

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426
July 25, 2018

OFFICE OF ENERGY PROJECTS

Project No. 10661-050 – Michigan
Constantine Hydroelectric Project
Indiana Michigan Power Company

**Subject: Scoping Document 1 for the Constantine Hydroelectric Project
(FERC No. 10661-050)**

To the Parties Addressed:

The Federal Energy Regulatory Commission (Commission) is currently reviewing the Pre-Application Document filed June 4, 2018, by Indiana Michigan Power Company (I&M Power) for relicensing the Constantine Hydroelectric Project (Constantine Project) (FERC No. 10661). The Constantine Project is located on the St. Joseph River in the Village of Constantine in St. Joseph County, Michigan. The project does not occupy federal land.

Pursuant to the National Environmental Policy Act of 1969, as amended, Commission staff intends to prepare an environmental assessment (EA), which will be used by the Commission to determine whether, and under what conditions, to issue a new license for the project. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed, and that the EA is thorough and balanced.

We invite your participation in the scoping process and are circulating the enclosed Scoping Document 1 (SD1) to provide you with information on the Constantine Project. We are also soliciting your comments and suggestions on our preliminary list of issues and alternatives to be addressed in the EA. We are also requesting that you identify any studies that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the EA for the project.

We will hold two scoping meetings for the Constantine Project to receive input on the scope of the EA. An evening meeting will be held at 6:30 p.m. on Tuesday, August 28, 2018, at the Village Hall, 115 White Pigeon Street, Constantine, Michigan, 49042. A daytime meeting will be held at 9 a.m. on Wednesday, August 29, 2018, at the same location as the evening meeting. We will also visit the project facilities on

August 28, 2018, beginning at 9:00 a.m. at the Constantine Project powerhouse, 155 North Washington Avenue, Constantine, Michigan, 49042, and participants must RSVP by August 17, 2018, to visit the project facilities. Section 2.2, *Comments, Scoping Meetings, And Environmental Site Review* of the scoping document contains information on how to RSVP.

We invite all interested agencies, Tribes, non-governmental organizations, and individuals to attend one or both of these meetings. Further information on our environmental site review and scoping meetings is available in the enclosed SD1.

SD1 is being distributed to both I&M Power's distribution list and the Commission's official mailing list (see section 10.0 of the enclosed SD1). If you wish to be added to, or removed from, the Commission's official mailing list, please send your request by email to efiling@ferc.gov, or mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, D.C. 20426. All written or e-mailed requests must specify your wish to be added to, or removed from, the mailing list, and must clearly identify the project name and FERC project number (i.e., Constantine Hydroelectric Project, P-10661-050) on the first page.

Please review SD1 and, if you wish to provide comments, follow the instructions in section 6.0, *Request for Information and Studies*. If you have any questions about SD1, the scoping process, or how Commission staff will develop the EA for this project, please contact Lee Emery at (202) 502-8379, or lee.emery@ferc.gov. Additional information about the Commission's licensing process and the Constantine Project may be obtained from our website, <http://www.ferc.gov>.

Enclosure: Scoping Document 1

SCOPING DOCUMENT 1

CONSTANTINE HYDROELECTRIC PROJECT
(FERC NO. 10661-050)

MICHIGAN



Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Licensing
Washington, D.C.

July 2018

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SCOPING DOCUMENT 1

Constantine Hydroelectric Project No. 10661-050

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),¹ may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On June 4, 2018, Indiana Michigan Power Company (I&M Power) filed a Pre-Application Document (PAD) and Notice of Intent to seek a new license for the Constantine Hydroelectric Project (Constantine Project or project) (FERC Project No. 10661).²

The Constantine Project is located at river mile 101.4 on the St. Joseph River in the Village of Constantine, St. Joseph County, Michigan (see figure 1). The project does not occupy federal land.

I&M Power proposes to continue operating the project as a run-of-river facility. The powerhouse for the Constantine Project contains four generating units with a total installed capacity of 1.2 megawatts (MW). The average annual generation is 4,933 megawatt-hours. A more detailed description of the project is provided in section 3.0, *Proposed Action and Alternatives*.

¹ 16 U.S.C. §§ 791(a)-825(r).

² The current license for the Constantine Project was issued on October 20, 1993, with an effective date of October 1, 1993, for a term of 30 years, and expires on September 30, 2023.

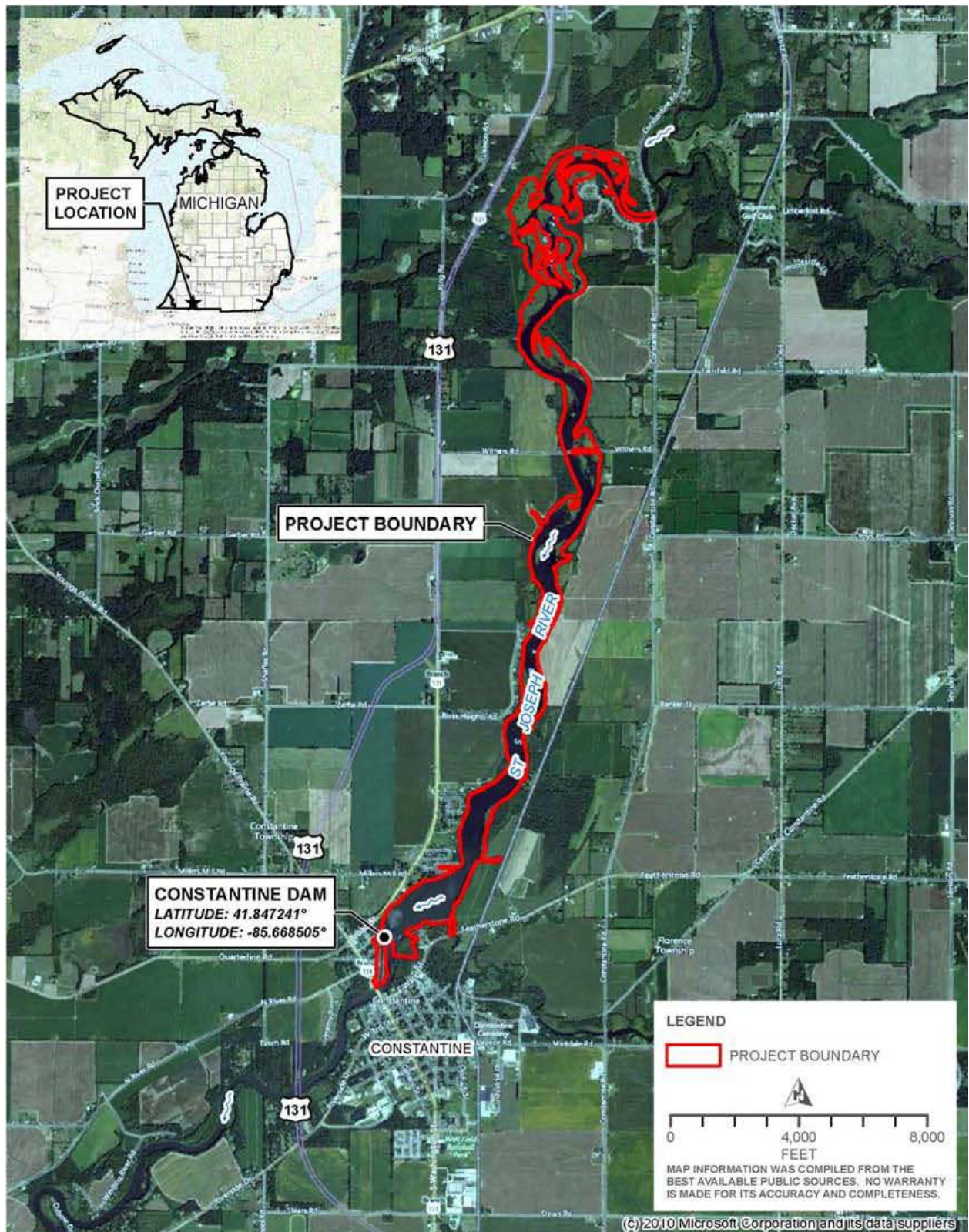


Figure 1. Constantine Project overall location map (Source: I&M Power, 2018).

The National Environmental Policy Act of 1969 (NEPA),³ the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of relicensing the Constantine Project as proposed, and also consider reasonable alternatives to the licensee's proposed action. At this time, we intend to prepare an environmental assessment (EA) that describes and evaluates the probable effects, including an assessment of site-specific and cumulative effects, if any, of the proposed action and alternatives. The EA preparation will be supported by a scoping process to ensure that all pertinent issues are identified and analyzed.

Although our current intent is to prepare an EA, there is a possibility that an environmental impact statement (EIS) may be required. The scoping process will satisfy the NEPA scoping requirements, irrespective of whether the Commission issues an EA or an EIS.

³ National Environmental Policy Act of 1969, as amended (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, §4(b), September 13, 1982).

2.0 SCOPING

This Scoping Document 1 (SD1) is intended to advise all participants as to the proposed scope of the EA and to seek additional information pertinent to this analysis. This document contains: (1) a description of the scoping process and schedule for the development of the EA; (2) a description of the applicant's proposed action and alternatives; (3) preliminary identification of environmental issues; (4) a request for comments and information; (5) a proposed EA outline; and (6) a preliminary list of comprehensive plans that are applicable to the project.

2.1 PURPOSE OF SCOPING

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

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

2.2 COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL SITE REVIEW

During preparation of the EA, there will be several opportunities for the resource agencies, Tribes, NGOs, and public to provide input. These opportunities occur:

- during the public scoping process and study plan meetings, when we solicit oral and written comments regarding the scope of the issues and analysis for the EA;
- in response to the Commission's notice that the project is ready for environmental analysis; and
- after issuance of the EA, when we solicit written comments on the EA.

In addition to written comments solicited by this SD1, we will hold two public scoping meetings and an environmental site review in the vicinity of the project. A daytime meeting will focus on concerns of resource agencies, NGOs, and Tribes, while an evening meeting will focus on receiving input from the public. We invite all interested agencies, Tribes, NGOs, and individuals to attend one or both of the meetings to assist us in identifying the scope of environmental issues that should be analyzed in the EA. All interested parties are also invited to participate in the environmental site review. The times and location of the meetings and environmental site review are as follows:

Evening Scoping Meeting

Date and Time: Tuesday, August 28, 2018 at 6:30 p.m.
Location: Village Hall
115 White Pigeon Street
Constantine, Michigan 49042
Phone Number: (269) 435-2085

Environmental Site Review

Date and Time: Tuesday, August 28, 2018 at 9:00 a.m.
Location: Constantine Project powerhouse
155 North Washington Avenue
Constantine, Michigan 49042
Phone Number: (614) 716-2240

Daytime Scoping Meeting

Date and Time: Wednesday, August 29, 2018 at 9:00 a.m.
Location: Village Hall
115 White Pigeon Street
Constantine, Michigan 49042
Phone Number: (269) 435-2085

Please notify Jonathan Magalski at jmmagalski@aep.com (preferred contact) or at (614) 716-2240 by August 17, 2018, if you plan to attend the environmental site review.

The scoping meetings will be recorded by a court reporter, and all statements (verbal and written) will become part of the Commission's public record for the project. These meetings are posted on the Commission's calendar located on the internet at <http://www.ferc.gov/EventCalendar/EventsList.aspx?View=monthview>, along with other related information. Before each meeting, all individuals who attend, especially those who intend to make statements, will be asked to sign in and clearly identify themselves for the record. Interested parties who choose not to speak or who are unable to attend the scoping meetings may provide written comments and information to the Commission as described in section 6.0, *Request for Information and Studies*.

Meeting participants should come prepared to discuss their issues and/or concerns as they pertain to the relicensing of the Constantine Project. It is advised that participants review the PAD in preparation for the scoping meetings. Copies of the PAD are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website (www.ferc.gov), using the "eLibrary" link. Enter the docket number, P-10661, to access the documents. For assistance, contact FERC Online Support at FERCONlineSupport@ferc.gov, or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. A copy of the PAD is also available for inspection and reproduction by contacting: Elizabeth Parcell, Process Supervisor, c/o Indiana Michigan Power Company, 40 Franklin Road, Southwest, Roanoke, Virginia, 20411.

Following the scoping meetings and comment period, all issues raised will be reviewed and decisions made on the level of analysis needed. If preliminary analysis indicates that any issues presented in this scoping document have little potential for causing significant effects, the issue(s) will be identified and the reasons for not providing a more detailed analysis will be given in the EA.

If we receive no substantive comments on SD1, we will not prepare a Scoping Document 2 (SD2). Otherwise, we will issue SD2 to address any substantive comments received. The SD2 will be issued for informational use only; no response will be required. The EA will address recommendations and input received during the scoping process.

3.0 PROPOSED ACTION AND ALTERNATIVES

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

3.1 NO-ACTION ALTERNATIVE

Under the no-action alternative, the Constantine Project would continue to operate as required by the current project license (*i.e.*, there would be no change to the existing environment). No new environmental protection, mitigation, or enhancement measures (PM&E) would be implemented. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

3.1.1 Existing Project Facilities

The Constantine Project consists of the following existing facilities:

- (1) an 525-acre reservoir with a storage capacity of 5,750 acre-feet at a water surface elevation of 782.94 feet National Geodetic Vertical Datum (NGVD);
- (2) a 561.25-foot-long dam consisting of, from east to west: (a) a 250-foot-long, 22.5-foot-high embankment with a top elevation of 790 feet NGVD; (b) a 241.25-foot-long, 12-foot-high uncontrolled concrete overflow spillway dam with a fixed crest elevation of 781.96 feet NGVD, topped by 0.94-foot-high flashboards with a crest elevation of 782.90 feet NGVD, which includes a 4-foot sluice gate at the left abutment; (c) a 70-foot-long earthen embankment;
- (3) a 650-foot-long, 20-foot-high earthen detached dike that begins 1,500 feet east of the left abutment of the spillway dam, with a top elevation of 790 feet NGVD;
- (4) a 68-foot-long, 20-foot-high concrete headgate structure consisting of seven wooden 15-foot-high vertical slide gates with a sill elevation of 770.00 feet NGVD with six 7.83-foot-long gates and one 6.75-foot-long gate located at the entrance to the power canal;
- (5) a 1,270-foot-long power canal with a bottom width of 60 feet;
- (6) a 140-foot-long, 30-foot-wide brick powerhouse, with a design head of 12.5 feet;
- (7) trash racks in front of the forebay at the entrance to the powerhouse;
- (8) four vertical shaft Francis turbines each coupled to a 300-kilowatt generator, for a total installed capacity of 1.2 MW;
- (11) a switchyard adjacent to the powerhouse with three step-up transformers;
- (12) a 50-foot-long, 2.4-kilovolt transmission line; and
- (13) appurtenant facilities.

The existing project facilities are shown in figure 2.



Figure 2. Constantine Project detail location map (Source: Staff)

3.1.2 Existing Project Operation

The Constantine Project is operated in a run-of-river mode, such that outflow from the project approximates inflow, as required by Article 403 of the current license.⁴ Project flows through the turbines are controlled by computer or manually operated. Flows in excess of the maximum hydraulic capacity of the four turbines, which is 1,528 cubic feet per second (cfs) at a head of 11.3 feet or 1,720 cfs at a head of 12.5 feet flow uncontrolled over the project's 241.25-foot-long spillway. Flashboards generally fail when the water level in the reservoir is about 785.0 feet NGVD.

3.2 APPLICANT'S PROPOSAL

3.2.1 Proposed Project Facilities and Operations

I&M Power proposes to continue to operate the Constantine Project in a run-of-river mode, such that outflow from the project approximates inflow. No new or upgraded facilities, structural changes, or operational changes are proposed for the project during the term of the new license.

3.2.2 Proposed Environmental Measures

I&M Power proposes to continue operating the Constantine Project with the protection, mitigation, and enhancement (PM&E) measures described below. The potential need for additional PM&E measures will be evaluated during the relicensing process.

Geologic and Soil Resources

- There are no proposed PM&E measures related to geology and soil resources for the project.

Aquatic Resources

- There are no proposed PM&E measures for aquatic resources.

Terrestrial Resources

- Continue to monitor purple loosestrife and Eurasian water milfoil in the project.
- Continue to evaluate options to control invasive plant species in the project.

⁴ 65 FERC ¶62,063 (1993).

Recreation Land Use, and Aesthetic Resources

- There are no proposed PM&E measures related to recreation, land use, and aesthetic resources for the project.

Cultural Resources

- There are no proposed PM&E measures related to cultural resources for the project at this time; however, if resources are identified within the area of potential effects (APE) that may potentially be affected by project operation, an Historic Properties Management Plan would be developed.

Socioeconomic Resources

- There are no proposed PM&E measures related to socioeconomic resources.

3.3 DAM SAFETY

It is important to note that dam safety constraints may exist and should be taken into consideration in the development of proposals and alternatives considered in the pending proceeding. For example, proposed modifications to the dam structure, such as the addition of flashboards or fish passage facilities, could impact the integrity of the dam structure. As the proposal and alternatives are developed, the applicant must evaluate the effects and ensure that the project would meet the Commission's dam safety criteria found in Part 12 of the Commission's regulations and the Engineering Guidelines (<http://www.ferc.gov/industries/hydropower/safety/guidelines/eng-guide.asp>).

3.4 ALTERNATIVES TO THE PROPOSED ACTION

Commission staff will consider and assess all alternative recommendations for operational or facility modifications, as well as environmental measures identified by staff, federal and state agencies, Tribes, NGOs, and the public.

3.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

At present, we propose to eliminate the following alternatives from detailed study in the EA.

3.5.1 Federal Government Takeover

In accordance with 18 C.F.R. § 16.14 of the Commission's regulations, a federal department or agency may file a recommendation that the United States exercise its right to take over a hydroelectric power project with a license that is subject to sections 14 and

15 of the FPA.⁵ We do not consider federal takeover to be a reasonable alternative. Federal takeover of the project would require congressional approval. While that fact alone would not preclude further consideration of this alternative, there is currently no evidence showing that federal takeover should be recommended to Congress. No party has suggested that federal takeover would be appropriate, and no federal agency has expressed interest in operating the project.

3.5.2 Non-power License

A non-power license is a temporary license the Commission would terminate whenever it determines that another governmental agency is authorized and willing to assume regulatory authority and supervision over the lands and facilities covered by the non-power license. At this time, no governmental agency has suggested a willingness or ability to take over the project. No party has sought a non-power license, and we have no basis for concluding that the Constantine Project should no longer be used to produce power. Thus, we do not consider a non-power license a reasonable alternative to relicensing the project.

3.5.3 Project Decommissioning

Decommissioning of the project could be accomplished with or without dam removal. Either alternative would require denying the relicense application and surrender or termination of the existing license with appropriate conditions. There would be significant costs involved with decommissioning the project and/or removing any project facilities. The project provides a viable, safe, and clean renewable source of power to the region. With decommissioning, the project would no longer be authorized to generate power.

No party has suggested project decommissioning would be appropriate in this case, and we have no basis for recommending it. Thus, we do not consider project decommissioning a reasonable alternative to relicensing the project with appropriate environmental measures.

⁵ 16 U.S.C. §§ 791(a)-825(r).

4.0 SCOPE OF CUMULATIVE EFFECTS ANALYSIS AND RESOURCE ISSUES

4.1 CUMULATIVE EFFECTS

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

Based on information in the PAD and preliminary staff analysis, we have not identified any resource that could be cumulatively affected by the continued operation and maintenance of the project.

4.2 RESOURCE ISSUES

In this section, we present a preliminary list of environmental issues to be addressed in the EA. We identified these issues, which are listed by resource area, by reviewing the PAD and the Commission's record for the Constantine Project. This list is not intended to be exhaustive or final, but contains those issues raised to date that could have substantial effects. After the scoping process is complete, we will review the list and determine the appropriate level of analysis needed to address each issue in the EA.

4.2.1 Geologic and Soils Resources

- Effects of continued project operation and maintenance on shoreline erosion within the project boundary, the bypassed reach, and immediately downstream of the powerhouse.

4.2.2 Aquatic Resources

- Effects of continued project operation on water quality, including dissolved oxygen concentrations and water temperature in the project reservoir and in the St. Joseph River immediately downstream from the project dam (i.e., in the project bypassed reach).
- Effects of turbine entrainment on fish populations in the project reservoir and in the St. Joseph River downstream from the project.

4.2.3 Terrestrial Resources

- Effects of continued project operation on riparian, littoral, and wetland habitat and associated wildlife.

- Effects of continued project operation on invasive plant species, including purple loosestrife and Eurasian watermilfoil.

4.2.4 Threatened and Endangered Species

- Effects of continued project operation and maintenance on the following federally-listed threatened and endangered species: copperbelly water snake, Eastern massasauga, Mitchell's Satyr Butterfly, eastern prairie fringed orchid, northern long-eared bat, and Indiana bat.

4.2.5 Recreation and Land Use

- Adequacy of existing public access and recreational facilities to meet current and future recreation needs.

4.2.6 Cultural Resources

- Effects of continued project operation and maintenance on properties that are included in or eligible for inclusion in the National Register of Historic Places.

4.2.7 Developmental Resources

- Effects of any proposed or recommended environmental PM&E measures on the project's economics.

5.0 PROPOSED STUDIES

I&M Power's initial study proposal is identified by resource area in table 1. Detailed information on I&M Power's initial study proposals can be found in the PAD. Additional studies may be added to this list based on comments provided by Commission staff, federal and state resource agencies, Tribes, and other interested participants during this scoping process.

I&M Power has not identified any issues relating to the following resources: aesthetic or socioeconomic resources. Therefore, no studies are proposed for these resource areas.

Table 1. I&M Power's initial study proposals for the Constantine Project. (Source: I&M Power, 2018).

Resource Area	Proposed Study/Information Need
1. Geology and Soils	Conduct a shoreline stability assessment at the project that would include: (1) a survey to locate any sites of erosion or shoreline instability; (2) an inventory, map, and photographs of any identified erosion areas; (3) a scoring system to identify areas that have a potential to erode at unnaturally high rates; and (4) a prioritization of any areas where remedial action may be needed.
2. Aquatic Resources	<p>Conduct a temperature and dissolved oxygen monitoring study within the project boundary. The locations of monitoring equipment would be determined after consultation with Michigan Department of Environmental Quality (Michigan DEQ) and other stakeholders.</p> <p>Conduct sediment contaminant sampling at locations in the reservoir identified after consultation with Michigan DEQ and other stakeholders. Up to six sediment samples would be analyzed at a qualified laboratory facility to determine the types and concentration of any contaminants in the samples.</p> <p>Conduct a fish survey in the project reservoir and bypassed reach to determine the current fish communities present in project waters. The specific survey sampling locations and sampling methods would be determined in consultation with resource agencies and other stakeholders. In addition, tissue samples would be removed from fish collected in the fall sampling period and analyzed for mercury and polychlorinated biphenyl concentrations.</p>

Resource Area	Proposed Study/Information Need
	<p>Conduct a mussel assessment survey in the summer to identify any mussel populations within the project area including at two locations downstream of the project dam and at three locations in the project reservoir. Specific survey locations would be identified after consultation with resource agencies and other stakeholders.</p> <p>Compare the results of the data collected from I&M Power's proposed fish survey with previous surveys to confirm if species compositions have not changed.</p>
3. Terrestrial Resources	<p>Conduct a desk-top study to review U.S. Fish and Wildlife's FWS's National Wetlands Inventory maps, aerial photographs, and information available from Michigan DEQ regarding mapped wetlands. Also field-verify mapped wetlands within the project boundary.</p>
4. Recreation and Land Use	<p>Conduct a recreation assessment of the project to assess recreational opportunities and potential improvements to recreational resources within the project boundary.</p>
5. Cultural Resources	<p>Assess project effects on identified historic and archeological resources and determine the need for: (1) additional archeological site file search; (2) an evaluation of project facilities; and/or (3) a Phase I investigation of the project's APE after consultation with the Michigan State Historic Preservation Office and federally recognized tribes.</p>

6.0 REQUEST FOR INFORMATION AND STUDIES

We are asking federal, state, and local resource agencies, Tribes, NGOs, and the public to forward to the Commission any information that may assist us in conducting an accurate and thorough analysis of the project-specific and cumulative effects associated with relicensing the Constantine Project. The types of information requested include, but are not limited to:

- information, quantitative data, or professional opinions that may help define the geographic and temporal scope of the analysis (both project-specific and cumulative effects), and that help identify significant environmental issues;
- identification of, and information from, any other EA, EIS, or similar environmental study (previous, on-going, or planned) relevant to the proposed relicensing of the Constantine Project;
- existing information and any data that would help to describe the past and present actions and effects of the project and other developmental activities on environmental and socioeconomic resources;
- information that would help characterize the existing environmental conditions and habitats;
- identification of any federal, state, or local resource plans, and any future project proposals in the affected resource area (*e.g.*, proposals to construct or operate water treatment facilities, recreation areas, water diversions, timber harvest activities, or fish management programs), along with any implementation schedules;
- documentation that the proposed project would or would not contribute to cumulative adverse or beneficial effects on any resources. Documentation can include, but need not be limited to, how the project would interact with other projects in the area and other developmental activities; study results; resource management policies; and reports from federal and state agencies, local agencies, Tribes, NGOs, and the public;
- documentation showing why any resources should be excluded from further study or consideration; and
- study requests by federal and state agencies, local agencies, Tribes, NGOs, and the public that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the EA for the project.

All requests for studies filed with the Commission must meet the criteria found in Appendix A, *Study Plan Criteria*.

The requested information, comments, and study requests should be submitted to the Commission no later than **October 2, 2018**. All filings must clearly identify the project name and docket number on the first page: Constantine Project (P-10661-050).

Scoping comments may be filed electronically via the Internet. *See* 18 C.F.R. 385.2001(a)(1)(iii) and the instructions on the Commission's website at <http://www.ferc.gov/docs-filing/efiling.asp>. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at <http://www.ferc.gov/docs-filing/ecomment.asp>. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov, or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. Although the Commission strongly encourages electronic filing, documents may also be paper-filed. To paper file, mail an original to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426.

Register online at <http://www.ferc.gov/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support.

Questions concerning the scoping process, preparation of the EA, or how to file written comments with the Commission should be directed to Lee Emery at (202) 502-8379, or lee.emery@ferc.gov. Additional information about the Commission's licensing process and the Constantine Project may be obtained from the Commission's website, <http://www.ferc.gov>.

7.0 EA PREPARATION SCHEDULE

At this time, we anticipate preparing a single EA. The EA will be sent to all persons and entities on the Commission's service and mailing lists for the Constantine Project. The EA will include our recommendations for operating procedures, as well as PM&E measures that should be part of any license issued by the Commission. All recipients will then have 30 days to review the EA and file written comments with the Commission.

The major milestones, with pre-filing target dates are as follows:

<u>Major Milestone</u>	<u>Target Date</u>
Scoping Meetings	August 2018
License Application Filed	September 2021
Ready for Environmental Analysis Notice Issued	
Deadline for Filing Comments, Recommendations, and Agency Terms and Conditions/Prescriptions	
EA Issued	
Comments on EA Due	

Post-filing milestones will be established following I&M Power's filing of the final license application. A copy of the pre-filing portion of the process plan, which has a complete list of the milestones for developing the license application for the Constantine Project, is attached as Appendix B to this SD1.

8.0 PROPOSED EA OUTLINE

The preliminary outline for the Constantine Project EA is as follows:

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ACRONYMS AND ABBREVIATIONS

EXECUTIVE SUMMARY

1.0 INTRODUCTION

1.1 Application

1.2 Purpose of Action and Need For Power

1.2.1 Purpose of Action

1.2.2 Need for Power

1.3 Statutory and Regulatory Requirements

1.3.1 Federal Power Act

1.3.1.1 Section 18 Fishway Prescriptions

1.3.1.2 Section 10(j) Recommendations

1.3.2 Clean Water Act

1.3.3 Endangered Species Act

1.3.4 Coastal Zone Management Act

1.3.5 National Historic Preservation Act

1.4 Public Review and Comment

1.4.1 Scoping

1.4.2 Interventions

1.4.3 Comments on the Application

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 No-action Alternative

2.1.1 Existing Project Facilities

2.1.2 Project Safety

2.1.3 Existing Project Operation

2.1.4 Existing Environmental Measures

2.2 Applicant's Proposal

2.2.1 Proposed Project Facilities

2.2.2 Proposed Project Operation

2.2.3 Proposed Environmental Measures

2.2.4 Modifications to Applicant's Proposal—Mandatory Conditions

2.3 Staff Alternative

2.4 Staff Alternative with Mandatory Conditions

- 2.5 Other Alternatives (as appropriate)
- 2.6 Alternatives Considered but Eliminated From Detailed Analysis
- 3.0 ENVIRONMENTAL ANALYSIS
 - 3.1 General Description of the River Basin
 - 3.2 Scope of Cumulative Effects Analysis
 - 3.3 Proposed Actions and Action Alternatives
 - 3.3.1 Geologic and Soil Resources
 - 3.3.2 Aquatic Resources
 - 3.3.3 Terrestrial Resources
 - 3.3.4 Threatened and Endangered Species
 - 3.3.5 Recreation and Land Use
 - 3.3.6 Cultural Resources
 - 3.4 No-action Alternative
- 4.0 DEVELOPMENTAL ANALYSIS
 - 4.1 Power and Economic Benefits of the Project
 - 4.2 Comparison of Alternatives
 - 4.3 Cost of Environmental Measures
- 5.0 CONCLUSIONS AND RECOMMENDATIONS
 - 5.1 Comprehensive Development and Recommended Alternative
 - 5.2 Unavoidable Adverse Effects
 - 5.3 Recommendations of Fish and Wildlife Agencies
 - 5.4 Consistency with Comprehensive Plans
- 6.0 FINDING OF NO SIGNIFICANT IMPACT (OR OF SIGNIFICANT IMPACT)
- 7.0 LITERATURE CITED
- 8.0 LIST OF PREPARERS

APPENDICES

A—Draft License Conditions Recommended by Staff

9.0 COMPREHENSIVE PLANS

Section 10(a)(2)(A) of the FPA⁶ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. Commission staff has preliminarily identified and reviewed the plans listed below that may be applicable to the Constantine Project. Agencies are requested to review this list and inform staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission, or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 C.F.R. 2.19 of the Commission's regulations. Please follow the instructions for filing a plan at <http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf>.

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

- Michigan Department of Environmental Quality. 1996. Non-indigenous aquatic nuisance species, State Management Plan: A strategy to confront their spread in Michigan. Lansing, Michigan.
- Michigan Department of Natural Resources. 1999. St. Joseph River Assessment and Appendix. St. Joseph River Management Plan. Lansing, Michigan. September 1999.
- Michigan Department of Natural Resources. Statewide Comprehensive Outdoor Recreation Plan (SCORP): 2008-2012. Lansing, Michigan.
- National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington D.C. 1993.
- U.S. Fish and Wildlife Services. Canadian Wildlife Service. 1986. North American waterfowl management plan. Department of the Interior. Environment Canada. May 1986.
- U.S. Fish and Wildlife Service. n.d. Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service. Washington, D.C.

⁶ 16 U.S.C. § 803(a)(2)(A) (2012).

10.0 MAILING LIST

The list below is the Commission's official mailing list for the Constantine Project. If you want to receive future mailings for this proceeding and are not included in the list below, please send your request by email to efiling@ferc.gov, or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, D.C. 20426. All written and emailed requests to be added to the mailing list must clearly identify the following on the first page: Constantine Project (FERC No. 10661-050). You may use the same method if requesting removal from the mailing list.

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

Mailing List for Constantine Project, **FERC Project No. 10661-050**

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<p>Kurt Newman Michigan Department of Natural Resources P.O. Box 30446 Lansing, MI 48909-7946</p>	<p>Chris E. Freiburger, Biologist Michigan Department of Natural Resources Fisheries Division 530 West Allegan Street Lansing, MI 48933-1521</p>
<p>Michael C. Connor, Esquire Comm. U.S. Bureau of Reclamation U.S. Department of Interior 1849 C Street NW Washington, DC 20240-0001</p>	<p>Chief Michigan Air Quality Division P.O. Box 30260 Lansing, MI 48909-7760</p>
<p>Michigan Forest Management Division P.O. Box 30028 Lansing, MI 48909-7528</p>	<p>Michigan State Historic Preservation Officer Michigan Bureau of History 717 West Allegan Street Lansing, MI 48915-1703</p>
<p>Nick Chevance Regional Environmental Coordinator U.S. National Park Service 601 Riverfront Drive Omaha, NE 68128</p>	<p>Michigan Wildlife Division P.O. Box 30028 Lansing, MI 48909-7528</p>
<p>Director Michigan Department of Natural Resources P.O. Box 30446 Lansing, MI 48909-7946</p>	<p>State Conservationist Natural Resources Conservation Service U.S. Department of Agriculture 3001 Coolidge Road, Ste 250 East Lansing, MI 48823-6362</p>
<p>U.S. Coast Guard MSO Sault St. Marie C/O CG Group Sault St. Marie, MI 49783-9501</p>	<p>U.S. Coast Guard FERC Contact MSO Chicago 555 Plainfield Road, Ste A Willowbrook, IL 60527</p>

U.S. Coast Guard MSO Detroit 110 Mount Elliott Street Detroit, MI 48207-4319	U.S. Environmental Protection Agency Region V 77 West Jackson Boulevard Chicago, IL 60604-3511
Michigan Department of Natural Resources P.O. Box 30257 Lansing, MI 48909-7757	Field Manager U.S. Bureau of Land Management 626 East Wisconsin Ave., Ste 200 Milwaukee, WI 53202-4618
Honorable Debbie Stabenow U.S. Senate 133 Hart Senate Office Building Washington, DC 20510	Honorable Frederick Stephen Upton U.S. House of Representatives Washington, D.C. 20515
District Engineer U.S. Army Corps of Engineers 477 Michigan Avenue Detroit, MI 48226-2523	U.S. Fish and Wildlife Service Regional Director 5600 American Blvd. West Ste. 990 Bloomington, MN 55437-1458
U.S. Bureau of Indian Affairs BIA—Midwest Regional Office Norman Pointe II Bldg. 5600 West American Blvd., Ste 500 Bloomington, MN 55437	

APPENDIX A
STUDY PLAN CRITERIA
18 CFR § 5.9(b)

Any information or study request must contain the following:

1. Describe the goals and objectives of each study proposal and the information to be obtained;
2. If applicable, explain the relevant resource management goals of the agencies or Tribes with jurisdiction over the resource to be studied;
3. If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study;
4. Describe existing information concerning the subject of the study proposal, and the need for additional information;
5. Explain any nexus between project operation and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements;
6. Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge; and
7. Describe considerations of level of effort and cost, as applicable, and why proposed alternative studies would not be sufficient to meet the stated information needs.

APPENDIX B

CONSTANTINE PROJECT PROCESS PLAN AND SCHEDULE

This process plan establishes the deadlines for the pre-filing process. If the due date falls on a weekend or holiday, the due date is the following business day. Early filings or issuances will not result in changes to these deadlines. Shaded milestones are unnecessary if there are no study disputes.

Responsible Party	Pre-Filing Milestone	Date	FERC Regulation
I&M Power	Issue Public Notice for NOI/PAD	6/4/2018	5.3(d)(2)
I&M Power	File NOI/PAD with FERC	6/4/2018	5.5, 5.6
FERC	Tribal Meetings	7/4/2018	5.7
FERC	Issue Notice of Commencement of Proceeding; Issue Scoping Document 1	8/3/2018	5.8
FERC	Constantine Project Environmental Site Review and Scoping Meetings	8/28/2018 and 8/29/2018	5.8(b)(viii)
All stakeholders	PAD/SD1 Comments and Study Requests Due	10/2/2018	5.9
FERC	Issue Scoping Document 2	11/16/2018	5.10
I&M Power	File Proposed Study Plan (PSP)	11/16/2018	5.11(a)
All stakeholders	Proposed Study Plan Meeting	12/16/2018	5.11(e)
All stakeholders	Proposed Study Plan Comments Due	2/14/2019	5.12
I&M Power	File Revised Study Plan	3/16/2019	5.13(a)
All stakeholders	Revised Study Plan Comments Due	3/31/2019	5.13(b)
FERC	Director's Study Plan Determination	4/15/2019	5.13(c)
Mandatory Conditioning Agencies	Any Study Disputes Due	5/5/2019	5.14(a)
Dispute Panel	Third Dispute Panel Member Selected	5/20/2019	5.14(d)
Dispute Panel	Dispute Resolution Panel Convenes	5/25/2019	5.14(d)(3)
I&M Power	Applicant Comments on Study Disputes Due	5/30/2019	5.14(j)
Dispute Panel	Dispute Resolution Panel Technical Conference	6/4 2019	5.14(j)
Dispute Panel	Dispute Resolution Panel Findings Issued	6/24/2019	5.14(k)

Responsible Party	Pre-Filing Milestone	Date	FERC Regulation
FERC	Director's Study Dispute Determination	7/14/2019	5.14(l)
I&M Power	First Study Season	2020	5.15(a)
I&M Power	Initial Study Report	4/14/2020	5.15(c)(1)
All stakeholders	Initial Study Report Meeting	4/29/2020	5.15(c)(2)
I&M Power	Initial Study Report Meeting Summary	5/14/2020	5.15(c)(3)
All stakeholders	Any Disputes/Requests to Amend Study Plan Due	6/13/2020	5.15(c)(4)
All stakeholders	Responses to Disputes/Amendment Requests Due	7/13/2020	5.15(c)(5)
FERC	Director's Determination on Disputes/Amendments	8/12/2020	5.15(c)(6)
I&M Power	Second Study Season	2021	5.15(a)
I&M Power	Updated Study Report due	4/14/2021	5.15(f)
All stakeholders	Updated Study Report Meeting	4/29/2021	5.15(f)
I&M Power	Updated Study Report Meeting Summary	5/14/2021	5.15(f)
All stakeholders	Any Disputes/Requests to Amend Study Plan Due	6/13/2021	5.15(f)
All stakeholders	Responses to Disputes/Amendment Requests Due	7/13/2021	5.15(f)
FERC	Director's Determination on Disputes/Amendments	8/12/2021	5.15(f)
I&M Power	File Preliminary Licensing Proposal	5/3/2021	5.16(a)
All stakeholders	Preliminary Licensing Proposal Comments Due	8/1/2021	5.16(e)
I&M Power	File Final License Application	9/30/2021	5.17
I&M Power	Issue Public Notice of License Application Filing	10/14/2021	5.17(d)(2)