 South Main Street
April 17, 2018	4:00-5:00 p.m.	Monticello, San Juan County, Utah	San Juan County Administration Building 117 South Main Street
April 18, 2018	4:00-5:00 p.m.	Moab, Grand County, Utah	Grand County Offices 125 E. Center Street

Federal Agencies

Federal agencies manage property adjacent to the boundary of Green and Colorado River sovereign lands and may have overlapping jurisdiction with FFSL. FFSL made direct contact with federal agencies such as the U.S. Bureau of Land Management, U.S. National Park Service, Natural Resources

Conservation Service, U.S. Fish and Wildlife Service, U.S. Department of Energy, and the Office of Senator Mike Lee through email to present an overview of the MLP process and invite staff to all of the public open houses. In addition, working meetings were scheduled with federal agencies to allow for one-on-one discussions of agency-specific issues and concerns. A second set of meetings was scheduled after the publication of the draft plan in 2019 to collect feedback (Tables 9 and 10).

Table 9. Green River Planning Area Federal Meetings

Date	Time	City, County, and State	Location and Address
June 13, 2018	1:00-3:00 p.m.	Vernal, Uintah County, Utah	Uintah County Library 204 East 100 North
June 27, 2018	1:00-3:00 p.m.	Moab, Grand County, Utah	Grand County Public Library 257 East Center Street
June 10, 2019	3:00-4:00 p.m.	Vernal, Uintah County, Utah	Uintah County Library 204 East 100 North
June 25, 2019	3:00-4:00 p.m.	Moab, Grand County, Utah	Grand Center 182 North 500 West

Table 10. Colorado River Planning Area Federal Meetings

Date	Time	City, County, and State	Location and Address
June 27, 2018	1:00-3:00 p.m.	Moab, Grand County, Utah	Grand County Public Library 257 East Center Street
June 25, 2019	3:00-4:00 p.m.	Moab, Grand County, Utah	Grand Center 182 North 500 West

Tribes

Because the Ute Indian Tribe of the Uintah and Ouray Indian Reservation, Navajo Nation, and Ute Mountain Ute Tribe are considered adjacent landowners or stakeholders in the MLP process, FFSL reached out to tribal officials through email and by telephone to explain the MLP process and invite tribal members to attend any of the public open houses. In addition, FFSL presented a slideshow that provided an overview of the MLP planning process and expected outcome on August 10, 2018, at the Utah Tribal Leaders meeting in Salt Lake City. After publication of the draft MLP, FFSL presented an overview of the draft plan and information on how to submit comments at a Utah Tribal Leaders meeting in Cedar City, Utah, on June 6, 2019.

Meeting Design

The open houses combined formal presentation and open house formats. At each meeting, the FFSL sovereign lands planner or sovereign lands program manager provided a project overview presentation. Following this overview, FFSL and SWCA staff answered questions and facilitated information-gathering activities in an open house format, as applicable. Attendees were greeted, asked to sign in, provided information about the meeting format, and given the option of taking a brochure and/or business card with project details, the MLP website (http://bit.ly/GreenColoradoRivers Plans), and contact information. Attendees were informed about ways to follow the planning process, provide information, and submit comments. They were encouraged to ask questions of the facilitators.

During open house series #1, display boards were arranged around the meeting room to allow attendees to make comments on river resources, including minerals and energy. During open house series #2, a different set of display boards was used to provide information from the draft plan such as river use classes and sovereign lands mineral leasing classification.

Stakeholder workshops were held in an open house format. At times, attendees were broken into smaller groups representing their stakeholder interests. For the first set of stakeholder workshops, directed questions were prepared to use in small groups for guided discussion; however, attendees preferred a more free-flowing conversation. County and federal meetings were also held in an open house format with a free-flowing exchange of ideas and information.

Meeting Advertising

Pursuant to FFSL requirements, public open house meetings were advertised in a variety of formats before their scheduled dates. In each format, the advertisements provided logistics, explained the purpose of the meetings, gave the public comment period schedule if applicable, outlined additional methods to comment, and provided ways to obtain more information. Methods of communicating with the public, stakeholders, counties, federal agencies, and tribes included media outlets, direct emails, direct mail postcards, the project website, the FFSL website, and FFSL press releases.

Advertising for Public Open Houses

Meeting information for the MLP project kickoff open houses was posted on the project website and emails were sent on March 21, 2018, and May 9, 2018 (for the Salt Lake City open house). Media releases for the project kickoff open houses were emailed on March 12, 2018, to FFSL's Public Information Officer's statewide media contact list.

Meeting information for the draft MLP review open houses was posted on the project website and emails were sent on May 31, 2019, and June 13, 2019. Media releases for the draft MLP review open houses were emailed on June 3, 2019, to FFSL's Public Information Officer's statewide media contact list.

Formal newspaper legal notices for the MLP project kickoff open houses were submitted and requested to be posted on the following dates in 2018:

- Southern Utah News (Kane County): March 29, 2018, and April 5, 2018
- Uintah Basin Standard (Uintah County): March 13, 2018, and April 20, 2018
- Vernal Express (Uintah County): March 13, 2018, and April 20, 2018
- The Insider (Garfield and Wayne Counties): March 30, 2018; April 6, 2018; and June 12, 2018
- ETV Emery County (Emery County): April 4, 2018, and April 11, 2018
- Moab Times Independent (Grand County): April 5, 2018, and April 12, 2018
- Moab Sun News (Grand County): April 5, 2018, and April 12, 2018

- San Juan Record (San Juan County): April 3, 2018, and April 10, 2018
- Salt Lake Tribune, Deseret News, and Utahlegals.com (Salt Lake County): March 13, 2018 and March 20, 2018 (Uintah County); March 27, 2018 (Garfield, Kane, and Wayne Counties); April 3, 2018 (Emery, San Juan, and Grand Counties); May 7, 2018 (Salt Lake County)

Formal newspaper legal notices for the draft MLP review open houses were posted as follows in 2019:

- Southern Utah News (Kane County): May 30, 2019, and June 6, 2019
- Uintah Basin Standard (Uintah County): May 28, 2019, and June 4, 2019
- Vernal Express (Uintah County): May 28, 2019, and June 4, 2019
- The Insider (Garfield and Wayne Counties): May 30, 2019, and June 6, 2019
- ETV Emery County (Emery County): June 12, 2019, and June 19, 2019
- Moab Times Independent (Grand County): June 13, 2019, and June 20, 2019
- Moab Sun News (Grand County): June 13, 2019, and June 20, 2019
- San Juan Record (San Juan County): June 12, 2019, and June 19, 2019
- Salt Lake Tribune, Descret News, and Utah Legals.com (Salt Lake County): May 24, 2019, May 31, 2019, and June 7, 2019 (Garfield, Kane, Uintah, and Wayne Counties); June 8, 2019, June 15, 2019, and June 22, 2019 (Emery, San Juan, and Grand Counties)

A list of planning process participants was developed from the following sources:

- Individuals or organizations (land-use applicants) holding an FFSL authorization
- All landowners adjacent to Green and Colorado River sovereign lands within the affected counties
- Green and Colorado River stakeholders including agricultural and irrigation interests, environmental organizations, mineral/energy groups, and members of the recreation community
- Green and Colorado River stakeholders identified by the planning team
- Tribes identified by SWCA cultural resource specialists
- Local, state, and federal agencies identified as having jurisdictional authority in the project

The following invitations were sent to inform interested participants of the open houses, stakeholder workshops, and county and federal meetings:

- Emails sent in March 2018 and May 2018 (Salt Lake City open house) for open houses series #1
- Postcards sent to current lessees and adjacent landowner in March 2018 for open house series #1
- Emails sent to stakeholders in May and June 2018 for the first stakeholder workshop
- Emails sent to county commissioners in March and April 2018 for the county meetings
- Emails sent to federal agencies in May and June 2018 for the federal agencies' working meeting

- Emails sent in May and June 2019 for open house series #2
- Postcards sent to current lessees and adjacent landowners in May and June 2019 for open house series #2
- Emails sent to stakeholders in May 2019 for the second stakeholder workshop
- Emails sent to federal agencies in May and June 2019 for the draft MLP review meeting

The formal comment period began on May 31, 2019. The last day of the public comment period was July 19, 2019, allowing more than 30 days from the first draft review open house on June 10, 2019. The final MLP and record of decision were posted to the FFSL website on January 8, 2020. FFSL sent final postcards and emails of the issued record of decision on January 8, 2020. Petitions for consistency review were to be received by January 28, 2020.

Public Trust

Primary management responsibility for the river's resources lies with FFSL pursuant to Utah Code 65A, which governs management of all state lands within the jurisdiction of FFSL. Utah Code 65A-2-1 states that FFSL "shall administer state lands under comprehensive land management programs using multiple-use, sustained-yield principles." FFSL acknowledges its obligation to multiple-use sustained yield management, as well as its responsibility to the Public Trust (described in Utah Administrative Code R652-2).

FFSL will manage the Green and Colorado Rivers and their resources under multiple-use, sustained yield principles, while accommodating public and private uses to the extent that they do not substantially impair Public Trust resources (navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality) or the river's sustainability.

The overarching management objectives of FFSL are to protect and sustain the Public Trust resources and to provide for reasonable beneficial uses of those resources, consistent with their long-term protection and conservation. The 2020 MLP was designed to facilitate FFSL's management of the Green and Colorado Rivers and their mineral resources under these principles.

Interagency Coordination

Interagency coordination and communication are essential because Green and Colorado River management is complex and because multiple government agencies are involved with various resources and uses. During the MLP planning process, FFSL understood the importance of maintaining communication with the planning team. As outlined in Utah Code 65A-2-2, FFSL may request support for implementation of state land management plans and to this end seeks to maintain support across state agencies as it implements the 2020 GRCMP, CRCMP, and MLP. The management direction of the MLP encourages collaboration with adjacent landowners and agencies that have jurisdiction or authority on the river to improve overall river management and decision making. A complete discussion of agencies with intersecting jurisdictions and regulatory authorities can be found in the GRCMP and CRCMP. In addition, FFSL's strategy for communication between agencies can be found in the Coordination Framework chapters of these documents.

Public Outreach: Notification, Comment, and Review

As outlined earlier in this decision document, the public had numerous opportunities to contribute to the MLP. As required by Utah Administrative Code R652-90-500, FFSL notified RDCC about the planning process and the draft MLP on March 26, 2018, and June 3, 2019, respectively. The project was made available for public comment on the Project Management System website (Exhibit A). However, no comments were received via RDCC during the planning process. Stakeholders and state, federal, and local governments were notified numerous times throughout the planning process, requesting their attendance at public meetings and requesting their comments. Notification for the first public open house series was sent by postcard to approximately 343 addresses and 177 email addresses. For the second series, notification was sent by postcard to approximately 379 addresses and 252 email addresses. Stakeholders were notified by email before the stakeholder workshops. The final announcement of this record of decision was sent by postcard to approximately 379 addresses (Exhibit B) and 252 email addresses. The formal 50-day public comment period for the draft MLP began on May 31, 2019, and ended on July 19, 2019. The public comment period followed the release of the draft MLP and coincided with the second round of public outreach meetings. Comments were accepted by comment response forms at public meetings, on the project website, by email, and by postal mail.

FFSL received three written submissions commenting on the draft MLP. Comments pertained to classification, impacts from proposed lease sales, and management philosophy. From the written submissions, four individual comments were extracted for review of acceptance or non-acceptance. Comments on the draft MLP were acknowledged and addressed, as appropriate, by FFSL (Exhibit C).

Constitutional Provisions, Statutes, and Administrative Rules *Utah Constitution Article XX, Section 1*

The Utah Constitution Article XX, Section 1 states the following:

All lands of the State that have been, or may hereafter be granted to the State by Congress, and all lands acquired by gift, grant or devise, from any person or corporation, or that may otherwise be acquired, are hereby accepted, and ... are declared to be the public lands of the State; and shall be held in trust for the people, to be disposed of as may be provided by law, for the respective purposes for which they have been or may be granted, devised or otherwise acquired.

Utah Code 65A-2-1. Administration of State Lands - Multiple-Use Sustained-Yield Management

Utah Code 65A-2-1 states the following:

The division shall administer state lands under comprehensive land management programs using multiple-use sustained-yield principles.

Utah Code 65A-2-2. State Land Management Planning Procedures for Natural and Cultural Resources, Assistance from other State Agencies, Division Action

Utah Code 65A-2-2 states the following:

The division:

- (1) shall develop planning procedures for natural and cultural resources on state lands; and
- (2) may request other state agencies to generate technical data or other management support services for the development and implementation of state land management plans.

Utah Code 65A-2-4. State Land Management Plans, Division to Adopt Rules for Notifying and Consulting with Interested Parties

Utah Code 65A-2-4 states the following:

- (1) The division shall adopt rules for notifying and consulting with interested parties including the general public, resources users, and federal, state, and local agencies on state land management plans.
- (2) Division rules shall provide:
 - (a) for reasonable notice and comment periods; and
 - (b) that the division respond to all commenting parties and give the rationale for the acceptance or non-acceptance of the comments.

Utah Code 65A-10-1. Authority of Division to Manage Sovereign Lands

Utah Code 65A-10-1 states the following:

(1) The division is the management authority for sovereign lands, and may exchange, sell, or lease sovereign lands but only in the quantities and for the purposes as serve the public interest and do not interfere with the public trust.

Utah Administrative Code R652-2-200. Sovereign Land Management Objectives

Utah Administrative Code R652-2-200 states the following:

The state of Utah recognizes and declares that the beds of navigable waters within the state are owned by the state and are among the basic resources of the state, and that there exists, and has existed since statehood, a public trust over and upon the beds of these waters. It is also recognized that the public health, interest, safety, and welfare

require that all uses on, beneath or above the beds of navigable lakes and streams of the state be regulated, so that the protection of navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality will be given due consideration and balanced against the navigational or economic necessity or justification for, or benefit to be derived from, any proposed use.

Utah Administrative Code R652-70-200. Classifications of Sovereign Lands

Utah Administrative Code R652-70-200 states the following:

Sovereign lands may be classified based upon their current and planned uses. A synopsis of some possible classes and an example of each class follows. For more detailed information, consult the management plan for the area in question.

- 1. Class 1: Manage to protect existing resource development uses. The Utah State Park Marinas on Bear Lake and on Great Salt Lake are areas where the current use emphasizes development.
- 2. Class 2: Manage to protect potential resource development options. For example, areas adjacent to Class 1 areas which have the potential to be developed.
- 3. Class 3: Manage as open for consideration of any use. This might include areas which do not currently show development potential but which are not now, or in the foreseeable future, needed to protect or preserve the resources.
- 4. Class 4: Manage for resource inventory and analysis. This is a temporary classification which allows the division to gather the necessary resource information to make a responsible classification decision.
- 5. Class 5: Manage to protect potential resource preservation options. Sensitive areas of wildlife habitat may fall into this class.
- 6. Class 6: Manage to protect existing resource preservation uses. Cisco Beach on Bear Lake is an example of an area where the resource is currently being protected.

Utah Administrative Code R652-90-300. Initiation of Planning Process

Utah Administrative Code R652-90-300 states the following:

2. Resource Management planning is initiated by the division's identification and determination that there is a need for such a plan.

Utah Administrative Code R652-90-500. Notification and Public Comment

Utah Administrative Code R652-90-500 states the following:

- 3. Notice that a site-specific or resource planning effort is under way shall be given to:
 - (a) Affected parties as required by rule for exchange, or lease;
 - (b) The Governor's Office of Planning and Budget for inclusion in the RDCC Project Management System for public and agency notification and comment.

Utah Administrative Code R652-90-600. Public Review

Utah Administrative Code R652-90-600 states the following:

- 2. Resource plans shall be published and made available upon request.
 - (a) Persons wishing to comment on these plans may do so at any time.
 - (b) The division shall acknowledge all written comments.

Findings of Fact

- 1. As described herein, FFSL notified the public and local, federal, and state agencies, including the RDCC, of the MLP planning effort.
- 2. As described herein, FFSL conducted public meetings in conjunction with the MLP planning effort.
- 3. As described herein, FFSL published a draft of the MLP and accepted comments from the public and other government entities and responded to all comments properly submitted.
- 4. FFSL considered and implemented legislative directives concerning the content of the MLP.

Conclusions of Law

- 1. FFSL properly initiated the planning process for a resource management plan by designating the planning unit and planning priorities established by FFSL.
- 2. FFSL fulfilled its notification requirements to lessees, to local governments, and to the RDCC when the project was initiated. FFSL went beyond its required notification by also notifying adjacent landowners and stakeholders.
- 3. The notification requirements for the public meetings have been met or exceeded.
- 4. The public review requirements have been met or exceeded.
- 5. FFSL properly responded to comments received in compliance with the applicable law.
- 6. The MLP fulfills the requirements of applicable statutes, rules, policies, and legal doctrines.
- 7. The planning process and subsequent MLP comply with the legal requirements for a resource management plan.

Decision and Order

Based on the foregoing, FFSL hereby adopts the MLP, which satisfies the requirements of applicable statutes, rules, and policies. The MLP becomes the resource management plan that guides mineral leasing on the sovereign lands within the planning area. The MLP supersedes any and all previous management plans—adopted, draft, or otherwise—and represents the official position of FFSL.

Dated this 6th day of January 2020.

Administrative Appeals

Parties having an interest in this action may file a petition for administrative review by the division pursuant to Utah Administrative Code R652-9. Said petition must be in writing and shall contain

- 1. the statute, rule, or policy with which the division action is alleged to be inconsistent;
- 2. the nature of the inconsistency of the division action with the statute, rule, or policy;
- 3. the action the petitioner feels would be consistent under the circumstances with statute, rule, or policy; and
- 4. the injury realized by the party that is specific to the party arising from division action. If the injury identified by the petition is not peculiar to the petitioner as a result of the division action, the director will decline to undertake consistency review.

Said petition must be received by the division by 5:00 p.m. on January 28, 2020.

APPROVED BY:
Bran 2 Gt
BRIAN COTTAM
STATE FORESTER/DIRECTOR
DATE: 12-27-19
PREPARED BY:
LAURA VERNON
SOVEREIGN LANDS PLANNER
DATE: 12 26 19
REVIEWED BY:
JAMES BARNES
SOVEREIGN LANDS PROGRAM MANAGER
DATE: 1-0-000
REVIEWED BY:
Frebi Dabl
FREDRIC J. DONALDSON
ASSISTANT ATTORNEY GENERAL

Green and Colorado Rivers Mineral Leasing Plan Record of Decision			
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EXHIBIT A. RESOURCE DEVELOPMENT COORDINATING COMMITTEE DOCUMENTATION

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Agency Dashboar
Agency Calendar
Add Project
Utah.gov
Main PI PCO Site

-Project Information —			
	Close		
	Close		
	Project #69363 Saved, Submitted projects are		
0	subject to review by PLPCO staff prior to official		
	project creation.		
Project Id:	59363		
* Stream Alt (
l l	DNR/Division of Forestry, Fire & State Lands		
*Comments Due to Sponsor:			
Anticipated Project Start Date:	_, , , , ,		
	Green and Colorado River Draft Comprehesive Management Plan and Up		
	The Utah Department of Natural Resources Division of Forestry, Fire		
-	and State Lands (FFSL) is seeking public comment on the draft		
	Comprehensive Management Plans (CMPs) and draft Mineral Leasing Plan (MLP) for the Green and Colorado Rivers. Multiple open houses will		
	be held to host the public and receive comments about the draft plans.		
	.il		
Project URL:	http://bit.ly/gcrcmp		
i	e. http://www.epa.gov/fedrgstr/EPA-PROJ1/2009/August/Day-12/e19998.htm		
* Counties: select all	unselect all		
Beaver	☑ Garfield ☐ Rich ☐ Utah		
Box Elder	☑ Grand ☐ Salt Lake ☐ Wasatch		
Cache	☐ Iron ☐ San Juan ☐ Washington		
Carbon	☐ Juab ☐ Sanpete ☑ Wayne		
Daggett Daggett	✓ Kane Sevier Weber		
Davis	Millard Summit		
Duchesne	Morgan Tooele		
✓ Emery	☐ Piute ☐ Uintah		
	Lat/Lon (Decimal) 38.28557,-110.0119		
	.at./Lon Decimal ex. 40.7653,-111.8933		
Location or Supplemental Att			
Attach a location or supplemental format.	file to the project. Office type documents will be converted to the PDF Upload		
	.xls, .xlsx, .txt, .rtf, .csv, .pdf, .tif, .gif, .jpg, .bmp, .png, .oda		
Location Attachment	: 🔁 GCRCMP Press Release_R2 05-21-2019.pdf [remove]		
	,		
* Has local government been (No. ○ No.		
contacted?	9 165 ()110		
*Date local government was	05/31/2019 == (MM/DD/YYYY)		
contacted:			
response?	Invitations sent to county officials to review and meeting to discuss the draft plans.		
	al		
	Consistent river management guidance from FFSL on Green and		
likely to be impacted?			
*Describle significant income	None antisinated		
*Possible significant impacts likely to occur:	vone anticipated		
•	all all		
Admin Notes:			
	al and the second secon		
(255 characters remaining)			
Project Contact Information	,		
	Laura Vernon		
*Phone Number			
	lauravernon@utah.gov		
	: Laura Vernon (lauravernon@utah.gov)		
	, , , , , , , , , , , , , , , , , , , ,		
Save			

EXHIBIT B. NOTICE TO INTERESTED PARTIES (MLP CURRENT LESSEES AND ADJACENT LANDOWNER MAILING LIST)

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ADAMS,BILL L CO-TRUSTEE	Adesta Communications Inc	Adventure Bound Inc
PO BOX 293	70 West 500 South	2392 H Road
Green River UT 84525	Provo UT 84601	Grand Junction CO 81505
dreen niver or 04323	11000 01 04001	Grand Janetion CO 01303
Adventure Bound, Inc. River	AGAINST THE WIND PROPERTIES LLC	ALLEIN,JOHN MICHEAL
Expeditions	4898 S 4625 E	2556 E VALLEY VIEW AVE
2392 H Road	VERNAL UT 84078	HOLLIDAY UT 84117
Grand Junction CO 81505		
American Adventure Productions, Inc.	AMERICAN GILSONITE COMPANY	American River Touring Association, Inc.
314 South Second St	P O BOX 7611	24000 Casa Loma Rd
Aspen CO 81611	SAN FRANCISCO CA 94120-7611	Groveland CA 95321
Anderson Dentagen	ANTI EC DANDY AND III I	
Andover Partners	ANTLES RANDY AND JILL	Armstrong Resources, LLC
1001 Fannin Suite 2000	3000 S 5000 E	1421 Blake Street
Houston TX 77002	VERNAL UT 84078	Denver CO 80202
ARNOLD COLLETT	Aurora Gathering, LLC.	'BANASKY JAMES RANCHES LLC'
P O BOX 311	1401 17Th St, Suite 700	'PO BOX 728'
JENSEN UT 84035	Denver CO 80202	'PRICE' 'UT' 84501
Banasky, James	Banson, Bonnie	BARDON BENJAMIN
2080 Spring Oaks Drive	12601 Darlene Lane	337 E HORSESHOE BEND RD
Springdale UT 84663	Hot Springs SD 57747	VERNAL UT 84078
Base Camp	BBJC INVESTMENT COMPANY LTD	BEASLEY JAMES R
P.O. Box 37	2690 TELEMARK DR	4941 S 2525 E
Moab UT 84532	PARK CITY UT 84060	VERNAL UT 84078
BEEZ INC	Belco Development Corp	BIG DOG PROPERTIES LLC ETAL
1120 E 1500 S	PO Box 1188	2550 E 1500 S
VERNAL UT 84078	Houston TX 77251	VERNAL UT 84078
'BINGHAM MARC C'	BLM (MOAB FIELD OFFICE)	BLM (Monticello Field Office)
'PO BOX 185'	82 E DOGWOOD	365 North Main
'OREM' 'UT' 84059	MOAB 'UT' 84532	Monticello UT 84535
BLM (PRICE FIELD OFFICE)	BLM (VERNAL FIELD OFFICE)	Blue Heron Outfitters, Inc.
125 S 600 W	170 S 500 E	PO Box 1520
PRICE UT 84501	VERNAL UT 84079	Moab UT 84532
	VENIULE 01 040/3	

BOWDEN ROBERT	Poudon Pandal	BRAD HASLEM INVESTMENTS LLC
PO BOX 165	Bowden, Randal PO Box 692	826 S 1500 E
JENSEN UT 84035	Moab UT 84532	VERNAL UT 84078
JENSEN UT 64055	IVIOAD 01 64552	VERNAL UI 84076
BREWER,KESHA B	Bureau of Land Management, Grand	BURROLA JOSEANGEL AND MARIBEL
PO BOX 304	Resource Area	3029 S 670 E
Green River UT 84525	PO Box 970	VERNAL UT 84078
	Moab UT 84532	
Cabot Oil & Gas Production Cor	CADY,MAE	Calais Resources Inc
PO Box 4544	24438 CREAMERY LN	202 Spring St PO Box 310
Houston TX 77210-4544	WEED CA 96094	Morrision CO 84065
Calais Resources Inc	Canyon River Company	Canyon Voyages
PO Box 310	1914 South Cross Hollow Dr	PO Box 416
Morrison CO 80465	Cedar City UT 84720	Moab UT 84532
Canyonlands by Night	Canyonlands Field Institute	CARROLL DON J & JEAN R
P.O Box 328	Ft Duchesne	12457 S DRAPER GROVE CT
Moab UT 84532	Moab UT 84532	DRAPER UT 84020
'CARROLL DRILLING LLC'	'CARTER JUSTIN E'	Carter, Dorothy
'11850 S HWY 191 STE A-10'	'P O BOX 101'	3480 E 3000 S
'MOAB' 'UT' 84532	'GREEN RIVER' 'UT' 84525	Roosevelt UT 84066
CARTER,DOROTHY A	Centennial Canoe Outfitters	CHAFFIN,STEPHEN FAUN
PO BOX 436	1623 Juniper Ct.	1919 9 RD
ALTAMONT UT 84001	Grand Junction CO 81505	MACK CO 81525
'CHANDLER JAMES M'	CHAPMAN NILE AND ROGER	Chapoose Canyon Adventures
PO BOX 372	PO BOX 818	PO Box 766
'GREEN RIVER' 'UT' 84525	ROOSEVELT UT 84066	Ft Duchesne UT 84026
GREEN RIVER OT 84323	NOOSEVEET OT 84000	11 Ducheshe O1 84020
Chevron USA Inc	Chevron USA Inc	CHEW RANCH LLC ETAL
PO Box 1635	PO Box 36366	PO BOX 126
Houston TX 77251	Houston TX 77236	JENSEN UT 84035-0126263
Chris Sammartano Productions	CJC Properties	COLLINS RANDY V AND JESSICA
68 Jeffreys Neck Rd	1111 Horizon Dr. Unit 807	616 S 2150 W
lpswich MA 1938	Grand Junction CO 81506	VERNAL UT 84078

Colorado Outward Bound	COLORADO RIVER & TRAIL EXPED	Colorado River & Trail Expeditions
16 Ranch Road	5058 COMMERCE DR	5058 South 300 West
Moab UT 84532	SALT LAKE CITY UT 84107	Salt Lake City UT 84107-4708
Colorado River And Trail Exped	Compass Minerals Ogden Inc	'CONRAD PATRICK N'
5058 South 300 West	765 North 10500 West	'PO BOX 10263'
Salt Lake City UT 84107-4708	Ogden UT 84404	'FORT SMITH' 'AR' 72917
Construction Company, Inc	Corporate Helicopters	'CRUEGER ROBERT KYLE'
166 East 14000 South Suite 200	PO Box 296	'2918 61ST AVE NORTHEAST'
Draper UT 84020	Moab UT 84532	'TACOMA' 'WA' 98422
CUMMINGS LORENZO JOHN AND	CV AGRICULTURE LLC	CV AGRICULTURE LLC
LAJEAN R TRUSTEES CUMMINGS ASSET	PO BOX 70	PO BOX 623
PROTECTION TRUST	Green River UT 84525	Green River UT 84525
1050 E BRIGHAM RD #72		
DALBO INC	DAVIS VICTOR AND AMANDA	Deer Hill Expeditions
2180 S 1300 E STE # 310	490 E HORSESHOE BEND RD	PO Box 180
SALT LAKE CITY UT 84106	VERNAL UT 84078	Mancos CO 81328
DESERET GENERATION &	Desert Highlights	Div of Parks And Recreation
TRANSMISSION COOPERATIVE	PO Box 1342	1594 West North Temple Ste 116
10714 SOUTH JORDAN GATEWAY	Moab UT 84532	Salt Lake City UT 84114-6001
SOUTH JORDAN UT 84095	1410ab 01 84332	Sait Lake City Of 84114-0001
Dominion Exploration & Product	Don Hatch River Expeditions, Inc.	DUCHESNE COUNTY WATER
1450 Poydras Street	PO Box 67	CONSERVANCY DISTRICT
New Orleans LA 70112-6000	Angels Camp UT 95222	275 W 800 S
		ROOSEVELT UT 84066
'DUNHAM CHRIS C'	'DUNHAM KELLY'	Dunham Land & Livestock
'PO BOX 193'	'PO BOX 451'	PO Box F
'GREEN RIVER' 'UT' 84525	'GREEN RIVER' UT 84525	Green River UT 84525
'DUNHAM NANCY JEAN TRUSTEE'	DUNHAM,CHRIS C	DUNHAM,KELLY
'PO BOX 540'	PO BOX 193	PO BOX 451
'GREEN RIVER' 'UT' 84525	Green River UT 84525	Green River UT 84525
DUNHAM,NANCY JEAN TRUSTEE	El Paso Production Oil& Gas Co	Encana Oil & Gas (USA) Inc
PO BOX 451	1099 - 18Th St Suite 1900	950 17th Street Suite 2600
Green River UT 84525	Denver CO 80202	Denver CO 80202
2. 20 31 31323	256. 66 66262	23 33 30202

ENEFIT AMERICAN OIL CO Enron Oil & Gas Company **Enterprise Products** 307 W 200 S SUITE 4005 1625 Broadway Suite 1300 PO Box 4324 SLC UT 84101 Denver CO 80202 Houston TX 77210-4324 **EP Operating Company Ltd EOG Resources Inc** Epstien, William PO Box 2649 PO Box 4362 4391 S. Parkview Drive Dallas TX 75221-2649 Houston TX 72210-4362 Salt Lake City UT 84124 **ERWIN, JACK R & CHARLOTTE ERWIN, KIRK RANDALL ERWIN, KIRK RANDALL** PO BOX 142 PO BOX 638 PO BOX 640 Green River UT 84525 Green River UT 84525 Green River UT 84525 **Finley Resources** FARRER, ES MRS FINLEY PRODUCTION CO LP ETAL PO Box 2200 1731 HARTS MILL RD NE 1308 LAKE STREET ATLANTA GA 30341 FT WORTH TX 76102 Fort Worth TX 76113 FREEMAN LINDSAY MORGAN ETAL **G & H STORAGE LLC** Fryer, Colin PO BOX 340 11147 East SR128 331 N VERNAL AVE VERNAL UT 84078 RIVERTON UT 84065 Moab UT 84532 Gasco Production Comkpany **GEE KIMBERLY** 'GERBER JEFFREY MARK TRUSTEE' 8 Inverness Dr East Ste 100 15505 N 4400 W 'PO BOX 776009' Englewood CO 80112-5625 GARLAND UT 84312 'STEAMBOAT SPRINGS' 'CO' 80477 GILROY GREG L AND JOLYNN **GKM PROPERTIES LLC Grand County** 704 W 2500 S 85 S 200 E 125 East Center Street VERNAL UT 84078 VERNAL UT 84078 Moab UT 84532 **Gravity Play Sports Marketing** Gray, Gordon Great Iguana Filmworks 11536 Cr250 PO Box 232 17623 Bullock St Encino CA 91316 Durango CO 81301 Snyder TX 76550 GREEN PASTURE INTERNATIONAL INC **GREEN RIVER CANAL COMPANY Green River Companies** P O BOX 160 PO BOX 84 124 South 400 East JENSEN UT 84035 Green River UT 84525 Salt Lake City UT 84111 **GREEN RIVER COMPANIES LLC** GREEN RIVER COMPANIES, LLC' Green River Development Associates,

'9911 S 78TH AVE'

'HICKORY HILLS' 'IL' 60457

9911 S 78TH AVE

HICKORY HILLS IL 60457

Inc.

PO Box 570

Green River UT 84525

Green River Diversion Dam Cooperation	GREEN RIVER PROPERTIES LLC'	Green River Properties, LLC
·	'1648 FEDERAL HEIGHTS DR'	755 E. Turtle Point Drive
460 East Main	'SALT LAKE CITY' 'UT' 84103	Ivins UT 84738
Green River UT 84525		
GREEN RIVER REAL ESTATE INVEST	Green River Valley Investments, LLC	Griffith, Sheri
5911 FASHION BLVD STE 200	PO Box 1501	2740 Old City Park Road
SALT LAKE CITY UT 84107	Clifton CO 81520	Moab UT 84532
Group Publishing, Inc.	GW&E LC	Hansen, Bart
1515 Cascasde Avenue	580 West 1261 North	PO Box 653
Loveland CO 80538	Orem UT 84058	Mona UT 84645
HANSEN,RICHEY E	HARLOW LYLE W AND LINDA TRUSTEES	HARMSTON GREGG AND MELODY L
PO BOX 113	OF THE LYLE AND LINDA HARLOW	PO BOX 1548
Green River UT 84525	FAMILY TRUST	ROOSEVELT UT 84066
	751 S 2050 W	
Harris, Dale	HARRIS,BALLARD	HASLEM RICHARD M TRUSTEE OF THE
1258 S 860 W	1259 S 860 W	RICHARD M HASLEM TRUST DATED 11/3/2000 ETAL
Cedar City UT 84720	CEDAR CITY UT 84720	
		PO BOX 1265
'HASTINGS H L ET AL'	HATCH KENT DEE ETAL	HATT,BETSY R TRUSTEE
'400 36TH AVENUE'	141 W 500 S	PO BOX 420
'SANTA CRUZ' 'CA' 95062	HEBER CITY UT 84032	Green River UT 84525
HEATH,HAROLD TRUSTEE	Hiko Bell Mining & Oil Co	HISKEY MICHAEL K AND MARY ANN
40 N 425 E	PO Box 1845	P. O. BOX 315
SMITHFIELD UT 84335	Vernal UT 84078	EUREKA UT 84628
Holiday River Expeditions	HOLMES BAR NE RANCH LLC	HOLYOAK LAND AND LIVESTOCK LLC
544 East 3900 South	4751 S 500 E	PO BOX 82
Salt Lake City UT 84107	VERNAL UT 84078	Green River UT 84525
Suit Luke City O1 04107	VERNAL OF 04070	Green Miver O1 04323
HORROCKS DIXIE L TRUSTEE OF THE	HORROCKS JOSHUA G AND ERIN L	HOWLAND,ANNALEE
DIXIE L HORROCKS FAMILY TRUST	2209 S 2000 E	PO BOX 272
1785 S 1500 E	VERNAL UT 84078	Green River UT 84525
VERNAL UT 84078		
HOWLAND,GARY L & KOIE L TRUST	Hunt Petroleum (Aec), Inc	Hunt Petroleum (Aec), Inc
1829 N LABYRINTH DR	PO Box 1350	PO Box 1350
ST GEORGE UT 84770	Houston TX 77251-1350	Houston TX 77251-1350

HUNT, CHET D **HUNT, COBY HUNTING LARRIS A PO BOX 501 PO BOX 502** 2906 E 2500 S VERNAL UT 84078 Green River UT 84525 Green River UT 84525 **HUNTING ROBERT T HUNTING STEVEN C** Impossible Pictures 2575 S 2400 E 2442 E 2500 S 12 Great Portland Street VERNAL UT 84078 VERNAL UT 84078 London England INABNIT HENERY LES AND ZENAIDA D INDIAN RESERVATION (UINTAH & INDIAN TRAIL RANCH LLC TRUSTEES OF THE HENRY LES INABNIT **OURAY TRIBAL LANDS) 621 VISTA VIEW CT** TRUST ETAL FORT DUCHESNE UT 84026 NORTH SALT LAKE UT 84054 PO BOX 993 INTERMOUNTAIN CONCRETE CO **International Adventure Tours** 'INTERNATIONAL PETROLEUM LLC' 420 Kane Cr Blvd '8083 BARNWOOD WAY' 625 E MAIN ST VERNAL UT 84078-2703254 Moab UT 84532 'SANDY' 'UT' 84092 International Petroleum, LLC. Intrepid Oil & Gas, LLC. Intrepid Potash - Moab, LLC 4834 So Highland Dr #200 700 17Th Street Suite 1700 PO Box 1208 Salt Lake City UT 84117 Denver CO 80202 Moab UT 84532 J N TRUCKING INC JENSEN, JEAN WILCOX Jet Enterprises 4091 W 3000 S PO BOX 1736 2429 E 73rd Place ROOSEVELT UT 84066 PRICE UT 84501 Tulsa OK 74136 JHCRPN, LLC JOHNS WILLIAM J Johnston, Terill 5910 Emigration Canyon PO BOX 496 3595 Spanish Valley Dr NETTIE WV 26681-0496 Salt Lake City UT 84108 Moab UT 84532 JONES TIMOTHY C ETAL 'JOUFLAS CHRIS P' Jones, George **PO BOX 222** 10770 Fred Lane '1111 HORIZON DR UNIT 801' Missoula MT 59808 'GRAND JUNCTION' 'CO' 81506 JENSEN UT 84035 Kerr-Mcgee Oil & Gas Onshore L 'KING DEAN LEE' K BAR RANCH LLC PO BOX 757 PO Box 4995 **PO BOX 326** MOAB UT 84532 The Woodlands TX 77387-4995 'GREEN RIVER' 'UT' 84525 King Land & Livestock KING, DEAN LEE TRUSTEE Lakeside School PO Box 326 **PO BOX 326** 14050 First Avenue Ne

Green River UT 84525

Seattle WA 98125

Green River UT 84525

Lakeside School Outoor Program LAMB KARL AND DONNA Lance H&D Properties 14050 First Avenue Ne **PO BOX 216** PO Box 526 Seattle WA 98125 **MYTON UT 84052** Midway UT 84049 'LECHLEITER CRAIG' Land Rover G'4s Challenge LAZY 3X SWEETWATER RANCH LLC 1 Farnham Road **561 S ROAD** PO BOX 474 Guildford Surrey GU2-4RG MACK CO 81525 'GREEN RIVER' 'UT' 84525-0474 LEGRAND JOHNSON CONSTRUCT Letlow, Rusell LINDGREN, BONNIE B CO-TRUSTEE **PO BOX 248** 1626 W. 3rd Street 826 TEN LETTER CT **LOGAN UT 84323** Pecos TX 79722 KUNA ID 83634 LUTHER CHARLES AND YOLANDA D Livestock, Taylor Lomax Exploration Co 280 W. Center Street 475 Seventeenth St Suite 1500 P.O. BOX 492 Moab UT 84532 Denver CO 80202 DUCHESNE UT 84021 MASSEY SHON AND TAMRA MACKAY, DAVID J TRUSTEE MARTIN JAMES W 5058 COMMERCE DR 12730 HORSESHOE BEND RD 7770 E 7260 S VERNAL UT 84078 SALT LAKE CITY UT 84107 JENSEN UT 84035 **MATTINGLY, JAMES** MAYHEW LON W AND AMY L MCCARREL SCOTT & RAYMA 1945 SPANISH VALLEY DR PO BOX 9 **4556 E HIGHWAY 40** MOAB UT 84532 JENSEN UT 84035 VERNAL UT 84078-9271563 MCCARTNEY, SALLY DIANE MCFARLANE, KIM T MECHAM, GERALD D 1155 HAYES AVE **PO BOX 356** PO BOX 383 SALT LAKE CITY UT 84104 Green River UT 84525 CLEVELAND UT 84518 MERKLEY EDWARD H AND GERALDINE MERKLEY LORIN T AND BEVERLY - CO-'MEENS LAURENCE K' F TRUSTEES OF MERKLEY FAMILY TRUSTEES ETAL '3162 SADDLEGATE CT' TRUST 12/15/16 1357 N 3500 W 'GRAND JUNCTION' 'CO' 81504-4050 990 N 1270 W VERNAL UT 84078 'MITCHELL DENNIS' MERRELL DALE J AND JOANN R. TEES MIGLIACCIO, MARIOLIVER OF THE DALE J. MERRELL REVOC TRUST '125 WOLFE ST' PO BOX 229 ET AL 'ALEXANDRIA' 'VA' 22314-3831 Green River UT 84525 400 S BELLA VISTA DR Moab Gas Pipeline LLC Moab BLM Moab City 2370 South 2300 West 217 E. Center Street 1801 Broadway, Suite 800

Moab UT 84532

Denver CO 80202

Salt Lake City UT 84119

Moab Salt Inc	Morelli, Ralph	MORGAN JASEN M
PO Box 1208	5127 E. Woodland Ave	240 E HORSESHOE BEND RD
Moab UT 84532	Salt Lake City UT 84106	VERNAL UT 84078
MORRISON MICHAEL	MOST JOEL AND DANIELLE	Mountain Island Ranch
1030 E 500 S	508 E HORSESHOE BEND RD	PO Box 57
VERNAL UT 84078	VERNAL UT 84078	Glade Park CO 81523
'MOUNTAIN ISLAND RANCH LLC'	Myke Hughes, Inc	NASH ANN HUNTING
'5350 LITTLE DOLORES RD'	378 N Main	P O BOX 7953
'GLADE PARK' 'CO' 81523	Moab UT 84532	NIKISKI AK 99635
National Ability Center	National Outdoor Leadership Schools	National Park Service (Glen Canyon
1000 Ability Way	PO Box 1304	National Recreation Area)
Park City UT 84060	Vernal UT 84078	PO Box 1507
		Page AZ 86040
'NATURE CONSERVANCY THE'	Navtec Expeditions	'NELSON BRUCE EARL TRUSTEE'
'559 EAST SOUTH TEMPLE'	PO Box 1267	'BOX 537'
'SALT LAKE CITY' UT 84102	Moab UT 84532-1267	'GREEN RIVER' 'UT' 84525
'NELSON CHARLES W TRUSTEE'	Nelson, Robert	Newfield Production
'PO BOX 940'	PO Box 393	1001 17Th Street Suite 2000
'MOAB' UT 84532	Green River UT 84525	Denver CO 80202
Newland, William	Nichol's Expeditions	NICKEY, WILLIAM M JR TRUSTEE
PO Box 313	497 North Main St	1700 WIGGINS AVE
Green River UT 84525	Moab UT 84532	SPRINGFIELD IL 62704
NIELSEN NATHAN THOMAS	North American River Expeditions	Northwest Pipeline Corp
HC 69 BOX 192	PO Box 68	PO Box 58900
RANDLETT UT 84063	Angels Camp CA 95222	Salt Lake City UT 84158-0900
NITCH Coloredo los	Oeve Companien de la c	Onch are Offshare Funlariations
NTCH- Colorado, Inc	Oars Canyonlands Inc	Onshore Offshore Explorations
1600 Ute Avenue Ste 10	PO Box 67	PO Box 178
Grand Junction CO 81501	Angels Camp CA 95222	Durango CO 81302-0178
Ouray National Wildlife Refuge	OZAETA ADOLFO AND LORRIE ANN	PacifiCorp
1680 W Hwy 40 #112C	1318 W 2500 S	825 Ne Multnomah Suite 1000
Vernal UT 84078	VERNAL UT 84078	Portland OR 97232
	12	

'PALLADIUM FOUNDATION'	PALMER TERRY	Pan Oklahoma Corporation
'867 E SIMPSON AVE'	4880 S 4380 W	PO Box 371
'SALT LAKE CITY' UT 84106	KEARNS UT 84118	Riverton UT 84065
'PAPPAS STEVEN L' '424 K STREET' 'SALT LAKE CITY' 'UT' 84103	Parallel Petroleum Corp PO Drawer 10587 Midland TX 79700	PELTIER HENRY T AND TAMERA TRUSTEES OF HENRY T JR AND TAMERA C PELTIER TRUST
SALE BILL GITT OF GILES	Wildiana IX 73700	PO BOX 80
PETERSON COLE A ETAL	PETERSON KEITH B	PICKUP KENNETH D AND JOAN
PO BOX 37	PO BOX 13	HC 69 BOX 101
JENSEN UT 84035	JENSEN UT 84035	RANDLETT UT 84063
'PINNEO CHADWICK JIM'	'PINNEO FRANK JIM'	'PLEVELL JILL'
PO BOX 432	PO BOX 233	'7440 N BOGERT PL'
'GREEN RIVER' 'UT' 84525	'GREEN RIVER' 'UT' 84525-0233	'TUCSON' 'AZ' 85741
POELZL LILO 5583 N DRYFORK CANYON ROAD	POWELL KELLY DUANE AND JAN PO BOX 195	POWELL ROBERT R & NORMA 1960 E 1500 N
VERNAL UT 84078	JENSEN UT 84035	VERNAL UT 84078
Provo Canyon School	PURDY,FORREST TRUSTEE	OED Engray Company
4501 North University Ave	PO BOX 11	QEP Energy Company 1050 17Th Street, Suite 500
Provo UT 84604	WIKIEUP AZ 85360	Denver CO 80265
F10V0 01 84004	WINIEUF AZ 83300	Deliver CO 80203
QEP Field Services Company	QEP Uintah Basin, Inc	Questar Explor & Prod Co
160 East 100 South / Pob 45433	1050 17Th Street Suite 500	1050 17Th Street, Suite 500
Salt Lake City UT 84145-0433	Denver CO 80265	Denver CO 80265
Rahme, Richard	RAIM KENT WESLEY	RASMUSSEN SMOKEY TRUSTEE OF THE
PO Box 9286	17247 WARD CREEK RD	SMOKEY RASMUSSEN 2014 TRUST
Jackson WY 83002	CEDAREDGE CO 81413	PO BOX 141
		JENSEN UT 84035-0141419
Red Cliffs Adventure Lodge	Red Moon Ranch	RED MOUNTAIN CORPORATION
550 South Main	7722 Keswick Rd	PO BOX 818
Moab UT 84532	Sandy UT 84093	ROOSEVELT UT 84066
REDIPIANO ENTERPRISES LIMITED	'REDIPIANO ENTERPRISES LLC'	Rees, Steve
3688 FAIRWAY DRIVE	'1527 E WOODLAND AVE'	520 Main, Box 546
JUJU I I I I I I I I I I I I I I I I I I	1027 E 11 0 0 0 0 1 11 11 11 11 11 11 11 11 11	323 Many Box 370

'SALT LAKE CITY' 'UT' 84106

Ashton ID 83420

CAMERON PARK CA 95682

Renegade 83	RGBM, Inc.	RGMB, LLC
121 W Lexington Dr Bldg 413	3926 S. Lake Lane	3926 S Lake Ln
Glendale CA 91203-2203	Moab UT 84532	Moab UT 84532
D. I I.	DIGUES BLANE	D D. D
Richard Tangren	RICHES, DUANE	Rim to Rim Restoration
6775 Quinella Dr	PO BOX 278	PO Box 297
Las Vegas NV 89103	Green River UT 84525	Moab UT 84532
RJM INVESTMENT CO	ROACH RICHARD	Robert L. Bayless, Producer, LLC.
160 N 100 E	10741 E BRAINERD RD	621 17Th Street, Suite 2300
MOAB UT 84532	APISON TN 37302	Denver CO 80293-2023
Rocky Mountain Power	Rosen, Timothy	Rozman, Curtis
710 North Main Street	PO Box 1825	PO Box 757
Richfield UT 84701	Avon CO 81620	Moab UT 84532
RSA-USA, Inc.	'RTA MOAB VALLEY LLC'	RYAN,RANDY
634 North Lapeer Dr	'433 E. LAS COLINAS BLVD STE 300'	PO BOX 324
West Hollywood CA 90069	'IRVING' 'TX' 75039	Green River UT 84525
S & H RANCHES INC	S. Douglas Mclaughlin	'SALINAS J DANIEL'
PO BOX 150432	P.O. Box 758	'PO BOX 129'
EAST ELY NV 89315	Moab UT 84532	'GREEN RIVER' 'UT' 84525
		G. G
SALINAS,J DANIEL	'SALT LAKE ACCOMDATION NO 338 LLC'	Salt Lake Pipeline Co
PO BOX 129	'168 E CENTER ST'	2875 So Decker Lake Dr, # 150
Green River UT 84525	'MOAB' UT 84532	Salt Lake City UT 84119
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CORTEZ CO 81321	Green River UT 84525	SALT LAKE CITY UT 84117
SLAUGH BURNELL & CARMALITA, LEE &	SLAUGH BURNELL K AND CARMALETA	SLAUGH JOSEPH R AND TARI C
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EXHIBIT C. GREEN AND COLORADO RIVERS MINERAL LEASING PLAN PUBLIC COMMENTS

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Table C-1. Green and Colorado Rivers Mineral Leasing Plan Public Comments

Submission Number	Comment Location	Commenter	Topic	Comment Number	Comment	Disposition/Response to Comment
1	Email, paragraph 15	American Whitewater	Mineral leasing impacts	1.1	As recreation advocates, American Whitewater is concerned that FFSL may disregard potential impacts from proposed lease sales to river recreation and other important values. Because the direct, indirect, and cumulative effects that would result from implementation of potential mineral leases on sovereign lands would be detrimental to recreation experiences and local communities that have invested in recreation assets, FFSL should include the evaluation of these effects of potential leases on the region's recreation economy and how it would affect future growth opportunities in the local business community and socioeconomics regionally. Effects of oil and gas leasing are likely to have a direct effect on the physical setting for recreational activities, resulting in impacts to the tourist industry and economy.	FFSL recognizes that protection of navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality must be given due consideration and balanced against the need for, justification of, or benefit from any proposed use (including mineral leasing) (Utah Administrative Code R652-2-200). By statute, FFSL is required to manage for these five Public Trust values. Mineral leasing may not be allowed in a certain area if a site-specific analysis indicates that it is inconsistent with the protection of the Public Trust.
1	Email, paragraph 16	American Whitewater	NSO classification	1.2	American Whitewater supports the NSO classification of all sovereign lands on the Green and Colorado Rivers. While we understand the leasing of adjacent lands does not fall under the purview of the FFSL, we encourage any NSO stipulation developed for leases proposed on sovereign lands of the Green or Colorado Rivers acknowledge foreseeable impacts to how these leases might cumulatively affect recreation assets and related socioeconomics, and propose mitigating measures to address such negative impacts.	FFSL recognizes that protection of navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality must be given due consideration and balanced against the need for, justification of, or benefit from any proposed use (including mineral leasing) (Utah Administrative Code R652-2-200). By statute, FFSL is required to manage for these five Public Trust values. Mineral leasing may not be allowed in a certain area if a site-specific analysis indicates that it is inconsistent with the protection of the Public Trust. In addition, Utah Administrative Code R652-20 provides rules for the leasing of mineral resources on sovereign lands. One of the rules states that FFSL may require lessees to provide a cultural, paleontological, or biological survey on lands under mineral lease and to be responsible for reasonable mitigative actions as specified by FFSL.

Submission Number	Comment Location	Commenter	Topic	Comment Number	Comment	Disposition/Response to Comment
2	Email, paragraph 11	Sarah Stock	NSO classification	2.1	Another issue of crucial importance is that of leasing for oil and gas resources under the Green and Colorado Rivers. The Colorado River Basin system provides culinary and agricultural water to nearly 40 million people. It is of utmost importance that we preserve the quality of this water by protecting it from oil and gas operations under the rivers. The designation of "no surface occupancy" does not cut it in this regard, as contamination is still possible. There should be no oil or gas leasing allowed under the rivers or other important water ways.	In addition to managing for the Public Trust values of navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality, FFSL administers state lands by using multiple-use, sustained-yield principles as required by Utah Code 65A-2-1 and Utah Administrative Code R652-90-800. If mineral extraction from horizontal drilling includes sovereign lands within any legally approved drilling or spacing unit, FFSL is "obligated to receive full value for the public trust resources leased to persons for profit" (Utah Administrative Code R652-20-1000.2(d)(i)). FFSL cannot divest itself from the mineral estate located under Public Trust waters without compensation. Therefore, leases must be issued in such cases. These leases will be issued with a no surface occupancy stipulation. In addition to requiring minimal surface damage in any mineral development activities on sovereign lands, FFSL requires the planned development to not cause pollution or salinity in any navigable lake or stream in excess of the acceptable limits established by applicable ordinance, law, or inter-governmental treaty (Utah Administrative Code R652-20-3000.2).
3	Email, paragraph 1	San Juan County Commission	Consistency, philosophy, planning process	3.1	We have reviewed the Draft Comprehensive Management Plan and Mineral Leasing Plan for State sovereign lands of the Colorado River and find them to be consistent with the goals and policies of the San Juan County General Plan. We concur with the plans' overall management philosophy of multiple use, sustained yield and coordination with other land owners and agencies. We appreciate your efforts at public outreach during this planning process that including public meetings in San Juan County. We are appreciative of this opportunity to comment.	Thank you for you for taking the time to review the plans and for your comments.

FINAL GREEN AND COLORADO RIVERS MINERAL LEASING PLAN

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INTRODUCTION AND BACKGROUND

Introduction

The Utah Department of Natural Resources Division of Forestry, Fire & State Lands (FFSL) first developed a mineral leasing plan (MLP) for sovereign lands on the Green and Colorado Rivers in 1998. The 1998 MLP provided a brief history of mineral ownership and leasing, inventoried mineral resources, examined existing resource conflicts on the rivers, and outlined management direction (FFSL 1998). The 1998 MLP has been amended six times since the date of final approval. This 2020 Green and Colorado Rivers MLP has been developed to update, consolidate, and replace the 1998 plan and all associated amendments. This plan is not intended to assert State of Utah ownership or adjudicate or resolve any ownership or title issues. It is intended to be used as a management tool only for lands owned by the State of Utah. Issues related to ownership and title may be resolved formally or informally in separate proceedings.

Sovereign Land Boundaries

The Utah State Legislature defines sovereign land as "those lands lying below the ordinary high water mark [OHWM] of navigable bodies of water at the date of statehood and owned by the state by virtue of its sovereignty" (Utah Code 65A-1-1). FFSL rules define the OHWM as follows: "The high water elevation in a lake or stream at the time of statehood, uninfluenced by man-made dams or works, at which elevation the water impresses a line on the soil by covering it for sufficient periods to deprive the soil of its vegetation and destroy its value for agricultural purposes or other tests as may be applied by the courts. This 'ordinary high water mark' may not have been adjudicated by the courts" (Utah Administrative Code R652-1-200[17]). Navigable bodies of water in the State of Utah that are presently considered sovereign lands include the beds of Great Salt Lake, Utah Lake, and the Jordan River, along with portions of Bear Lake, Bear River, Colorado River, and Green River.

The OHWM along the navigable portions of the Green and Colorado Rivers is what defines FFSL's ownership. The boundary of sovereign land in a river corridor is intrinsically more difficult to define than that of a lake because rivers are more susceptible to substantial geographic movement and shifts in location over time. A thorough examination of the laws of water boundaries, particularly as they pertain to rivers, is complex and beyond the scope of this MLP. However, there are a few basic concepts that are important in understanding the management of rivers as sovereign lands.

Most rivers meander over time unless human-made or natural barriers exist to prevent such movement. As the course of the river changes, natural and artificial processes of erosion, reliction, avulsion, and accretion¹ may affect landownership. Generally, the gradual processes of accretion, reliction, and erosion change the property boundaries between private and public ownership. An adjacent, upland landowner may obtain title to any dry land added by accretion or reliction and/or

¹ Reliction = gradual recession of water, leaving land permanently uncovered; avulsion = rapid abandonment of a river channel and the formation of a new river channel; accretion = the gradual deposition of sediment along the edge of a channel.

may lose title to dry land eroded and now covered by water. For the purposes of sovereign land management, state ownership of the riverbed generally follows the movement of the river over time as it naturally meanders because of erosion, reliction, and accretion processes. However, landownership remains fixed regardless of sudden avulsive events. Avulsive events can result from natural occurrences such as flash floods or from human-made causes such as channel straightening or artificial channel relocation.

The Utah State Legislature has designated FFSL as the executive authority for the management of sovereign lands in Utah, including the Green River and Colorado River. Since the precise location of the OHWM at the time of statehood has not been determined for the entire Green and Colorado Rivers, FFSL generally manages the rivers from the top of the bank to the top of the opposite bank. Because knowing where the OHWM was located at statehood is challenging and because the OHWM has not been mapped continuously along the Green and Colorado Rivers, a case-by-case demarcation of the OHWM may be undertaken as part of a permit authorization process. Sovereign lands of the Green and Colorado Rivers are shown on Figure 1.

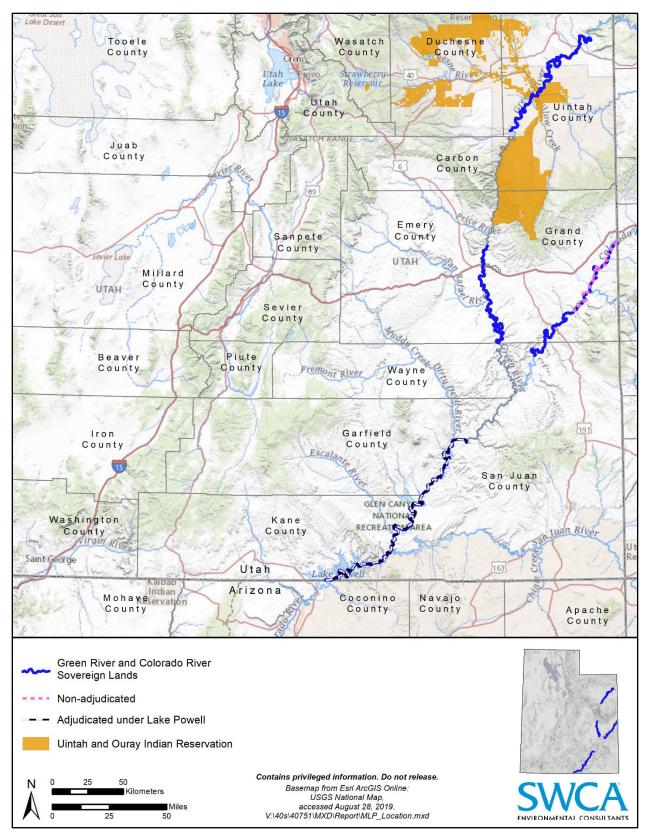


Figure 1. Sovereign Lands of the Green and Colorado Rivers.

The Public Trust and Multiple-Use, Sustained-Yield Principles

The Public Trust Doctrine is a legal principle derived from English common law. It provides that Public Trust lands, waters, and living resources in a state are held by the state in trust for the benefit of all people (Slade et al. 1997). The doctrine establishes the right of the public to use Public Trust resources, and it also establishes the responsibilities of the states when managing Public Trust assets (Slade et al. 1997). In general, Public Trust waters consist of the navigable waters in a state, whereas Public Trust lands are the lands beneath those waters up to the OHWM. The living resources (e.g., fish, aquatic plants, and aquatic wildlife) inhabiting these lands and water are also subject to the Public Trust Doctrine (Slade et al. 1997).

The State of Utah has recognized and declared that the bed and banks of navigable waters within the state are owned by the state and are among the basic resources of the state, and that there exists, and has existed since statehood, a Public Trust over and upon these waters (Utah Administrative Code R652-2-200). Segments of the Colorado and Green Rivers owned by the state are included in this category of navigable waters and are managed by FFSL for public benefit consistent with the Public Trust Doctrine.

Historically, the common law rights in Public Trust lands and waters were directly related to navigation, fishing, and commerce. As society has changed and evolved, the public's use of trust lands and waters has changed. The Public Trust Doctrine has evolved from preserving the public's right to use trust lands and waters for navigation, fishing, and commerce to include recreation, environmental protection, and the preservation of scenic beauty (Slade et al. 1997). Recognition of this evolution in the Public Trust Doctrine is found in the following management objective text from Utah Administrative Code R652-2: "It is also recognized that the public health, interest, safety, and welfare require that all uses on, beneath or above the beds of navigable lakes and streams of the state be regulated, so that the protection of navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality will be given due consideration."

In addition to managing for the Public Trust, FFSL administers state lands by using multiple-use, sustained-yield principles as required by Utah Code 65A-2-1 and Utah Administrative Code R652-90-800. As a trustee, FFSL must also strive for an appropriate balance among compatible and competing uses on the Green and Colorado Rivers. Fulfilling this obligation is particularly challenging when balancing recreational and aesthetic uses with compatible mineral development. The general rule consistently applied throughout the western states is "ownership of mineral rights in land is dominant over the rights of the owner of the fee to the extent reasonably necessary to extract the minerals therefrom" (*Flying Diamond v. Rust*, 551 P.2d 509 [Utah 1976]). Under this established legal principle, the surface owner cannot prevent mineral extraction if the proposed mineral development is reasonable, practical, and implemented to minimize surface damages.

While FFSL can establish management objectives preventing the surface occupancy of any planned mineral extraction on sovereign lands, a challenge is posed when an authorized lease on adjacent upland property contemplates horizontal drilling and mineral development. Under this scenario, FFSL, under the fiduciary obligation imposed by the Public Trust Doctrine, is precluded from

divesting itself from the mineral estate located under Public Trust waters without compensation. See generally *Illinois Central R.Co. v. State of Illinois et. al.*, 146 U.S. 387 (1892). Instead, if mineral extraction from horizontal drilling includes sovereign lands within any legally approved drilling or spacing unit, FFSL is "obligated to receive full value for the public trust resources leased to persons for profit" (Utah Administrative Code R652-20-1000.2(d)(i)). However, in addition to requiring minimal surface damage in any mineral development activities on sovereign lands, FFSL requires the planned development to not cause pollution or salinity in any navigable lake or stream in excess of the acceptable limits established by applicable ordinance, law, or inter-governmental treaty (Utah Administrative Code R652-20-3000.2).

River Mile System and River Segments

One method of identifying features along rivers is by using river miles (RMs) as reference points. The RMs used in this MLP are based on the *Guide to the Colorado & Green Rivers in the Canyonlands of Utah & Colorado* (Martin and Whitis 2016). The starting point (RM 0) on the Colorado River is the gauging station at Lee's Ferry, located approximately 9 miles south of the Utah-Arizona border (outside of sovereign lands). RM numbers increase in the upstream direction on the Colorado River to the confluence of the Colorado and Green Rivers within Canyonlands National Park (hereafter referred to as The Confluence). At The Confluence, the RM numbering restarts at 0 and again increases in the upstream direction on both the Colorado River and the Green River. Commonly used river segment names, associated with RMs, are listed in Tables 1 and 2. RMs in this plan may be slightly edited from Martin and Whitis (2016) for continuity between river segments.

Table 1. Green River Mineral Leasing Plan River Segments and Associated River Miles

River Segment	River Miles	Segment Identification	Description (length)
Uinta Basin	317.7 to 215.8	G-1-UB	Border of Dinosaur National Monument to Sand Wash (101.9 miles)
Green River Valley	132.2 to 120.1	G-2-GRV	Swasey's rapid to Green River State Park (12.1 miles)
Labyrinth Canyon	120.1 to 46.7	G-3-LC	Green River State Park to the border of Canyonlands National Park (73.4 miles)

Note: River mile references are for management purposes only and may not represent precisely the ownership interests and/or fee title claimed by the State of Utah.

Table 2. Colorado River Mineral Leasing Plan River Segments and Associated River Miles

River Segment	River Miles	Segment Identification	Description (length)
Above Westwater	131.7 to 127.6	C-1-AW	Utah-Colorado border to the Westwater Ranger Station (4.1 miles)
Westwater Canyon Wilderness Study Area	127.6 to 113	C-2-WSA	River segment in the Westwater Canyon Wilderness Study Area (14.6 miles)
The Moab Daily	113 to 47.3	C-3-TMD	Bald Eagle Campground to the Potash boater access point (65.7 miles)

River Segment	River Miles	Segment Identification	Description (length)
Meander Canyon	47.3 to 31	C-4-MC	Potash boater access point to the border of Canyonlands National Park (16.3 miles)
Glen Canyon	176 to the Utah- Arizona border	C-5-GC	River segment beneath Lake Powell. This segment is below The Confluence; therefore, RM numbering for this segment is calculated from RM 0 at Lee's Ferry.

Note: River mile references are for management purposes only and may not represent precisely the ownership interests and/or fee title claimed by the State of Utah.

Management Authority of State and Federal Agencies Affecting Sovereign Lands

FFSL's management of sovereign lands is often affected by decisions made by adjacent or nearby landowners, especially other state and federal agencies. FFSL supports collaboration with adjacent landowners and agencies that have jurisdiction or management authority on the Green and Colorado Rivers to improve overall river management and decision making. A complete discussion of agencies with intersecting jurisdictions and regulatory authorities can be found in the *Final Green River Comprehensive Management Plan* (Green River CMP) (SWCA Environmental Consultants [SWCA] et al. 2020a) and in the *Colorado River Comprehensive Management Plan* (Colorado River CMP) (SWCA et al. 2020b). The following paragraphs briefly discuss several of the agencies and regulations that particularly affect FFSL's management of mineral leasing. In the event there is a change in any of the management practices specified below or implemented by any applicable agency, any mineral leasing or management practice described herein will be subject to review and revision.

U.S. Bureau of Land Management

Approximately 29% of the landownership within 50 feet of the Green River's banks and approximately 13% of the landownership within 50 feet of the Colorado River's banks is administered by the Bureau of Land Management (BLM). The BLM is responsible for the management of mineral resources on federal lands. The minerals on federal lands are divided into the following three categories, each subject to different laws and regulations (BLM 2019):

- Locatable minerals, subject to the Mining Law of 1872, as amended, which include gold, silver, copper, and other hard rock minerals
- Leasable minerals, subject to various Mineral Leasing Acts, which include coal and other commodities
- Saleable minerals, subject to the Materials Act of 1947, as amended, which include sand and gravel that are essential to construction and road building

The BLM also implements land management plans to guide resource decisions in the area. In the Uinta Basin, the BLM has completed the *Vernal Field Office Record of Decision and Approved Resource Management Plan* (Vernal FO RMP), published in 2008 (BLM 2008a). In the other areas of Green and Colorado River sovereign lands, the BLM has completed the *Price Field Office Record of Decision and*

Approved Resource Management Plan (BLM 2008b), the Moab Field Office Record of Decision and Approved Resource Management Plan (BLM 2008c), and the Monticello Field Office Record of Decision and Approved Resource Management Plan (BLM 2008d).

According to these management plans, all federal lands adjacent to the Green River from Canyonlands National Park north to the Uintah and Ouray Indian Reservation are withdrawn from mineral entry. Federal lands adjacent to the Green River in Dinosaur National Monument are also withdrawn from mineral entry. The federal lands adjacent to the Green River between the Uintah and Ouray Indian Reservation and Horseshoe Bend are managed as open to mineral entry but subject to either no surface occupancy or timing and controlled surface use stipulations. All other federal lands adjacent to the Green River in the Uinta Basin are managed as open subject to standard stipulations.

Nearly all of the federal lands adjacent to the Colorado River from Moab north to the Utah-Colorado border are withdrawn from mineral entry. Additionally, nearly all federal lands adjacent to the Colorado River from Moab and south to the Utah-Arizona border are also withdrawn from mineral entry, primarily because they fall within either Canyonlands National Park or the Glen Canyon National Recreation Area.

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) manages the Ouray National Wildlife Refuge, which includes a portion of Green River sovereign lands. In addition, the USFWS is responsible for protecting flora and fauna, including fish and migratory birds; complying with the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act of 1918; and protecting threatened, endangered, and candidate species found in and near the Colorado River as required by the Endangered Species Act of 1973 (ESA).

The USFWS is responsible for overseeing implementation of the ESA for four endangered fish: Colorado pikeminnow (*Ptychocheilus lucius*), bonytail (*Gila elegans*), razorback sucker (*Xyrauchen texanus*), and humpback chub (*Gila cypha*). In 1994, portions of the Green and Colorado Rivers in Utah were designated as critical habitat for Colorado pikeminnow, bonytail, razorback sucker, and humpback chub (USFWS 1994). Areas of critical habitat on sovereign lands are described in detail in the Green River CMP (SWCA et al. 2020a) and in the Colorado River CMP (SWCA et al. 2020b). Recovery plans have been approved for all four species.

The Upper Colorado River Endangered Fish Recovery Program is a partnership of local, state (including Utah), and federal agencies; water and power interests; and environmental groups working to recover the four species of endangered fish while allowing for water use and development. The recovery program involves restoring and managing stream flows and habitat; boosting wild, endangered fish populations with hatchery-raised fish; and reducing negative interactions with some species of nonnative fish. The recovery program sets goals to provide objective, measurable criteria for downlisting (change in status from endangered to threatened) and delisting (removal from ESA protection) the endangered fish.

U.S. Army Corps of Engineers

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) is responsible for regulating placement of fill material in the nation's waters, including the Green and Colorado Rivers. USACE's management responsibilities under the Clean Water Act are to protect the nation's aquatic resources from unnecessary adverse impacts.

Other Federal Agencies

Other federal agencies with some regulatory or management responsibility for resources in or adjacent to sovereign lands include the U.S. Bureau of Reclamation (USBR), the National Park Service (NPS), and the Bureau of Indian Affairs (BIA). The USBR manages, develops, and protects water and water-related resources. It operates 338 reservoirs and is the nation's largest wholesale water supplier (USBR 2018). The USBR operates Glen Canyon Dam on the Colorado River.

The NPS has management authority for minerals on lands adjacent to sovereign lands along the Green and Colorado Rivers, such as Dinosaur National Monument, Arches National Park, Canyonlands National Park, and Glen Canyon National Recreation Area.

The BIA has management authority for minerals on behalf of the Ute Indian Tribe, which occupies the Uintah and Ouray Indian Reservation. The Uintah and Ouray Indian Reservation boundaries include approximately 13 miles of sovereign lands on the Green River.

State Agencies

Several state agencies, most of them in the Department of Natural Resources, have management authority for resources associated with the Green and Colorado Rivers. These state agencies include the Utah Division of Wildlife Resources, Utah Division of Water Rights, Utah Division of Water Resources, Utah Division of Oil, Gas and Mining (DOGM), and Utah Division of State Parks and Recreation (DSPR). In addition, the State of Utah School and Institutional Trust Lands Administration (SITLA) manages tracts adjacent to sovereign lands in eastern Utah. The responsibilities of these state agencies are described in more detail in the Green River CMP (SWCA et al. 2020a) and in the Colorado River CMP (SWCA et al. 2020b).

Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (WSRA) was passed by Congress in 1968. The WSRA's purpose was to set aside "certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations" (16 United States Code 1271 et seq.). Rivers must be both eligible ("free-flowing" with one or more "outstandingly remarkable values") and suitable (whether designation is the best way to manage or

protect the eligible river corridor). Depending on the type and degree of human development associated with the river and adjacent lands (e.g., impoundments, shoreline development), eligible rivers are preliminarily classified as wild, scenic, or recreational.

After the eligibility and suitability determinations are complete, federal agencies can formally recommend designation to the Wild and Scenic River System. Congress must approve any rivers recommended by federal agencies for designation. A river authorized for study by Congress receives statutory protection under Public Law 90-542 Section 7(b), water resources projects; Section 8(b), land disposition; and Section 9(b), mining and mineral leasing. A river identified for study through a federal agency is not protected under the WSRA. Rather, protection of its outstanding remarkable values and other characteristics occurs through other agency decisions.

In March 2019, the President signed Senate Bill 47, the John D. Dingell, Jr. Conservation, Management, and Recreation Act into law. The Emery County Public Land Management Act of 2018 (the Emery County Act) was incorporated into this law. The Emery County Act amends the WSRA to include the following portions of the Green River: the 5.3-mile segment from the boundary of the Uintah and Ouray Indian Reservation south to the Nefertiti boater access point, as a wild river; the 8.5-mile segment from the Nerfertiti boater access point south to the Swasey's Landing boater access point, as a recreational river; and the 49.2-mile segment from Bull Bottom south to the county line between Emery and Wayne Counties, as a scenic river. Of these three segments, a small portion (less than 0.5 RM) of the Green River north of the Swasey's Landing boater access point (the Green River Valley segment near RM 132) and the segment from Bull Bottom south to the county line (the Labyrinth Canyon segment from approximately RM 47 to RM 93) are sovereign lands that have been adjudicated and were determined by the United States Supreme Court to be owned by the State of Utah.

The 2019 federal National Wild and Scenic River designations create implications for FFSL management of the sovereign lands lying below the Green River, especially in the Labyrinth Canyon segment. However, FFSL intends to work with the BLM, Grand County, and Emery County to define management roles, the sovereign land boundary along the river, and any other boundaries associated with the scenic designation. It is FFSL's position that the State retains complete ownership and managerial control over the bed of the Green River in the scenic Labyrinth Canyon segment.

None of the Colorado River is designated under the WSRA.

In addition, the BLM has identified portions of the Green and Colorado Rivers as suitable for recommendation into the National Wild and Scenic Rivers system and as eligible for designation (the initial step in the river assessment process prior to the determination of suitability). These suitable and eligible segments are described in the Green River CMP (SWCA et al. 2020a) and in the Colorado River CMP (SWCA et al. 2020b).

The Wilderness Act

The Wilderness Act was passed by Congress in 1964 and established the National Wilderness Preservation System. The Wilderness Act's purpose was to

assure than an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition (16 United States Code 1131 et seq.).

Wilderness is defined by the Wilderness Act as "an area where the earth and its community of life are untrammeled by man" and as "an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation" (16 United States Code 1131 et seq.). Under the Wilderness Act, wilderness characteristics include having outstanding opportunities for solitude or a primitive and unconfined type of recreation; having at least 5,000 acres of land or sufficient size to make practicable its preservation and use in an unimpaired condition; and having ecological, geological, or other features of scientific, educational, scenic or historical value.

The Wilderness Act initially immediately placed 54 areas into the National Wilderness Preservation System. The process for adding new lands to the National Wilderness Preservation System involves the Secretary of the Interior's classification of new lands and review of suitability before these findings are reported to the President. The President must then advise Congress of his/her recommendations with respect to the designation of new wilderness. Each recommendation of the President for designation as wilderness becomes effective by an act of Congress.

The Emery County Act, discussed in the previous section, designated 54,643 acres of land adjacent to the Labyrinth Canyon segment as wilderness and added it to the National Wilderness Preservation System. The new Labyrinth Canyon Wilderness will be managed by the BLM. The Desolation Canyon Wilderness was also added to the National Wilderness Preservation System under the Emery County Act. This designation includes 142,996 acres adjacent to the Green River, also to be managed by the BLM. Both wilderness areas are now withdrawn from all forms of appropriation under mining laws and are now closed to future mineral development.

Three Rivers Withdrawal

In September 2004, then—Secretary of the Interior, Gale Norton, signed the Three Rivers Withdrawal, which became effective on October 6, 2004 (Wait 2004). The Three Rivers Withdrawal withdrew nearly 200 miles of public lands river corridor along portions of the Colorado, Dolores, and Green Rivers, including the Colorado River Special Recreation Management Area, from the locating of any new hard rock mining claims.

Brief History of Exploration and Mineral Development on the Green and Colorado Rivers

The Green and Colorado Rivers have played a prominent role in Utah's history beginning with early explorers. The earliest Spanish explorers named the Green River "Rio de San Buenaventura" and mapped it as flowing west to the Pacific from northern Utah, a mistake that was corrected by John C. Fremont's explorations from 1843 to 1844. The Green River was used by early American fur trappers who referred to it as the Spanish River, Colorado River of the West, and Seeds-Kee-Dee Agie. William Ashley established the name as the Green River, using the name given it (Rio Verde) by a party of New Mexican fur trappers he met in 1825 (Webb 1994).

The Green River was navigated by William Ashley from southern Wyoming to the Uinta Basin in 1825, followed by numerous trips by other fur trappers before the famous exploration of the Green and Colorado Rivers by John Wesley Powell in 1869 and 1871 (Webb 1994). Powell explored the Green and Colorado Rivers from Green River, Wyoming, to the mouth of the Virgin River in 1869 and 1871 (Webb 1994). During the second expedition in 1871, Powell and his crew provided the scientific and descriptive observations that outlined the importance of the rivers for the western region—remoteness and inaccessibility in many reaches of the rivers; the geology, natural history, archaeological sites; and water resources for irrigation and settlement.

Robert Brewster Stanton led the next exploration expedition along the Colorado River in 1889. In contrast to Powell's explorations, Stanton was interested in the economic potential of the rivers. Stanton's party embarked from Green River, Utah, with the intent of surveying the Colorado River for a railroad route through the canyons of the Colorado. Stanton was also interested in the mineral potential along the Colorado River and staked several mining claims during his two expeditions (Webb 1994).

In his account of the 1869 Powell expedition, Jack Sumner had noted the presence of "flour" gold in the gravel bars of the Colorado River from the mouth of the Dirty Devil River to Lee's Ferry (Stanton 1982). Several others prospected for this gold, with the largest operation set up by Hoskaninni Mining Company from 1901 to 1902. Stanton was the engineer for this project, which was a considerable financial failure (Webb 1994). From these earliest mining developments came the "giant sluice" theory—that the rivers drained large areas rich in mineral resources, washing down in particular flour gold.

The first oil well in Utah was drilled close to the town of Green River and adjacent to the Green River in 1891 (Gurgel et al. 1983). This initial well proved unproductive and was soon plugged and abandoned. Oil seeps were noted along the San Juan River in 1883 by E. L. Goodridge, and he drilled a "gusher" well in 1908. This was the discovery well for the Mexican Hat field, adjacent to and within the meander area of the San Juan River (Utah Geological Association 1993). Intense prospecting for oil along the Colorado River below Moab and the San Juan River began in the 1920s (Webb 1994).

MINERAL RESOURCES ON GREEN AND COLORADO RIVER SOVEREIGN LANDS

Mineral Resources Definitions

According to Utah Administrative Code R652-20-200, mineral substances are classified as follows:

- Clay minerals: kaolin, bentonite, ball clay, fire clay, fuller earth, common clay, and shale.
- Metalliferous minerals: aluminum, antimony, arsenic, beryllium, bismuth, chromium, cadmium, cerium, columbium, cobalt, copper, fluorspar, gallium, gold, germanium, hafnium, iron, indium, lead, mercury, manganese, molybdenum, nickel, platinum, group metals, radium, silver, selenium, scandium, rare earth metals, rhenium, tantalum, tin, thorium, tungsten, thallium, tellurium, vanadium, uranium, ytterbium, and zinc.
- Coal: black or brownish-black solid fossil fuel that has been subjected to the natural processes of coalification and which falls in the classification of coal by rank: I anthracite, II bituminous, III sub-bituminous, IV lignitic.
- Oil, gas, and hydrocarbon: oil, natural gas, elaterite, ozocerite, and other hydrocarbons (whether found in solid, semi-solid, liquid, vaporous, or any other form) including tar, bitumen, asphaltum, maltha, and other gases. Does not include coal, oil shale, or gilsonite.
- Oil shale: any sedimentary rock containing kerogen.
- Potash: chlorides, sulfates, carbonates, borates, silicates, and nitrates of potassium.
- Phosphate: any phosphate rock containing one or more phosphate minerals such as calcium phosphate, including all phosphatized limestones, sandstones, shales, and igneous rocks.
- Gypsum: alabaster, anhydrite, gypsite, satin spar, and selenite.
- Gilsonite.
- Building stone and limestone: flagstone, granite, quartzite, sandstone, slate, marble, travertine, dolostone, and limestone whether dimensioned crushed, or calcined.
- Industrial sands: abrasive sands, filler sands, foundry sands, frac sands, glass sands, lime sands, magnetic sands, silica sands, and other uncommon sands used in industrial applications.
- Gemstone and fossil: agate, amber, beryl, calcite, chert, coral, corundum, diamond, feldspar, garnet, geodes, jade, jasper, olivine, opal, pearl, quartz, septarian nodules, spinel, spodumene, topaz, tourmaline, turquoise, and zircon; and coquina, petrified wood, trilobites, and other fossilized flora and fauna.
- Volcanic material: lava rock; volcanic pyroclastic material including ash, blocks, bombs, and tuff; volcanic glass material including perlite, pitchstone, pumice, scoria, and vitrophyre.

Oil and Gas Resources

Currently, all producing oil and gas fields that overlap or are adjacent to sovereign lands on the Green River are in the Uinta Basin and include the following geologic formations: Uinta Formation, Green River Formation, Wasatch Formation, Mesaverde Group, Dakota Sandstone, and Frontier Formation (Wood and Chidsey 2015). Oil and gas fields adjacent to or overlapping sovereign lands on the Green River in the Uinta Basin include Horseshoe Bend, Brennan Bottom, Three Rivers, Natural Buttes, West Willow Creek, Pariette Bench, and Uteland Butte. There is also an area adjacent to the Green River near the border of Carbon and Grand counties that is likely underlain in part by scattered, lean oil-impregnated rock (Gurgel et al. 1983).

The Colorado River overlays part of the Paradox Basin, which contains areas of high occurrence potential for oil and gas. However, there are two locations with oil and gas fields (Kane Creek and Moab) adjacent to sovereign lands on the Colorado River (Wood and Chidsey 2015). Both areas are between Arches National Park and Canyonlands National Park, and both overlay the Pennsylvanian Paradox Formation. These fields occur along The Moab Daily and Meander Canyon river segments. The Moab field is not currently being developed but is actively used as a gas storage structure where gas is either injected or extracted depending on economic conditions. There are nine Kane Creek oil fields (five currently producing, one shut-in, and three abandoned) and one abandoned Leadville field within 10 miles of the Colorado River. There are also several dry wells along the Colorado River southeast of Dead Horse Point State Park that were plugged and abandoned in 1967 after minimal production (DOGM 2018).

Other Mineral Resources

Other mineral resources that underlay or are adjacent to sovereign lands on the Green River include the following:

- Uranium occurrences south of the town of Green River (along the Labyrinth Canyon river segment), as well as a uranium operation and occurrences near Ouray (along the Uinta Basin river segment) (Gloyn et al. 2005; Utah Geological Survey 2018a)
- Deeply buried Cretaceous strata, possibly coal-bearing, stretching northeast from the Book Cliffs across the Uinta Basin (along the Uinta Basin river segment) (Gurgel et al. 1983)
- Cretaceous outcrops with thin coal seams that overlap a section of the Labyrinth Canyon river segment south of the town of Green River (Gurgel et al. 1983)
- A gold mining operation southeast of the town of Green River (along the Labyrinth Canyon river segment), as well as two small, inactive placer gold operations along the Uinta Basin river segment (Bon and Heuscher 2008)
- Several small, inactive sand and gravel operations along the Uinta Basin river segment (Bon and Heuscher 2008; Utah Geological Survey 2018b)

- Four small tar sands mining operations along the Uinta Basin river segment near the town of Vernal (Bon and Heuscher 2008)
- A landscape rock mining operation along the Uinta Basin river segment near the town of Vernal (Bon and Heuscher 2008)
- Precious and base metal occurrences in the northern portion of the Uinta Basin along the Uinta Basin river segment, northeast of Castle Peak (Doelling and Tooker 1983)
- Phosphate north and east of Vernal, Utah (Uinta Basin river segment)
- Bitumen deposits within Uintah and Ouray Indian Reservation and near Pariette Draw (Uinta Basin river segment)
- Gilsonite veins that trend north to southeast across the Uinta Basin (Uinta Basin river segment)

There is a moderate potential for the occurrence of economically valuable coal deposits within the Uinta Basin, but it is unlikely that coal exploration or development will occur in the foreseeable future because of the lack of demand and the generally low-grade quality of the coal (BLM 2008a).

Other mineral resources that underlay or are adjacent to sovereign lands on the Colorado River include the following:

- Uranium mining operations and occurrences between Arches National Park and Canyonlands National Park, as well as northeast of Lake Powell near the Glen Canyon segment (Gloyn et al. 2005; Utah Geological Survey 2018a)
- A large potash mining operation southwest of Moab in a known potash leasing area (Bon and Wakefield 2008)
- Several small, active and inactive sand and gravel operations (Utah Geological Survey 2018b)
- Precious and base metal occurrences northeast and southwest of Moab, as well as
 occurrences under most of Lake Powell that include three small, inactive placer gold
 operations (Doelling and Tooker 1983; Utah Geological Survey 2018b)

Recreational Mining

Recreational mining includes gold panning, dredging, and sluicing activities. Gold placers have been found on the Green River from Flaming Gorge down to Horseshoe Bend (Utah Geological Survey 2018b). Gold placers have also been found from the mouth of the Dolores River south to the Amasa Back bend of the Colorado River west of Moab. Most placers on the Colorado River were located from the Dirty Devil River south to the Utah-Arizona border and are now under Lake Powell (Utah Geological Survey 2018b).

Recreational panning is defined as using non-mechanized equipment such as a pan, sluice box, or pick and shovel that does not disturb the earth above the water line or outside a dry streambed.

Recreational dredging is defined as using a vacuum or suction dredge with an intake diameter of up to 4 inches and having a rating of up to 12 horsepower, or using hand-operated sluice equipment and related tools. The Green River and Colorado River are withdrawn from all recreational mining including recreational dredging, sluicing activities, and recreational panning because portions of both rivers have been declared critical habitat for federally listed endangered fish species.

MINERALS LEASING ON GREEN AND COLORADO RIVER SOVEREIGN LANDS

Terms and Definitions

FFSL uses the following terms and definitions in the mineral leasing process:

- Occupancy: Any temporary or permanent fluid, mineral, or hydrocarbon resource activity
 planned or conducted on both surface and/or surface estate of designated state and
 sovereign lands.
- No surface occupancy (NSO): Any use or occupancy of either the surface area or surface estate (whether temporary or permanent) is prohibited within specifically described lands for fluid, mineral, or hydrocarbon exploration and/or development. An NSO designation can also mean natural resource commercial exploration and/or development is prohibited to protect separately identified natural resource values.
- Stipulation: A provision that modifies standard mineral exploratory and development lease rights and is attached and incorporated into any mineral lease issued that involves, encumbers, and is appurtenant to state and sovereign lands. For example, if lands are designated as NSO, a mineral lease for those lands must contain an NSO stipulation.
- NSO stipulation: NSO stipulations prohibit surface occupation for development and exploration of mineral resources but allow the subsurface resources to be legally available so that they can be accessed by means other than occupying the surface. Leasing an area with an NSO designation, rather than declaring it "unavailable" or "not administratively available" for leasing, may allow development through directional drilling, if adjacent lands are suitable for surface occupancy. While directional drilling and any resulting production are cost prohibitive and often limited to shale plays, leasing with an NSO stipulation offers some exploration and development opportunities on lands where surface occupancy is prohibited. Leasing with an NSO stipulation can meet Utah's mineral policy directive by encouraging development of mineral resources while also protecting recreational resource values.

General Leasing Rules

Utah Administrative Code R652-20 provides rules for the leasing of mineral resources on sovereign lands. Some of the key rules are summarized below:

- Mineral leases on Green and Colorado River sovereign lands are limited to no more than 2,560 acres or four sections. In general, no mineral lease will be issued for a tract less than a quarter-quarter section or surveyed lot.
- FFSL may require lessees to provide a cultural, paleontological, or biological survey on lands under mineral lease and to be responsible for reasonable mitigative actions as specified by FFSL.
- The lessee or operator shall keep a log of accumulated geologic data for the land area described in the lease. This log should show the formations encountered and any other geologic information reasonably required by lessor and shall be available to FFSL upon request. A copy of the log, as well as any data related to exploration drill holes, shall be deposited with FFSL upon termination of the lease.
- The primary term for a lease is generally 10 years.
- The term of all mineral leases included in any cooperative or unit plan of oil and gas
 development or operation in which FFSL has joined shall be extended automatically for the
 term of the unit or cooperative agreement.
- If drilling operations are being diligently pursued on the leased premises at the end of the term, including any valid extension of any oil and gas lease, the lessee can request continuation of the lease based on due diligence. Upon written application by lessee and satisfactory showing of due diligence in execution of drilling operations, an extension rider will be issued by FFSL. Application for the extension rider shall be filed by the lessee within 30 days prior to expiration of the fixed term of any valid extension of the lease.
- Prior to commencement of any operations on a state mineral lease, the lessee or designated operator shall comply with all DOGM requirements.

Sovereign Land Leasing Classification

All sovereign lands on the Green and Colorado Rivers are classified as NSO (Figures 2, 3, and 4). All mineral leases issued on sovereign land will contain an NSO stipulation.

As a result of the NSO stipulation, development of oil and gas resources can only take place if adjacent lands are leased and the resources are legally developed through directional drilling. This development is contingent on applicable land management agency decisions (e.g., DOGM, BLM, SITLA) or the initiative of private landowners.

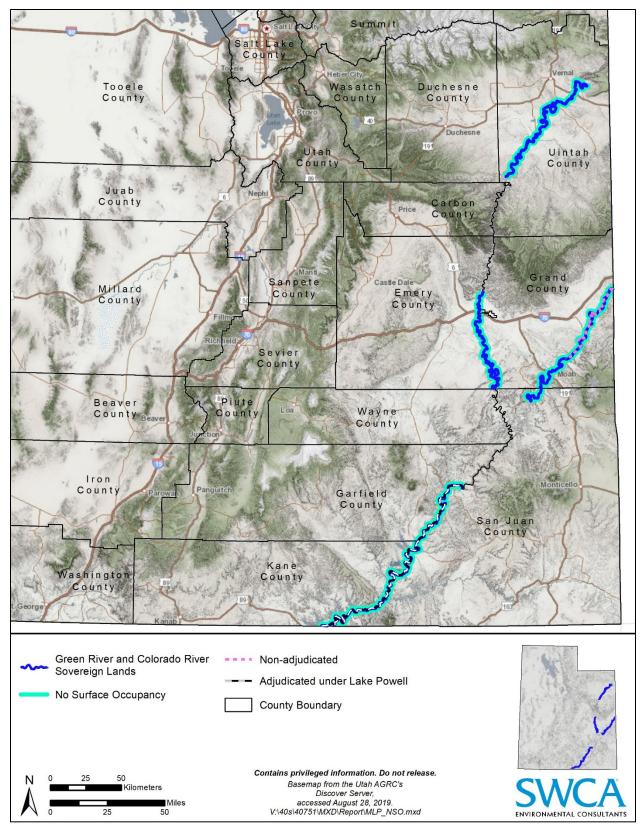


Figure 2. Sovereign lands mineral leasing classification.

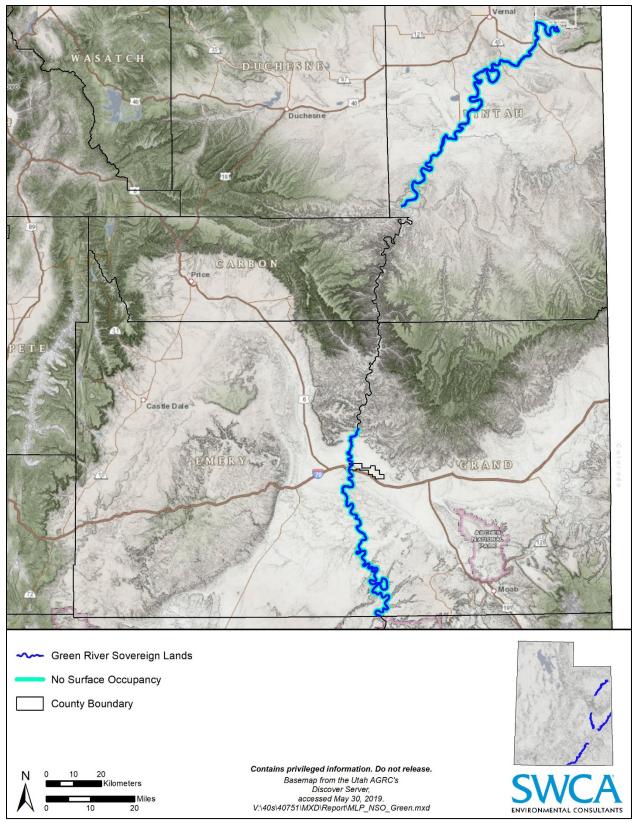


Figure 3. Green River sovereign lands mineral leasing classification.

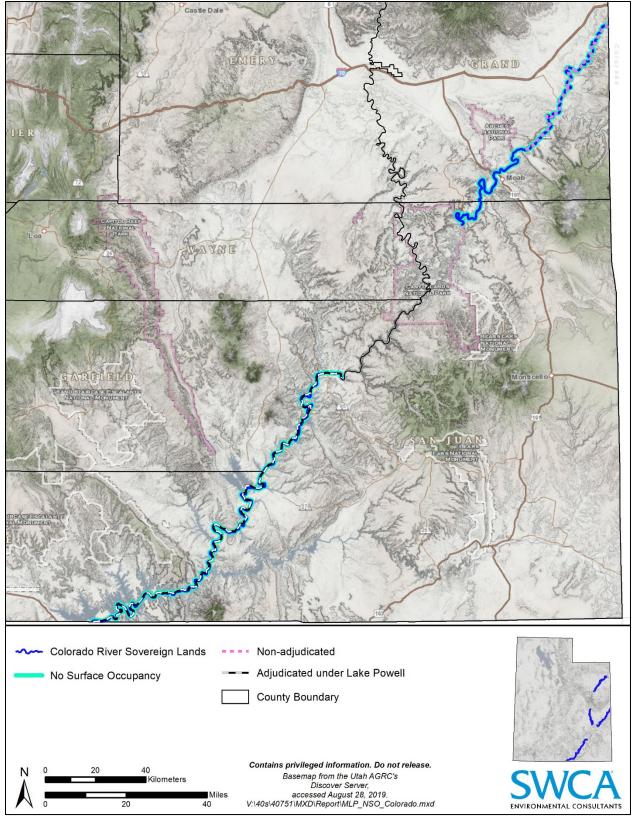


Figure 4. Colorado River sovereign lands mineral leasing classification.

Ownership Issues

Ownership issues that arise with adjacent, private, and public landowners can be settled and/or adjudicated on a case-by-case basis as boundary issues arise or as management decisions dictate or warrant.

Green River

The longitudinal scope and extent of Utah's ownership of the bed of the Green River were formally adjudicated in decisions issued by the United States Supreme Court in 1931² and in 1965.³ The 1931 decision decreed the Labyrinth Canyon segment of the Green River to be navigable

where the river crosses the township line between townships 23 and 24 south, range 17 east, Salt Lake Base and Meridian, to the confluence of the Grand (Colorado) River, is now and at all times on and after January 4, 1896, has been, a navigable river, and the title to the bed thereof vested in the State of Utah upon its admission to the Union. (283 U.S. 801 [1931]).

The complicated history surrounding the expanding and retracting boundaries of the Uintah and Ouray Indian Reservation along the Green River prompted more litigation, and the 1965 decision provided certainty regarding tribal and state ownership of the upper Green River. The 1965 decision adjudicated the remaining longitudinal length of the Green River on a segment-by-segment basis. The District Court determined the segments of the Green River located in Dinosaur National Monument and in Desolation and Gray Canyons to be non-navigable. However, the Green River was determined to be navigable as it flowed out of Dinosaur National Monument (RM 312 above The Confluence) and across the Uinta Basin to Sand Wash (RM 212.7 above The Confluence), and as it emerged from Gray Canyon (RM 129 above The Confluence) across the San Rafael Desert to RM 95.

For purposes of mineral leasing, the relevant river segment is the Green River section flowing across the Uinta Basin (from RM 312 to the mouth of Sand Wash) because the shale formations in the basin are experiencing increased oil and gas development prompted by advances in directional drilling and hydraulic fracturing techniques. Along this segment of the Green River, the State of Utah, through FFSL, has been properly issuing mineral leases for the state lands and corresponding mineral estate under the riverbed of the Green River. FFSL intends on continuing to issue no surface occupancy leases along the navigable Uinta Basin segment of the Green River while consulting and cooperating with the Ute Indian Tribe on any subsequent mineral leases involving state lands.

² United States v. State of Utah, 283 U.S. 801 (1931).

³ Civil No. C-201-62 (D. Ut. 1965) (unpublished decision).

⁴ In addition to the 1965 decision adjudicating title to the State of Utah on the navigable stretches of the Green River, Utah's ownership of those sections flowing over the Uintah and Ouray Indian Reservation is further supported by the United States Supreme Court decision in *Montana v. United States*. 450 U.S. 544 (1981), which held that creation of the Crow Indian Reservation pre-statehood did not trump the strong presumption against title to the Big Horn River vesting with the state upon admission to the Union.

Colorado River

Portions of the Colorado River have been adjudicated in terms of ownership of the submerged lands constituting the bed of the river, but a significant stretch of the Colorado River remains unadjudicated in terms of title. Specifically, the section of the Colorado River from the Colorado border south to Castle Creek (referred to in this section as the Upper Colorado) has not been adjudicated in terms of ownership, whereas "the Colorado river from the mouth of Castle creek (about 14 miles above the town of Moab) to the boundary line between Utah and Arizona, 296 miles (including the portion of the Colorado river above the mouth of the Green river which had formerly been known as the Grand river)" was adjudicated and held navigable for title purposes by the United States Supreme Court in 1931 in *United States v. Utah* (283 U.S. 64). In other words, the Court determined the State of Utah has title to the bed of the Colorado River in this section. The southern portion of this adjudicated section of the Colorado River is now submerged under Lake Powell. Because the State of Utah retains title to the bed of the river submerged under Lake Powell, it is anticipated the State of Utah and the United States will have to negotiate alternate resolution for this submerged segment of the Colorado River.

The United States is the owner of most of the upland property adjacent to the Upper Colorado. ⁵ To date, neither the United States nor a private landowner has initiated litigation to determine riverbed ownership within this unadjudicated section. Several reports issued by the BLM contain findings of navigability along the Upper Colorado. ⁶

The State of Utah, through FFSL, has not, to date, initiated any proceedings to adjudicate title to the Upper Colorado riverbed, primarily due to title adjudication priorities on other sovereign lands. FFSL believes recent precedent issued by the United States Supreme Court in 2012 in *PPL v. Montana* (565 U.S. 576) and an analysis of historical data and geomorphology present solid legal and factual grounds to claim ownership of the Upper Colorado riverbed. FFSL is currently exploring procedural options to formally adjudicate ownership.

Because this section of the Colorado River has not yet been adjudicated, interim management of the riverbed will be accomplished through cooperation with the federal government. FFSL is working to complete a temporary memorandum of understanding (MOU) with the BLM, the agency responsible for managing the federal land adjacent to the river. The MOU will govern cooperative management of the Upper Colorado section of the river from bank to bank during the pendency of adjudication. Until the MOU is in place, FFSL will manage the Upper Colorado section of the river in a way that does not conflict with current BLM management of adjacent land. Management goals and objectives in the Colorado River CMP (SWCA 2020b) will be used to guide joint management and will ensure consistent management along all five river segments. In the event an MOU is negotiated and executed, FFSL will amend the Colorado River CMP to include the terms of the MOU.

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⁵ In addition to the United States, there are approximately 23 private owners of land parcels adjacent to the Upper Colorado.

⁶ Compare the conclusion of Mary G. von Koch on page 19 of the Navigability Report of the Upper Colorado and Lower Dolores Rivers Within Utah (von Koch 1987) that the Upper Colorado River was navigable except for the "section of the Colorado River known as Westwater Canyon and starting at Westwater Creek and ending 12.8 miles downstream at Cottonwood Creek" with the conclusion on page 21 in the Navigability Report of the Upper Colorado and Lower Dolores Rivers (Anonymous n.d. [1983]) that "in review of the history of the subject rivers and reports pre-taining [sic] to waterflow, topography, and general characteristics and in review of precedent court cases there appears no basis for a finding of navigability of the Upper Colorado and the Lower Dolores Rivers" (for purposes of issuing hydrocarbon and metalliferous leases).

If and when ownership is formally adjudicated and it is determined the State of Utah holds title to the unadjudicated section or a portion of this section, FFSL will amend the Colorado River CMP to reflect its ownership and management of the riverbed.

Mineral Leasing Application Process

FFSL is the executive authority for the management of sovereign lands and is required to prescribe standards and conditions for the authorization and development of surface resources on sovereign lands. Mineral leases issued by FFSL must be in compliance with state law, administrative rules, and the Public Trust Doctrine and must adhere to multiple-use, sustained-yield principles. Each mineral lease must also comply with this MLP. Figure 5 demonstrates FFSL's mineral leasing process.

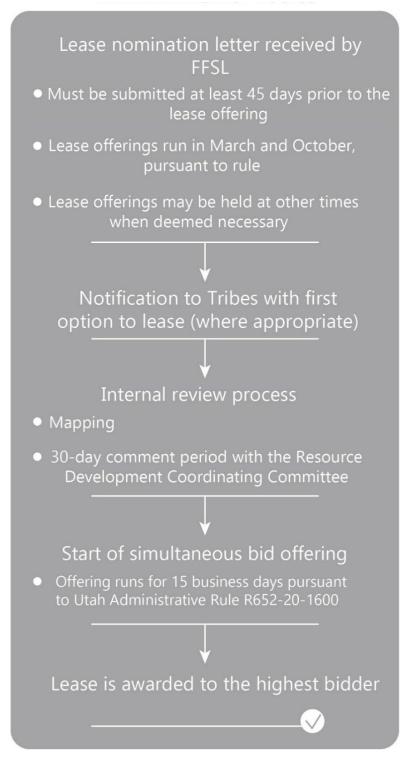


Figure 5. FFSL's mineral leasing process.7

⁷ This diagram is for illustrative purposes only. FFSL follows all applicable legal doctrines, statutes, and regulations for mineral leasing.

Royalty Rates and Revenues

Currently, and until royalty rates are adjusted pursuant to rulemaking, revenues generated by mineral leases on sovereign lands in the Green and Colorado Rivers are modest compared to mineral leases on other sovereign lands in Utah, such as Great Salt Lake. The minimum annual rental on any mineral leases on sovereign lands is \$20 (Utah Administrative Code R652-20-1000[1][C]). Annual royalties vary for oil and gas, other hydrocarbon substances, and mineral commodities on sovereign lands. Table 3 lists the royalty rates for oil and gas, coal, and other mineral commodities on sovereign lands in Utah.

Table 3. Royalty Rates for Oil and Gas and Mineral Commodities

Commodity	Royalty Rate
Oil	12.5%*
Gas	12.5%*
Sulfur	12.5%*
Other hydrocarbon substances	6.25%*
Coal	8%
Oil shale	5% [†]
Asphaltic/bituminous sands	7% [‡]
Gilsonite	10%
Fissionable metallic minerals	8%
Non-fissionable metallic minerals	4%
Gemstone/fossil	10%§
Magnesium	1.5%
Salt	\$0.50/dry ton
Phosphate	5%
Potash and associated minerals	5%
Gypsum	5%
Clay	5%
Geothermal resources	10%
Building stone/limestone	5% (except 2% for calcined lime)
Volcanic materials	5%
Industrial sands	5%

Source: Utah Administrative Code R652-20-1000.

Note: Royalty rates are published for reference purposes and are subject to change. Current royalty rates may be found in the applicable regulations.

^{*} During the first 10 years of production and increasing annually thereafter at the rate of 1% to a maximum of 16.7%.

[†] 5% during the first 5 years of production and increasing annually thereafter at the rate of 1% to a maximum of 12.5%.

 $^{^{\}scriptsize \pm}$ May be escalated after the first 5 years of production at the rate of 1% per year to a maximum of 12.5%.

[§] On January 1, 2001, the royalty rate per ton started being adjusted annually by the Producer Price Index for Industrial Commodities as provided under R652-20-1000(e) using 1997 as the base year.

Areas of Potential Resource Conflicts

Reasonably foreseeable resource conflicts along the Green and Colorado Rivers may affect the potential for mineral leasing. Table 4 lists the some of the potential resource conflicts by river segment.

Table 4. Potential Resource Conflicts and Upland Ownership Patterns by River Segment

River Segment	Potential Resource Conflicts	Upland Ownership Patterns			
Green River					
Uinta Basin	Dinosaur National Monument Stewart Lake Wildlife Management Area Ouray National Wildlife Refuge BLM areas of critical environmental concern Potential wild and scenic river segments Boater access points Cultural resources Wetland and riparian areas Agricultural areas ESA-listed fish and plant species	Federal lands managed by NPS, BLM, and USFWS Private ownership Individual Ute allotments Tribal lands managed by the Ute Indian Tribe and BIA State lands			
Green River Valley	Potential wild and scenic river segments Wild and scenic river (recreational) Wilderness area National scenic and historic trails LR Thayn walk-in-access area Boater access points Cultural resources Wetland and riparian areas Agricultural areas Tusher Diversion Dam ESA-listed species City of Green River's plan to develop a river walk trail system	Federal lands managed by BLM Significant private ownership City of Green River			
Labyrinth Canyon	Canyonlands National Park BLM areas of critical environmental concern Potential wild and scenic river segments Wild and scenic river segment (scenic) Adjacent wilderness study area Wilderness area Lower San Rafael River Wildlife Management Area Boater access points Cultural resources Wetland and riparian areas ESA-listed species Recreation values Scenic values	Federal lands managed by BLM and NPS State lands Private ownership			

River Segment	Potential Resource Conflicts	Upland Ownership Patterns
Colorado River		
Above Westwater	Potential wild and scenic river segments Boater access point Wetland and riparian areas ESA-listed species Recreation values Scenic values Unadjudicated ownership	Federal lands managed by BLM Significant private ownership
Westwater Canyon Wilderness Study Area	Adjacent wilderness study area Potential wild and scenic river segments Boater access point Cultural resources Wetland and riparian areas ESA-listed species Recreation values Scenic values Unadjudicated ownership	Federal lands managed by BLM Private ownership
The Moab Daily	Arches National Park Scott M. Matheson Wetlands Preserve Cottonwood Bench Ranch Conservation Easement BLM areas of critical environmental concern Potential wild and scenic river segments Adjacent wilderness study areas National scenic and historic trails Boater access points Cultural resources Wetland and riparian areas Agricultural areas ESA-listed plant and wildlife species ESA-listed species Recreation values Scenic values	Federal lands managed by NPS and BLM Private ownership State lands Nature Conservancy and state wildlife management areas City of Moab
eander Canyon Canyonlands National Park BLM areas of critical environmental concern Important bird area Potential wild and scenic river Boater access point Cultural resources Wetland and riparian areas ESA-listed species Recreation values Scenic values		Federal lands managed by BLM and NPS State lands

River Segment	Potential Resource Conflicts	Upland Ownership Patterns
Glen Canyon	Glen Canyon National Recreation Area Important bird area Boater access points Cultural resources Wetland and riparian areas ESA-listed species Recreation values Scenic values Stranded and/or submerged title	Federal lands managed by the NPS Navajo Nation lands

MANAGEMENT DIRECTION

The goals and objectives below reflect the intention of FFSL to protect and sustain the Pubic Trust resources while providing for their use. Each goal is supported by objectives that can be used to achieve the goal. Table 5 presents management goals and objectives for the leasing of oil and gas resources on sovereign lands. Table 6 presents management goals and objectives for the leasing of mineral resources on sovereign lands.

Table 5. Oil and Gas Resources Goals and Objectives

Oil and Gas Resources Goal 1: Balance oil and gas resource development on sovereign lands while minimizing negative impacts, protecting Public Trust resources, and protecting the natural environment.

Objective: Foster coordination and cooperation in the management of all resources on the Green and Colorado Rivers with oil and gas applicants, and with local, state, federal, and tribal agencies with management authority adjacent to or on the Green and Colorado Rivers.

Objective: Enforce all applicable regulations, mitigation, and best management practices during oil and gas operations and appropriate reclamation after developments cease.

Objective: Coordinate closely with DOGM for leases adjacent to Class 6 areas.

Objective: Adhere to the goals and objectives in the Green River CMP (SWCA et al. 2020a) and in the Colorado River CMP (SWCA et al. 2020b) when evaluating lease applications.

Table 6. Mineral Goals and Objectives Common to All Classes

Mineral Resources Goal 1: Balance mineral resource development on sovereign lands while minimizing negative impacts, protecting Public Trust resources, and protecting the natural environment.

Objective: Foster coordination and cooperation in the management of all resources on the Green and Colorado Rivers with mineral applicants, and with local, state, federal, and tribal agencies with management authority adjacent to or on the Green and Colorado Rivers.

Objective: Enforce all applicable regulations, mitigation, and best management practices during mineral resource development and extraction operations and appropriate reclamation after projects cease.

Objective: Coordinate closely with permitting agencies for leases adjacent to Class 6 areas.

Objective: Adhere to the goals and objectives in the Green River CMP (SWCA et al. 2020a) and in the Colorado River CMP (SWCA et al. 2020b) when evaluating lease applications.

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