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Environmental Assessment

USA & State South Branch 1-8 Well Project

Mio Ranger District, Huron-Manistee National Forests
Crawford County, Michigan

T 25 N, R 1 W, Sections 7, 8, & 9

Cooperating Agency:

United States
Department of the
Interior

Bureau of Land
Management



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How to Read This EA (Environmental Assessment)

To read this EA more effectively, carefully study this page. Following Federal regulations, we have designed and written this EA (1) **to provide** the Forest Supervisor of the Huron-Manistee National Forests and the Assistant Field Manager, Bureau of Land Management with sufficient information to make an informed, reasoned decision concerning the proposed USA & State South Branch 1-8 Well Project and (2) **to inform** the affected and interested public of this project so that they may express their opinions to the Forest Supervisor.

This EA follows the organization and content established by the CEQ Regulations (40 CFR 1500-1508). The EA consists of the following chapters:

- 1.0 Purpose and Need for the Proposed Action
- 2.0 Alternatives Including the Proposed Action
- 3.0 Environmental Consequences
- 4.0 List of Preparers
- 5.0 List of Agencies and Persons Consulted
- 6.0 References
- 7.0 Appendix

Chapters 1 and 2 together serve as an Executive Summary. We have written these two chapters so that non-technical readers can understand the potential environmental, technical, economic, and social consequences of **taking** and **not taking** action.

- **Chapter 1** introduces the USA & State South Branch 1-8 Well Project. It provides a very brief description of the project and then explains three key things about the project: the (1) relevant environmental issues, (2) the decisions that the Forest Supervisor and the Assistant Field

Manager must make concerning this project, and (3) the relevant laws, regulations, and consultation with which the Huron-Manistee National Forests and Bureau of Land Management must comply.

- **Chapter 2** serves as the heart of this EA. It provides detailed descriptions of Alternative 1: Do Not Permit (No Action), the Proposed Action, and Alternative 2: Modified Proposed Action with Conditions of Approval. Most important, it includes a summary comparison of the predicted effects of the Proposed action and the two alternatives on the human environment, providing a clear basis for choice between the three alternatives for the Forest Supervisor, Assistant Field Manager, and the public.

Chapter 3 contains detailed, scientific information, presented to alert technical specialists to potential problems, opportunities, and solutions. This chapter serves as the scientific and analytic basis for the summary comparison of the predicted effects presented in Chapter 2. This chapter briefly describes the past and current conditions of the relevant resources (*issues*) in the project area that would be meaningfully affected, establishing a part of the baseline used for the comparison of the predicted effects of the alternatives. This chapter presents the detailed, analytic predictions of the consequences of implementing Alternative 1, the Proposed Action, and Alternative 2. These predictions include the direct, indirect, short term, long term, irreversible, irretrievable, and cumulative effects of implementing the proposed action and alternatives.

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Glossary: Abbreviations, Acronyms, and Terms

Alternative	Proposed project (plan, option, choice).
Biodiversity	The diversity of life in all its forms and all its levels of organization (Hunter, 1990).
BLM	USDI, Bureau of Land Management
Bottomhole location	The location of the bottom of the drilled hole. This may or may not be offset from the surface location that the well started at.
CEQ	Council of Environmental Quality, established by the National Environmental Policy Act of 1969. The Council is part of the Executive Branch of Federal Government.
CEQ Regulations	Regulations that tell how to implement NEPA.
CFR	Code of Federal Regulations
Completion of well	The process of making a well ready to be produced.
Cumulative Effects	Past, present, and reasonably foreseeable effects added together (regardless of who or what has caused, is causing, and might cause these effects).
Decision maker	Forest Supervisor – FS, Asst. Field Manager, Milwaukee - BLM
DFC	Desired future condition
DN (Forest Service)	Decision Notice. The decision to implement or not implement an alternative is recorded in a Decision Notice.
Downhole	A term to describe tools, equipment, and instruments used within the well bore or conditions or techniques applying to the well bore.
DR (BLM)	Decision Record. The decision to implement or not implement an alternative is recorded in a Decision Record.
EA	Environmental Assessment
Ecosystems	All the interacting populations of plants, animals, and microorganisms occupying an area, plus their physical environment (Hunter, 1990).
ESA	Endangered Species Act of 1973
Essential Habitat	Land identified as biologically appropriate and necessary for the development of nesting habitat for the Kirtland's warbler.
ETS Species	Endangered, Threatened and Sensitive Species
FEIS	Final Environmental Impact Statement for the Land and Resource Management Plan, Huron-Manistee National Forests (USDA Forest Service 1986a).
Flowline	The pipe through which oil and gas travels from a well to processing equipment.
FONSI	Finding of No Significant Impact – a document that records the Decisionmaker's conclusion that implementing an alternative would have no significant impact on the quality of the human environment, as defined in CEQ Regulations 1508.14.
Forest Plan	Huron-Manistee National Forests Land and Resource Management Plan (USDA Forest Service 1986b, as amended)
FS	USDA, Forest Service
ID Team	Interdisciplinary Team – a group of specialists who conducted the environmental analysis and who wrote this Environmental Assessment.

Issue	An environmental resource about which someone has a concern. <i>Issues</i> identified in NEPA § 102(2)(E) as <i>unresolved conflicts</i> .
KWMA	Kirtland's Warbler Management Area
LTA	Land Type Association
MDNR	Michigan Department of Natural Resources
MDEQ	Michigan Department of Environmental Quality
Monitoring Report	HMNF Monitoring and Evaluation Report (2001)
MPA	Management Prescription Area, defined in Forest Plan.
NEPA	National Environmental Policy Act of 1969
NFMA	National Forest Management Act (36 CFR 219.27)
Objectives	Subsets of a project's goals.
Pipeline	All those physical facilities through which gas is moved in transportation, including pipe, valves, and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.
Preferred Alternative	The alternative (option/plan) that the decisionmaker plans to select near the end of the analysis process. This is not necessarily the selected alternative.
Production Facility	Bringing the reservoir fluids to the surface and separating them and with sorting, gauging, and otherwise preparing the product for collection.
Recovery Plan	Kirtland's Warbler Recovery Plan (USDI Fish and Wildlife Service 1985)
Reforestation	To establish trees on a site by natural or artificial means.
Responsible Official	Forest Supervisor, Assistant Field Manager, BLM
RFSS	Regional Forester's Sensitive Species
ROD	Record of Decision
Selected Alternative	The alternative (option/plan) that the decision maker selects to implement.
Short and long term	Generally, short term means the duration of the activities plus a few months. Long term means after the short term, extending for about 20 - 30 years.
SHPO	State Historic Preservation Office in Michigan
Slash	Limbs, branches and tops of trees left after cutting and clearing.
Split estate	Federal surface rights over State mineral rights or State surface rights over Federal mineral rights.
Stimulation of well	Process used to enlarge the old channel or create new ones in the reservoir rocks.
Strategy	The Strategy for Kirtland's Warbler Habitat Management (2001a)
Surface hole location	The position on the surface of the earth of a well location. The subsurface position may or may not be directly beneath the surface location.
Treatment Block	A specific area managed to create Kirtland's warbler essential habitat.
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
FWS	USDI, Fish and Wildlife Service