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84-An Archaeological Survey of the Relocated Metro Wastewater Treatment Plant Outfall in Section 3, T10N R1SW, Muskegon County, Michigan

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REPORT OF INVESTIGATIONS NO. 84

1988

AN ARCHAEOLOGICAL SURVEY OF THE RELOCATED METRO WASTEWATER TREATMENT PLANT OUTFALL IN SECTION 3, T10N R15W, MUSKEGON COUNTY, MICHIGAN

(ER-87592)

WILLIAM M. CREMIN

A Report of Research in Response
to ER-87952 and Prepared for:

Muskegon County Wastewater Management System
8301 White Road, Muskegon, Michigan 49442

Attention:

Mr. Dave Kendrick, P.E.

INTRODUCTION:

Pursuant to receipt of authorization from Dr. Y.A. Demirjian, Director, Muskegon County Wastewater Management System (contract dated 18 Apr 88; Purchase Order 88-040330), for a Phase I archaeological study of the proposed corridor for the relocated metro wastewater treatment plant outfall in the S 1/2 of Section 3, T10N R15W, Muskegon County, Michigan, archaeologists in the Department of Anthropology, Western Michigan University initiated a site file search and on 25 Apr 88 conducted on-site evaluation of the project area in order to determine whether construction of the outfall would adversely impact potentially significant archaeological resources. There follows a report of our study, together with the recommendations derived from examination of the proposed outfall corridor.

PROJECT PERSONNEL:

Principal Investigator	- Dr. William M. Cremin, Associate Professor of Anthropology, Western Michigan University
Field Supervisor	- Mr. Dale W. Quattrin, M.A. Candidate in Anthropology, WMU
Field Assistant	- Mr. Greg Walz, Senior majoring in Anthropology, WMU

DESCRIPTION OF THE PROJECT AREA:

The research area of this study comprises a strip of land 12 m wide and 1500 m long that winds around the tip of a "finger-like" extension of uplands into the Muskegon River Valley in the S 1/2 of Section 3, Egelston Township (T10N R15W), Muskegon County, Michigan. The outfall corridor straddles an existing two track that follows the base of bluff for a portion of its length, commencing at Maple Island Road which lies to the east of the project and terminating on the

banks of the Muskegon River at a point approximately 1.7 km N of the study area (Fig. 1).

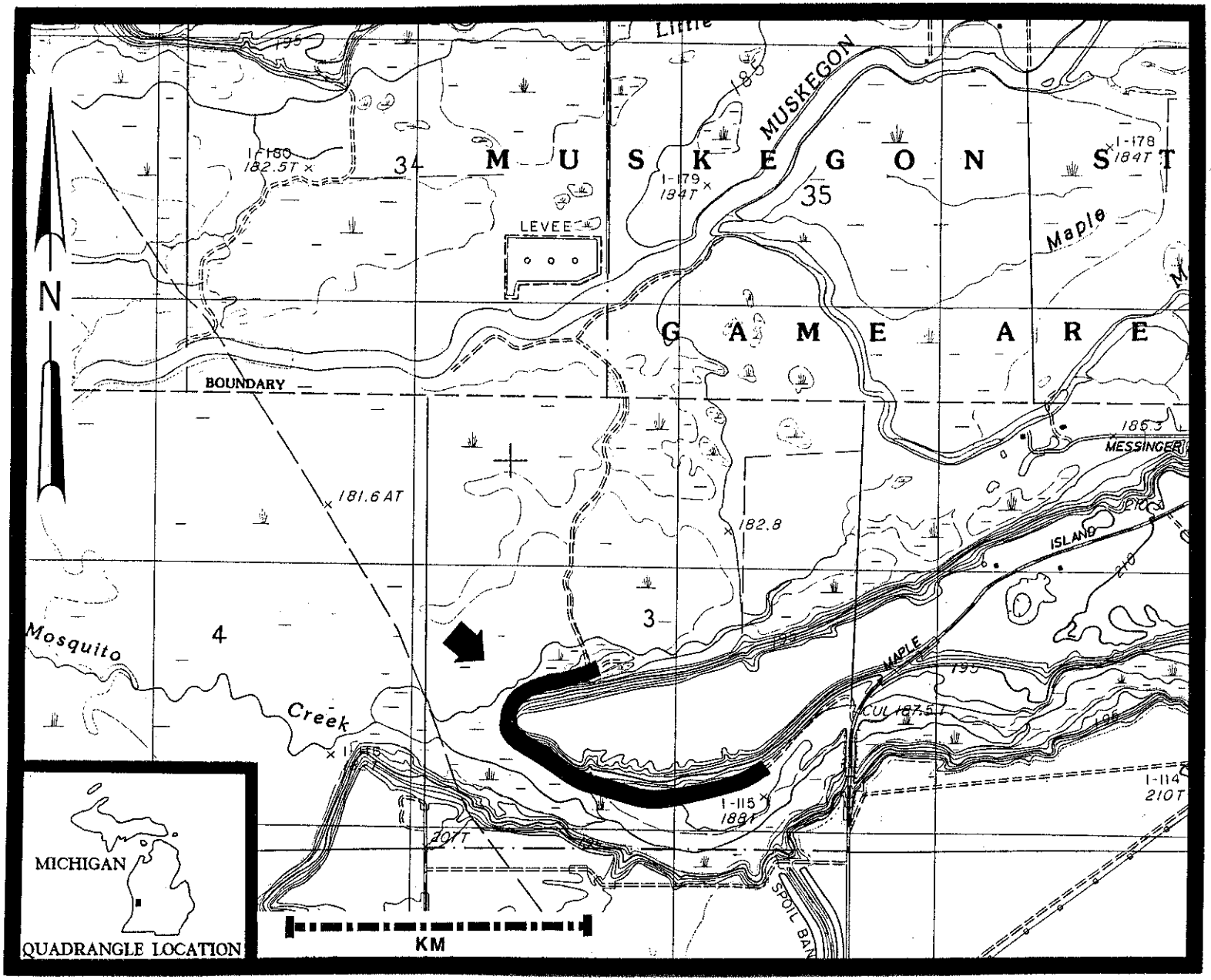
The relevant U.S.G.S. quadrangle sheet shows that the course of the two track runs close to the base of the bluff in the project area. Mean sea level elevation is between 186-189 m here, with the bluff rising rather steeply to a maximum elevation of 207 m along the crest of this pronounced landform. The wetlands flanking Mosquito Creek, which effectively separates this landform from the uplands forming the river valley wall on the south, and dominating the floodplain of the Muskegon River elsewhere in the immediate environs of the project lie at elevations ranging from 181 m to those noted along the aforementioned two track.

The generally sandy soils in this portion of the township supported at the time of our survey several types of vegetation. A pine planatation dominated much of the area through which the two track passes on the south side of the upland peninsula. However, it was often necessary for surveyors to skirt low lying, waterfilled areas approaching to within a few meters of the road. On the north side of the peninsula, terrain tended to flatten out. Here, once again, the marshy vegetation frequently approached the road, but the water was observed to be channelized. Drier sites up slope from the two track supported alternating grass and secondary deciduous tree cover.

PREVIOUSLY RECORDED SITES IN THE GENERAL AREA:

Although no sites have been recorded for the project area, the state site files in the Bureau of History, Department of State contain six references to sites in the general area (Barbara Mead, personal communication). In Section 2 of Egelston Township, 20MU14, a very

Figure 1: MCWMS project area, S 1/2 of Section 3, T10N R15W, Muskegon County, MI.



inadequately located mound site, and 20MU93, the Game Area Headquarters site on the Maple River, have been previously recorded. And in Section 9, 20MU1, a burial mound reported to be situated on top of the bluff, 20MU2, a small earthwork site, 20MU3, the very important Spring Creek site, and 20MU92, purported to represent a Late Woodland encampment, have been entered into the site files. Given the presence of these six sites in the general area, together with the topographic position of the MCWMS project at the base of a pronounced bluff overlooking the extensive Muskegon River floodplain where a tributary stream, Mosquito Creek, enters the river bottoms from the south, one can make a good case for the possibility of potentially significant archaeological resources being present.

PHASE I SURVEY FIELD PROCEDURES:

The purpose of our Phase I study was to conduct a systematic and intensive survey to determine whether the proposed construction of an outfall would impact on important archaeological resources. To this end, the field team employed shovel testing along transects and visual examination of the two track and other areas within the outfall corridor affording surface visibility to achieve coverage that would produce a conclusive recommendation regarding the presence or absence of a site(s) in the zone of impact.

Two transects were established, one on either side of the two track, with 30 cm shovel tests being spaced along each line of survey at intervals of 20 m. The shovel tests were routinely excavated to a depth of 50-60 cm below the surface, with some being extended to a depth in excess of one meter for purposes of examining the local soil profile. Nowhere did shovel tests produce cultural items that could not be related to recent dumping activities or disturbances attributed

to the use of heavy equipment to cut the roadbed and introduce fill where needed to level it. It is further suggested, on the basis of a uniformly disturbed zone of some 30 cm depth below a current cover of grass on the north side of the peninsula, that some prior plowing of at least one portion of the project area may have taken place in the past. Figure 2 shows the approximate locations of 109 shovel tests excavated on the occasion of our survey of the study area.

Surface reconnaissance procedures were used to augment the program of shovel testing as surveyors set about to examine the two track and several bare or raw areas where vegetative cover did not restrict surface visibility. Again, no observations of cultural items of archaeological significance were made.

RESULTS AND RECOMMENDATIONS DERIVED FROM THE PHASE I STUDY:

Based upon a careful on-site examination of the MCWMS project in the S 1/2 of Section 3 of Egelston Township, an evaluation that did not produce a single observation suggesting the presence of archaeological resources in the proposed outfall corridor, it is my opinion, without reservation, that the project to be undertaken will not have an adverse impact on potentially significant remains. Therefore, I recommend that construction work in the project area be permitted to proceed as planned.

Figure 2: Approximate locations of shovel tests ('o') in the project area.