

**DECOMMISSIONING PLAN
TOBICO MARCH SGA
KAWKAWLIN, MICHIGAN**

APPENDIX K

**MDNR/NRC Correspondence Relative to the
Decommissioning Plan**

JANUARY 2004



Appendix K – Communications

Introduction

Included in Appendix K are several communications, in the form of written letters, between the US Nuclear Regulatory Commission (NRC) and the Michigan Department of Natural Resources (MDNR) that address various questions and requests presented by the NRC and the accompanying MDNR response during the development of the Derived Concentration Guideline Limit (DCGL) value and the Decommissioning Plan (DP) for the Tobico Marsh State Game Area (SCG), NRC License Number SUC-1581, Docket Number 40-9015.

Communications Summary

After NRC Staff met with representatives of the MDNR on April 9, 2002 to discuss radiological dose modeling scenario(s) and related issues in conjunction with the preparation of the DP and after receiving MDNR's letter dated June 27, 2002, a letter was sent by Mr. Larry Camper, Decommissioning Branch, Division of Waste Management, NRC dated July 26, 2002 to Ms. Kelli Sobel, Deputy Director for Administration, MDNR. In there letter, the NRC requested additional information to establish the basis for dose modeling at the Tobico Marsh SDMP site, specifically that two issues be addressed regarding dose modeling and supporting documentation. The first issue was addressed in a question: "Is it realistically credible that the land in the absence of any of the multiple agency impediments, given its physical characteristics, would not be used for residential use or farming for the foreseeable future?" The second issue requested information regarding "multi agency impediments," and "lasting over a thousand year period...."

In response to the NRC's request for information, a letter was sent to the NRC dated September 13, 2002 from the MDNR. In this letter, MDNR provided the requested additional information regarding dose modeling scenarios and supporting evidence as requested. The information sent to the NRC has been incorporated into the DP (see Section 5.3 of the current DP). This response letter, including its five appendices, is included as a part of this Appendix.

On December 19, 2002, Mr. Larry Camper, Decommissioning Branch, Division of Waste Management, NRC sent Ms. Kelli Sobel, Deputy Director for Administration, MDNR a letter indicating that the selected hunter, fisher, naturalist scenario "appears to be reasonably credible for the site; however, we need the following additional information submitted in the DP:" A copy of this letter, and the request for three additional areas of information, is also included in this Appendix.

In response to NRC's letter of December 19, 2002, for additional information to be addressed in the DP, MDNR obtained the requested information and has included it in the DP. That information is located in Section 4.3 and Appendix F of the DP.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 19, 2002

Ms. Kelli Sobel
Deputy Director for Administration
Michigan Department of Natural Resources
530 West Allegan Street
Lansing, MI 48933

SUBJECT: EVALUATION OF MICHIGAN DEPARTMENT OF NATURAL RESOURCES'
BAY COUNTY TOBICO MARSH LAND AS STATE GAME AREA FOR
DECOMMISSIONING AND RELATED PURPOSES

Dear Ms. Sobel:

The U. S. Nuclear Regulatory Commission (NRC) staff has reviewed your letter dated September 13, 2002, pertaining to the Michigan Department of Natural Resources' (MDNR's) Site Decommissioning Management Plan (SDMP) site known as Tobico Marsh State Game Area (SGA). The information provided in your letter answered a number of the NRC staff's questions; however, the staff will conduct a more detailed review after submittal of the decommissioning plan (DP) to determine the acceptability of your approach.

Your letter addressed two key issues related to this SDMP site. The first issue, limitations on future land uses deriving from the physical characteristics of the site, included a discussion of Site Physical Limitations, Site Setting and Land Use, Soil Properties, Drainage and [Site] Access, Agricultural Limitations, Commercial Use Limitations, Residential Use Limitations and Recreational Use Limitations. The second issue, "Multiagency Impediments" (institutional controls that may be relied upon, in part to form the basis for the selection of future land-use scenarios), included a discussion of the following: Federal Restrictions Established for the Tobico Marsh Site (National Natural Landmarks Program - Department of the Interior, the United States Army Corps of Engineers), and State of Michigan Restrictions at the Tobico Marsh Site (Michigan State Lands - MDNR, Saginaw Valley Watershed Protection Area - MDNR).

Our understanding of your conclusions on these two issues is:

1. The significant capital costs required to develop the land render it extremely unlikely for agricultural, commercial or residential uses.
2. Site size, extremely poor soil quality, access distance from main roads, substantial engineering challenges to development, and undesirable aesthetics present additional obstacles to these uses.

3. Due to the proximity to the Tobico Marsh SGA and potentially low development costs for recreational use, future recreational use by hunters is the most probable and realistic reuse of the site.
4. The limiting physical characteristics of the site without any institutionally controlled impediments to development, provide a substantial and credible basis for concluding that it is unrealistic to project that the site might be used for residential dwellings or farming for the foreseeable future.
5. The MDNR site could be shown to satisfy the unrestricted use criteria of 10 CFR Part 20.1402 without concern for the potential future dose to a critical member of a residential or subsistence farming exposure group.
6. MDNR intends to maintain ownership of the parcel in question for the foreseeable future, because the MDNR is consolidating its properties instead of liquidating them.
7. The hunter scenario is realistic and this scenario is supported by the MDNR's land management policy.

You have provided substantial information in support of a hunter, fisher, naturalist scenario. This scenario appears to be reasonably credible for this site; however, we need the following additional information submitted in the DP:

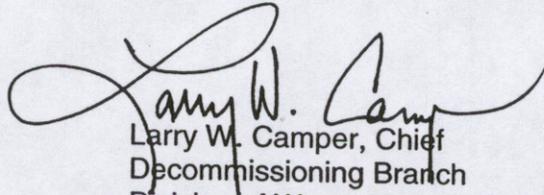
1. Describe the soil or cover material at the site with respect to its potential for gardening or crop production. MDNR has addressed the native soil at the site. However, the native soil is not currently present at the site, at least near the land surface, because of the excavation and backfilling that occurred as the result of the historical dumping at this site.
2. Describe the shallow water-bearing unit at the site with respect to its capacity to supply an adequate supply and quality of water for residential use and for irrigation of a garden.
3. Present the potential dose to offsite individuals when radionuclides in the groundwater migrate beyond the site, if the slurry wall leaks during the next 1,000 years.

Ms. Kelli Sobel

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If you have any questions regarding this information, please contact Sam Nalluswami, of my staff, at (301) 415-6694.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry W. Camper". The signature is fluid and cursive, with a large loop at the beginning and a long tail extending to the right.

Larry W. Camper, Chief
Decommissioning Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

cc: MDNR Distribution List
Denise Gruben, MDNR



JOHN ENGLER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING

K. L. COOL
DIRECTOR

September 13, 2002

Mr. Larry Camper, Chief
Decommissioning Branch
Division of Waste Management
Office of Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
Mail Stop T-7F27
Washington, DC 20555

Dear Mr. Camper:

In your letter addressed to me, dated July 26, 2002, you state that given the information provided to date, Michigan Department of Natural Resources' (MDNR's) choice of scenario appears realistic for the dose modeling to be performed in connection with the decommissioning of the Tobico Marsh State Game Area (Tobico Marsh SGA) site. You also requested additional information to establish the basis for dose modeling at the Tobico Marsh SGA site. Your request divides the information into two categories corresponding to the following:

- 1) the limitations on future land uses deriving from the **physical characteristics** of the site.
- 2) **institutional controls** that may be relied upon (in part) to form the basis for the selection of future land-use scenarios. The following provides the additional information requested regarding MDNR's decommissioning of the Tobico Marsh SGA site.

SITE PHYSICAL LIMITATIONS

Your question presented in issue one asks "*Is it realistically credible that the land in the absence of any of the multiple agency impediments, given its physical characteristics, would not be used for residential use or farming for the foreseeable future?*"

MDNR believes that the limiting physical characteristics of the site—in the absence of any institutionally controlled impediments to development—provide a substantial and credible basis for concluding that it is unrealistic to project that the site might be used for residential dwellings or farming for the foreseeable future. The following sections describe the limiting physical characteristics of the site supporting our belief.



JOHN ENGLER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING

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September 13, 2002

Mr. Larry Camper, Chief
Decommissioning Branch
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SITE SETTING AND LAND USE

The Tobico Marsh SGA site is located in a vast, freshwater marsh and is surrounded by ponded water and supersaturated soils. Other than passive recreational uses, past use of the land at the three acre site has been limited to industrial waste land disposal. Development of the marshland for residential, commercial, or agricultural uses has not been undertaken within the immediate vicinity of the site. Land in the surrounding area is also largely undeveloped and is sparsely populated with a mixture of single-family residential dwellings and some small commercial facilities. The only noteworthy development of land in the vicinity of the site is more than one mile away along Highway 13. The lack of substantive land development in the immediate vicinity of the site, coupled with the downward trend in population in Bay County, supports the premise that site uses into the foreseeable future will be consistent with present uses. Land that is far more suitable for development than that which exists at the site is available in the surrounding vicinity. The MDNR site does not have the necessary infrastructure (e.g. roadways, utilities) required to support development of the land while the area in the surrounding vicinity already has an infrastructure in place with a considerable amount of vacant land suitable for development.

As to the suitability of the land for different developmental uses, a number of physical factors present significant limitations:

SOIL PROPERTIES

The U.S. Department of Agriculture, Soil Conservation Service's Soil Survey of Bay County, Michigan (1977) indicates the soil at and around the site is classified as the Belleville series. Belleville soil is characterized by a dark gray, loamy surface layer with grayish-brown sand subsoil. The substratum is multicolored clay loam and loam. Permeability is high in the sandy upper part and low in the loamy lower part. In most Belleville soil areas, wetlands (ponded water, marsh vegetation) are present. It has potential for development as habitat for wetland wildlife. Due to the soil characteristics, other development options are economically infeasible or impractical. Belleville soils are not suitable for growing typical agricultural products. Based on the Soil Survey, Belleville soils have "severe limitations" for the following construction activities:

- shallow excavations
- dwellings with or without basements
- small commercial buildings
- local roads and streets
- lawns and landscaping

A "severe limitation" indicates that one or more soil properties or site features are so unfavorable or are so difficult to overcome, that a major increase in construction effort, special design, or intensive maintenance is required. Belleville soils have severe limitations for use as sanitary facilities such as septic tank adsorption fields or sewage lagoons. Belleville soils are also considered poor to unsuitable options for use as road fill, sand base, gravel layer, or topsoil.

DRAINAGE AND ACCESS

Currently, the Tobico Marsh SGA site is accessed via a perimeter road that surrounds the Waste Management landfill located south of the MDNR site. The remainder of the site is bordered by the Tobico State Game Area, and no roads access the site through the game area. Those desiring access will need to acquire the land, or rights to use the land, for the construction of an approximately one mile long access road to the site or the construction of a new gravel road. The current state of the landfill perimeter road is acceptable only for sporadic, recreational use.

Residential or commercial use of the site would require significant widening and reconstruction of the current access road. The cost of road rehabilitation is highly dependent upon the finish material. A one mile gravel road (the least expensive alternative) built to County road standards would cost approximately \$240,000. This cost alone would likely cause a potential buyer to purchase land elsewhere in the area that is more physically and financially accessible. The price of accessible tilled agricultural land is currently estimated at \$2,000 or less per acre. A prudent and reasonable individual would not build a farmstead on this three acres only to have to build a \$240,000 road to get to it.

This site would also have to be drained to be developed. Typical low-cost drainage measures, such as seeded ditches, would be difficult to install at this site. The soil type and soil wetness would cause ditch sidewalls to slump as they are excavated, making proper excavation to required depths infeasible. Alternative ditch construction methods, including excavation shoring and concrete or riprap installation, would add to the prohibitive construction costs. Without adequate drainage, flooding and wetness would prohibit proper construction, operation, and maintenance of permanent structures and prevent the growing of crops. MDNR believes that the cost of drainage installation, especially when added to the capital costs of road installation, would prevent the reuse of the land for agricultural, commercial, or residential purposes.

AGRICULTURAL LIMITATIONS

As alluded to earlier, a 2001 land survey estimates land values in this area of Michigan to be approximately \$2,000 per acre for tilled agricultural land (2001 Michigan Land Values, Michigan State University, December 2001). Access road construction costs alone for this three acre site would far exceed the \$6,000 required to purchase three acres of agricultural land in the surrounding area.