

**U.S. Army Corps of Engineers, Rock Island District
Continuing Authorities Program and Floodplain Management Services Program
Request for Assistance - Site Visit Notes**

Date of Visit: May 26, 2020

Rock Island District Staff: Jim Homann and Jason Smith

Location: Milton, WI

BACKGROUND

On May 12, 2020, State Representative Don Vruwink's (WI) office contacted the U.S. Army Corps of Engineers (Corps) to see if there are any programs to help manage flooding due to lake level rise. A teleconference call was held on May 13, 2020, between Rock Island District (District) staff and Rep. Vruwink and his staff. During this call, the group reviewed photographs and discussed the community concerns in Milton, WI. In addition, Rep. Vruwink was informed that the District requires a formal letter of request from the community. Rep Vruwink provided contact information for the town Chairman, Mr. Bryan Meyer. Mr. Smith contacted Mr. Meyer, who provided a letter of request to Col Steven Sattinger. Mr. Smith and Mr. Homann then coordinated a date and time for a physical site visit to Milton to view the flooding concerns.

SITE NOTES

Town Hall Meeting Location. On May 26, 2020, Mr. Smith and Mr. Homann met with Rep Vruwink, his staff, roads staff (WI DOT and county), and Mr. Meyers at the town hall. Numerous citizens and members of the local media who had learned of the site visit were present to talk with District staff about their individual residences. Mr. Meyer explained to the group that this was not a public meeting and that the District staff was there for a dedicated site visit. Mr. Smith and Mr. Homann offered to provide some background on the District programs and Mr. Meyer was agreeable to this communication. Mr. Smith and Mr. Homann then explained that Congress authorizes the Corps programs and that these programs have various limits as to what can be done, ranging from planning efforts to design and construction of physical features. In addition, Mr. Smith and Mr. Homann explained that the purpose of a site visit is to better understand what Corps authorities may be used to assist the community. Mr. Meyer, Mr. Smith, and Mr. Homann then responded to several questions from the audience.

During the question/answer period, abstracts from geologic and hydrologic studies, completed by researchers at a variety of different colleges and universities, was shared with Mr. Smith and Mr. Homann. Various maps of the lakes and lake level measurements were also provided (Attachment 1). The group was asked about their flooding concerns and offered the following:

- Road Closures
- Structure Damages (structures range from 10-100 years old)

- Basement flooding
- Septic Leach Field impacts
- Commercial Campground impacts

The group also shared a few pieces of data and historical recall.

- Water level is ~0.2 foot higher in March 2020 than during 2008 major flood event.
- Lake levels in the mid-1900s being so low in Clear Lake that pumping water into the lake from other lakes was required.
- Several large rain events (10+ inches) occurring in recent years
- Average precipitation is 35 inches annually but recent years has had average rainfall of 40 inches or greater.
- The City of Milton installed an interceptor storm sewer to carry water from a new subdivision to the Rock River.

State Highway 59 Site Location. Following the meeting at the Town Hall, a smaller contingency departed and the first stop was a low point in State Highway 59 where the water was against the road shoulder. Photographs from this site and others are included in Attachment 2. The WI DOT provided some background on this site, explaining that rising lake levels have not resulted in the roadway being overtopped yet. The group discussed possible resiliency type initiatives and none were identified at this time. The group also discussed the process the WI DOT follows when a road is inundated and what type of mitigation may occur if the roadway were damaged during that inundation.

Commercial Campground Location. The group transited to the commercial campground site. Mr. Meyer and county roads partners explained that the public roadway to the campground as well as the private roadway through the campground were raised last fall to mitigate rising lake levels.

Clear Lake Road. The next stop was Clear Lake Road. This road was actively submerged and had been closed to local traffic. This roadway serves residents living within this housing area. The duration of time the inundation could last and the detour distance are critical factors in what, if any, mitigation might be eligible at this location.

Residence Stop #1. At the road closure signs for Clear Lake Road are two residences, both of which have deployed temporary measures to prevent damages to their garages, homes, and other infrastructure. The group spent a good amount of time talking with one of the homeowners at this location. This landowner has installed a significant amount of visqueen and sandbags to keep water away from the structures. They have active sump pumps pumping out groundwater in these areas as well. Conversation with this landowner revolved around possible solutions and the strength and limitations of agency programs. The residence next door is also at risk of lake level flooding but the homeowners installed more permanent earthen berms and the residence appears to be higher in elevation. Both residences are believed to have functional septic systems based on conversations with the landowner that was present.

Residence Stop #2. A short drive from Residence Stop #1, the group stopped at another residence. The garage on this structure is actively flooded and the earthen berms and subpump systems are operating to keep the water out of the residence. There is an access road beyond this house that allows neighbors to access their properties. This access road has been raised in recent months to accommodate neighbors accessing their properties.

CONCLUSIONS

The community reported several problems resulting from lake level rise. The community has been proactive in mitigating many of the potential damages through community and county actions at the commercial campground to private resident actions in elevating access roads and sandbagging structures. It is difficult to know how high the lake level may rise as there is no surface outlet from the lakes. All losses are through either evaporation or infiltration.

State Highway 59. The concerns at State Highway 59 currently do not rise to the level of action. The WI DOT actively monitors water levels, and in the event of water level rise inundating the roadway, they would shut down the road. If the roadway were damaged during this inundation, restoration efforts may include some type of road raise to prevent future inundation and road closure.

Commercial Campground. The commercial campground site has been mitigated and there is no further action at this time as the campground is fully functional. In addition, any actions here would need to be considered carefully as mitigation may be for a single property owner, which is not permitted. This would not be the case if the public road and the private campground were both impacted and required mitigation.

Clear Lake Road. There may be a benefit in raising Clear Lake Road to assure residents and emergency responders access to all properties in a timely manner. Whether the benefits rise to the level of mitigation action is largely dependent on detour time. Duration of flooding is unknown given lake level rise is a function of precipitation and evaporation.

Residence Stop #1. The two residences at this location have deployed temporary flood protection measures to mitigate the flooding to their structures. These structures may warrant permanent flood mitigation actions but it remains uncertain if benefits would exceed the costs of mitigation. Typical structural flood mitigation solutions for individual structures such as these are to build a ring levee or berm to protect the structures. The landowners have already constructed temporary versions of this type of structural measure. Non-structural flood solutions for individual structures such as these are to elevate or relocate the structures to higher ground. Some type of study could be conducted to evaluate the best option for these structures. It is unlikely that the study would result in determination of Federal Interest (benefits of damages prevented exceed costs to do work) leading to cost sharing of design and construction.

Landowners at this location asked about connecting these lakes to the interceptor storm sewer that outlets to the Rock River. This is a potential mitigation option; however the concern with this option is the high cost to install a larger interceptor sewer pipe and pump station as well as the watershed impacts of passing additional flows to the Rock River which has documented riverine flooding challenges. These options may be costly and may not meet a positive benefit to cost ratio.

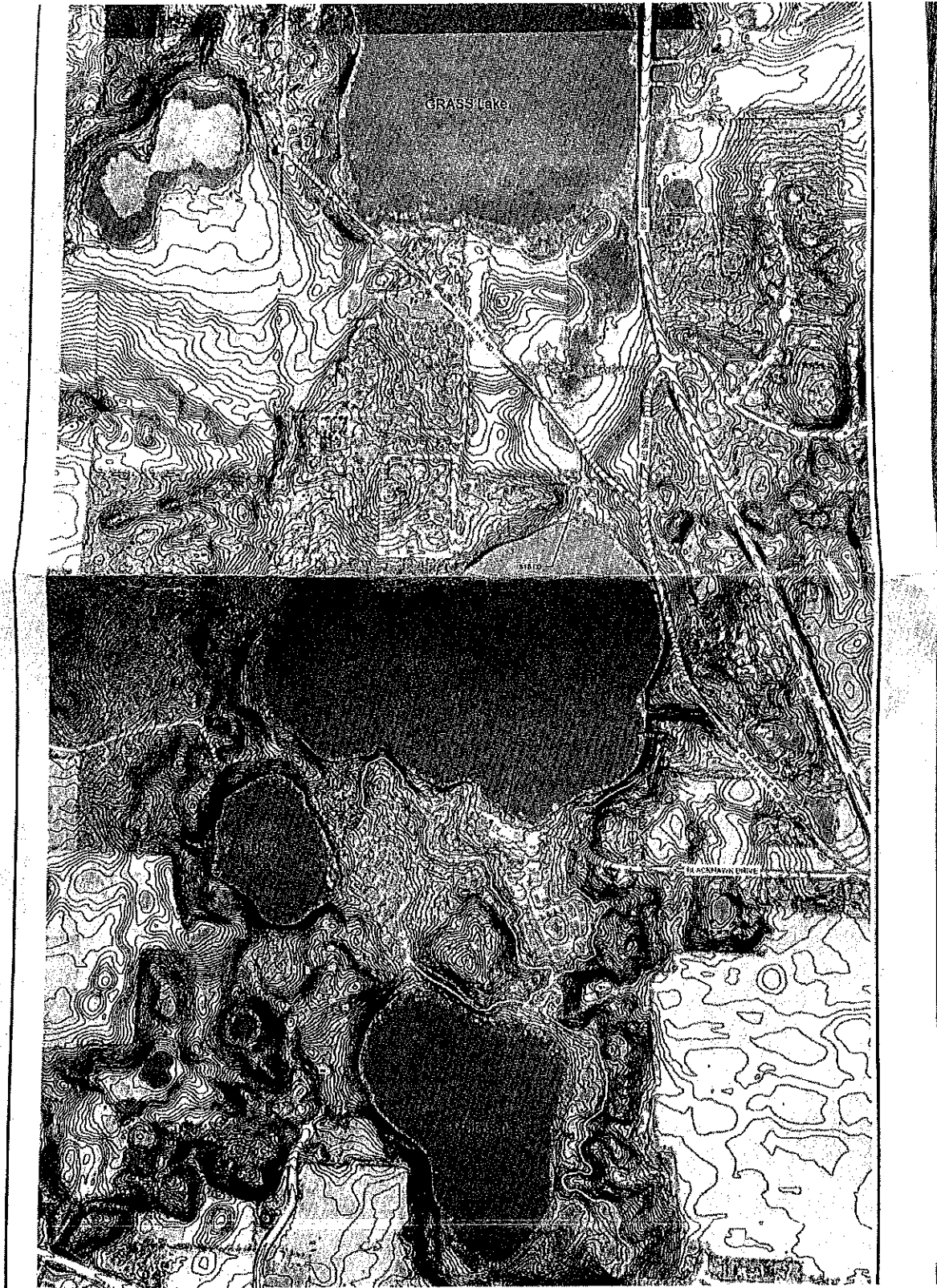
Residence Stop #2. Protection of a lone private property is not allowed in Corps programs. This location also has an access road to multiple other residences so this site may be eligible for mitigation if the mitigation measure protected the structure and the access to the other properties. At this time, the access road has been raised so there is no need for mitigation. If the lake level continues to rise and these residences are inaccessible, then future mitigation measures may be appropriate and eligible for consideration in Corps programs.

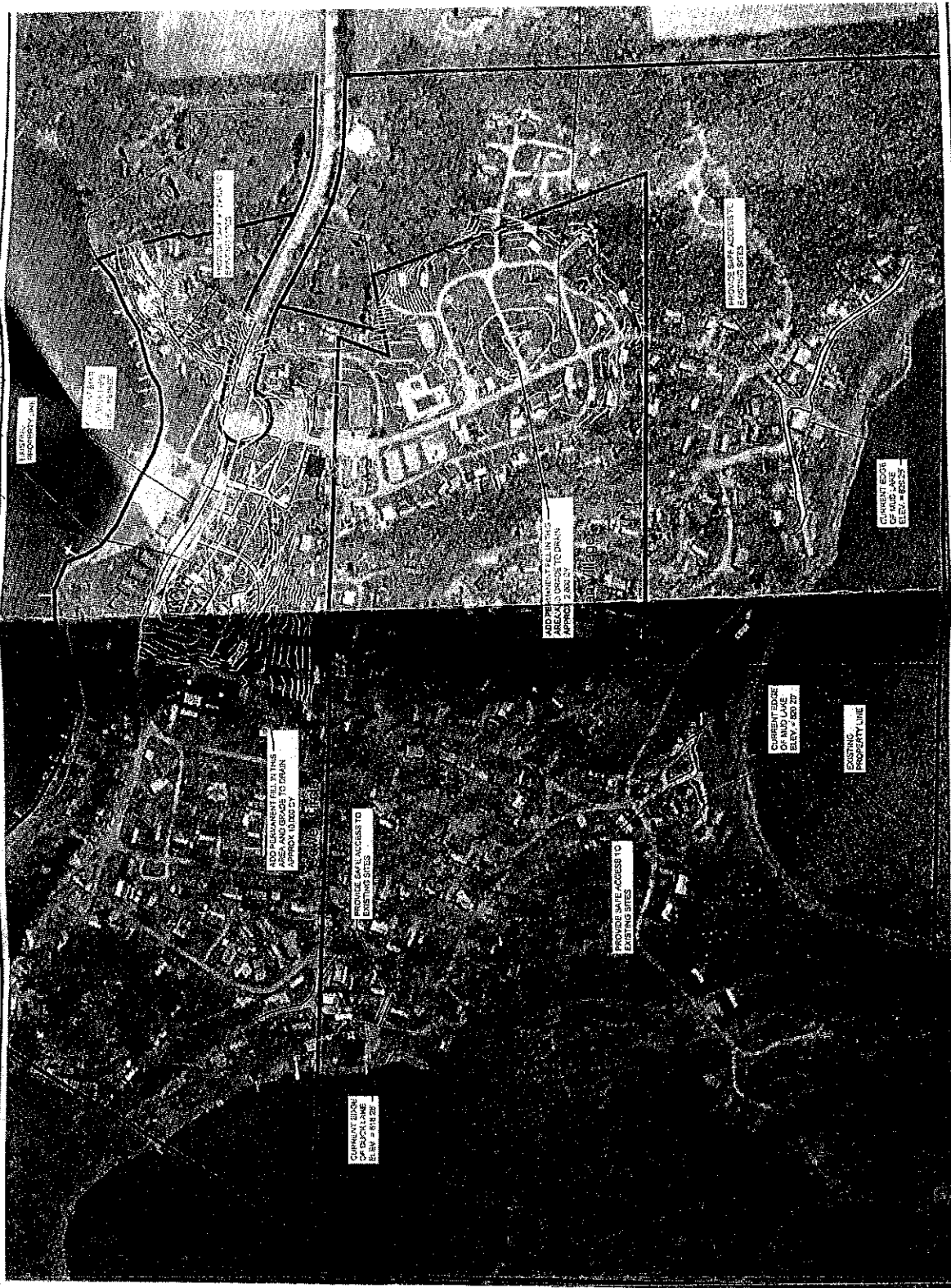
RECOMMENDATIONS

At this time there is no recommended action for State Highway 59 location or the commercial campground location. Clear Creek Road and the two residence locations may be eligible for Corps programs. A study would be needed to determine if there is a Federal Interest. Given a minimal stretch of roadway and very few structures at risk, there is a low likelihood of Federal Interest resulting in design and construction activities. Therefore, the recommended way forward to provide the community technical support is through the Floodplain Management Services Program. This program will allow for an appropriate level of technical analysis and coordination with state and Federal agencies to provide the community information they can use to advance mitigation actions.

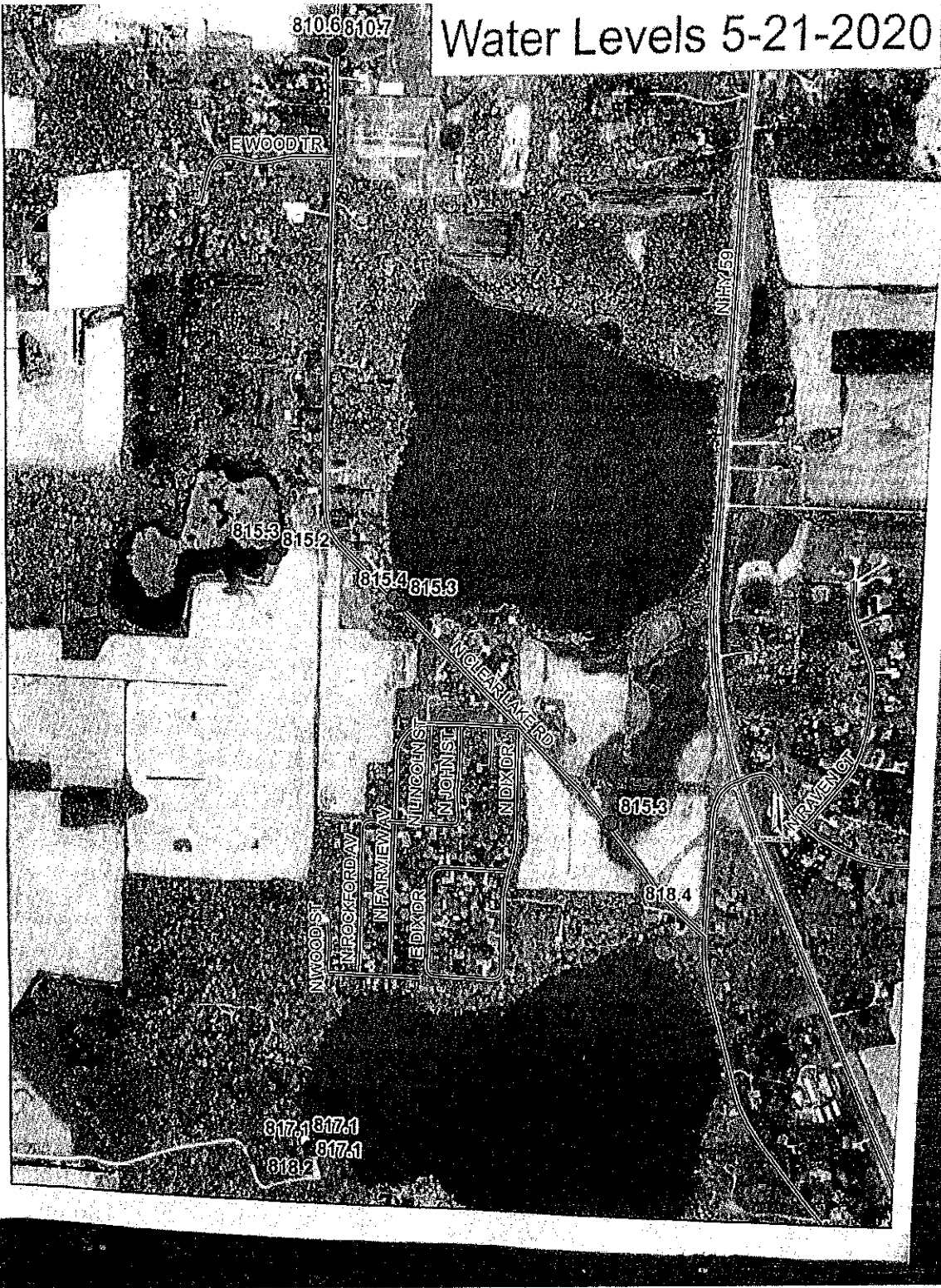
ATTACHMENT 1

MAPS OF THE LAKES AND LAKE LEVEL MEASUREMENTS





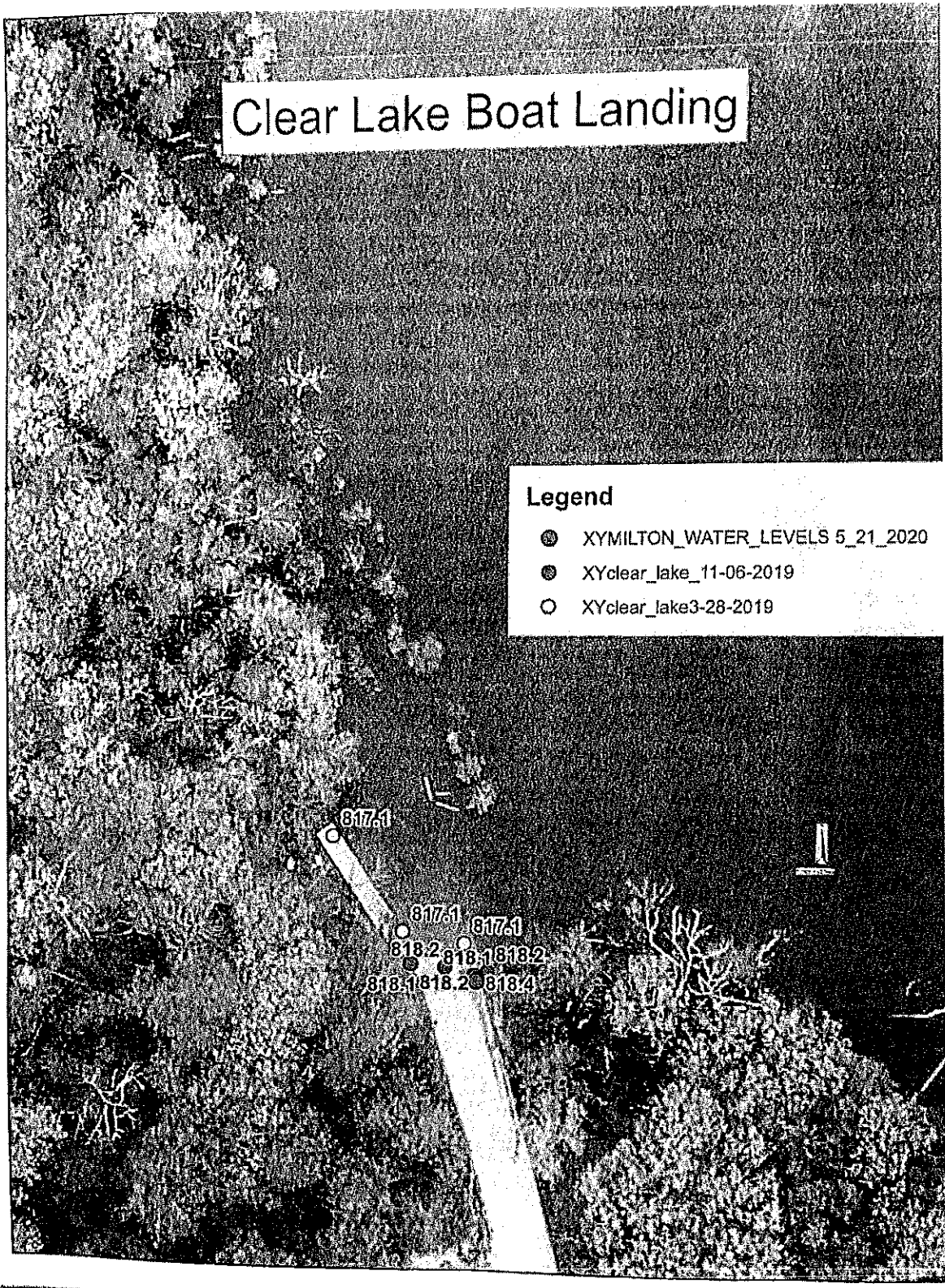
Water Levels 5-21-2020



Clear Lake Boat Landing

Legend

- XYMILTON_WATER_LEVELS 5_21_2020
- XYclear_lake_11-06-2019
- XYclear_lake3-28-2019

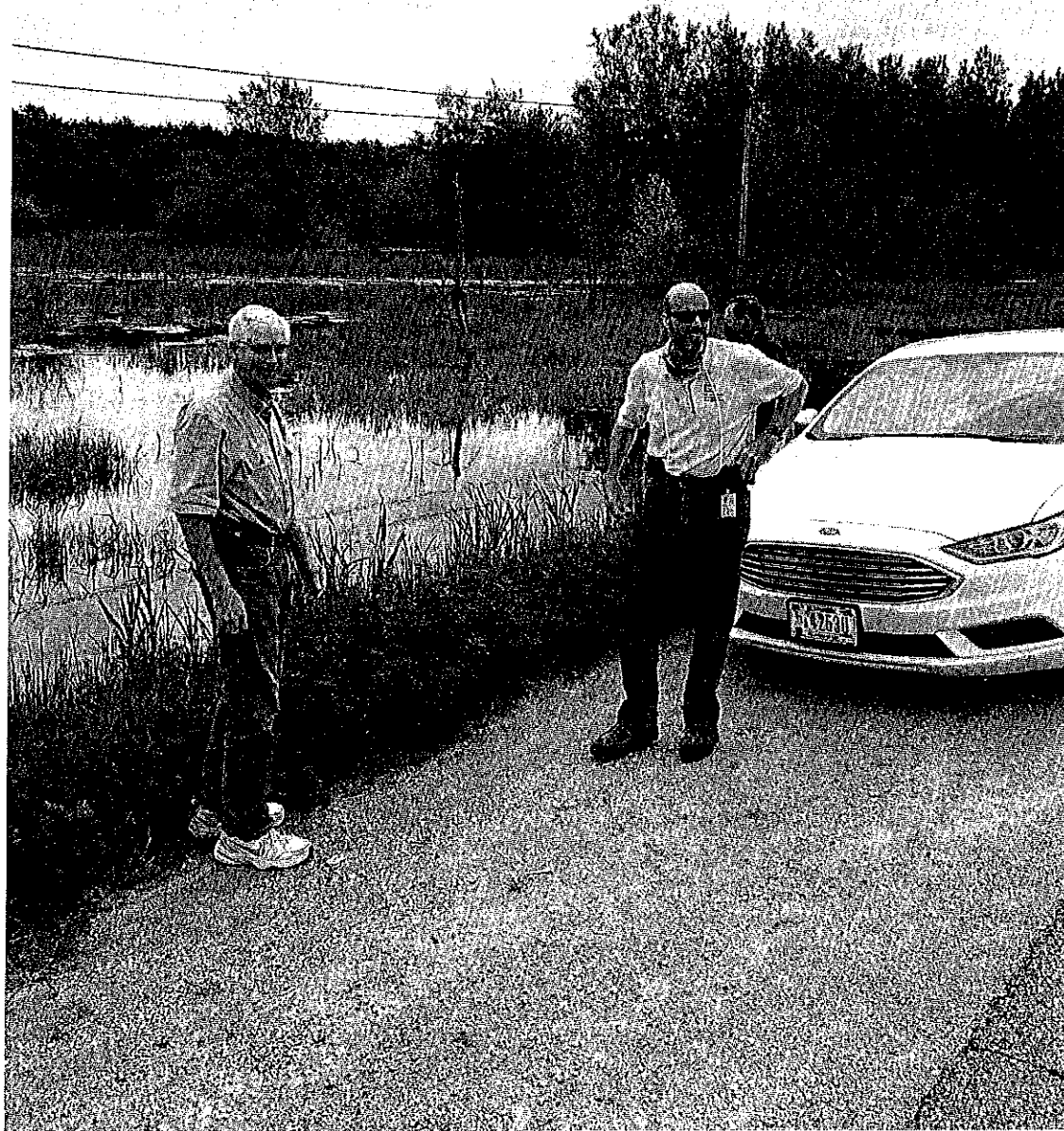


ATTACHMENT 2
SITE VISIT PHOTOGRAPHS

State Highway 59



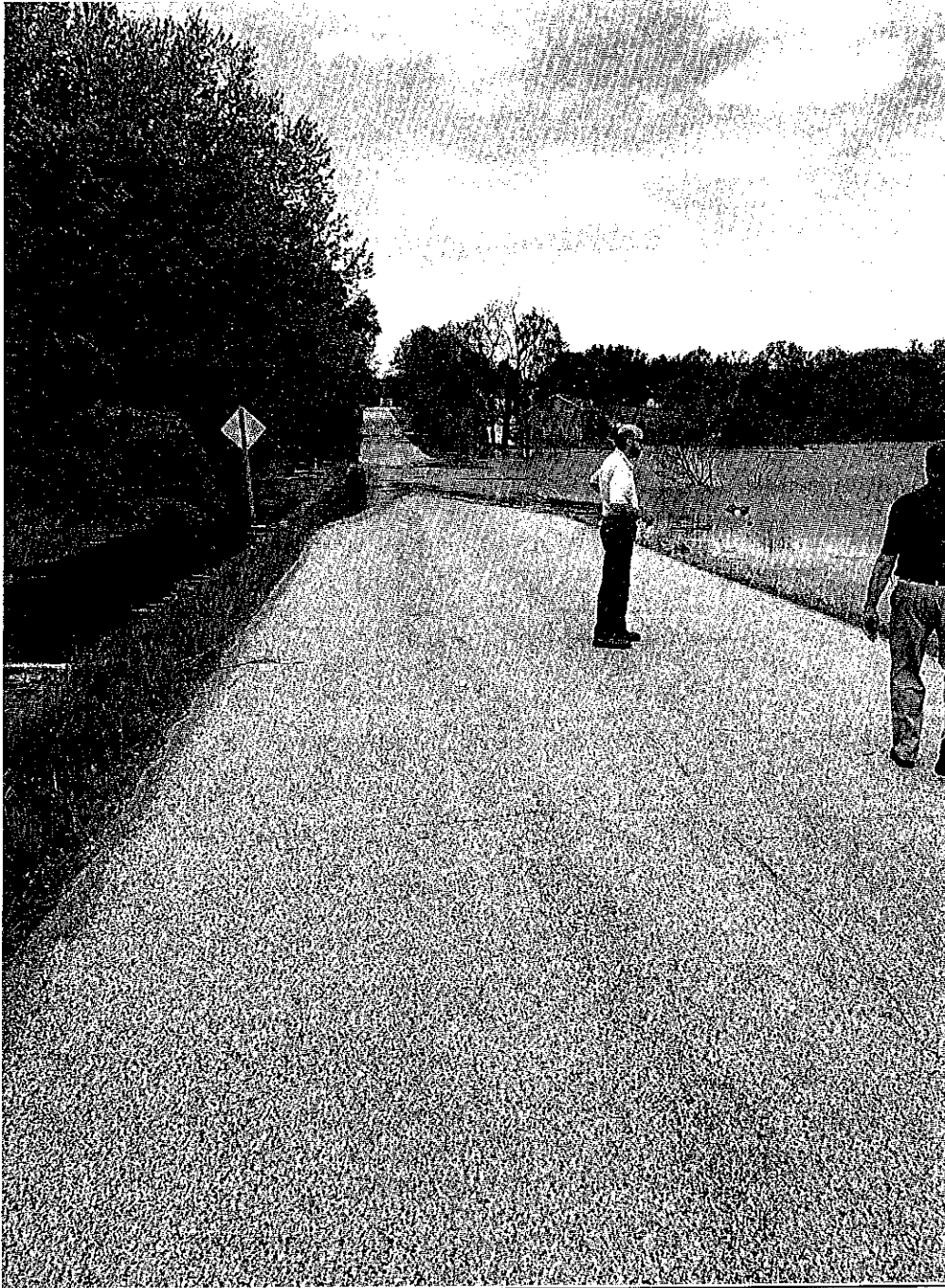




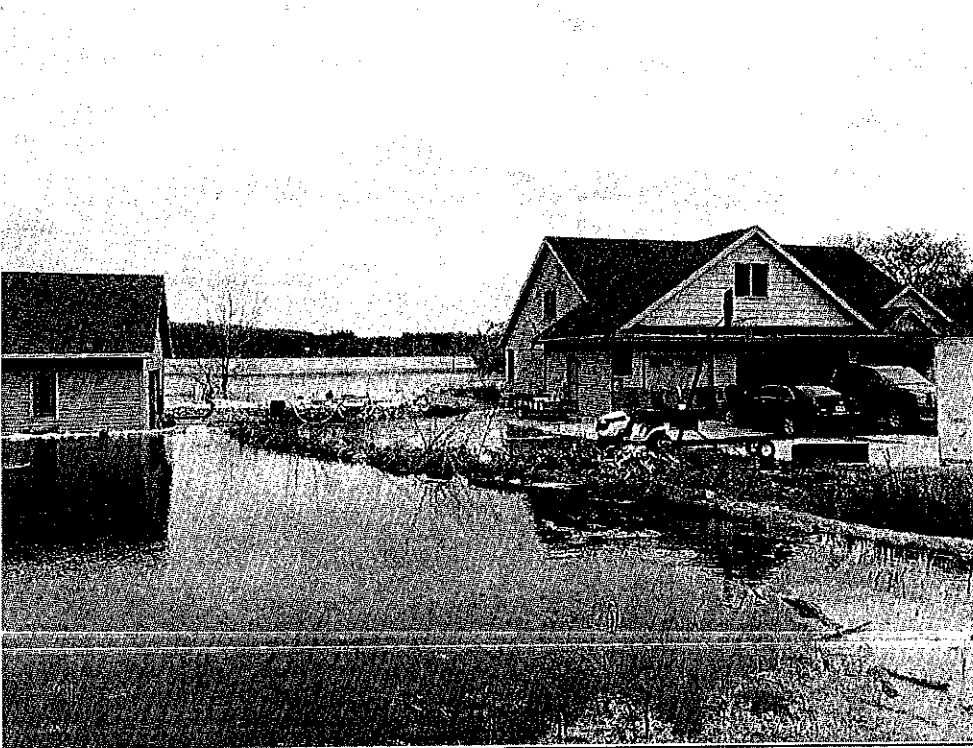
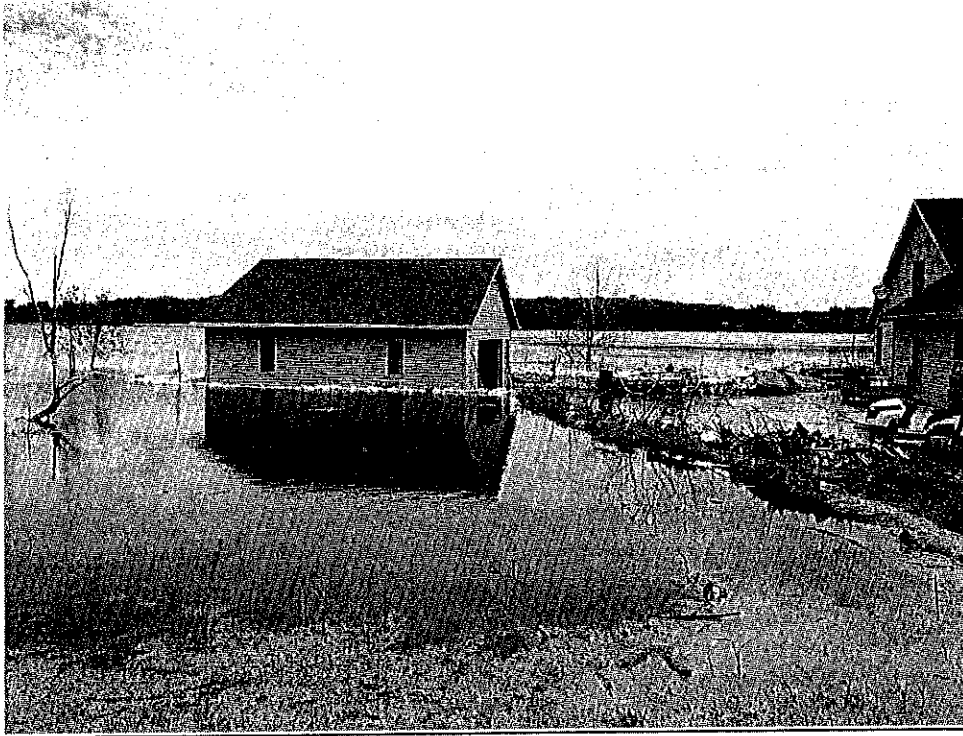
Commercial Campground

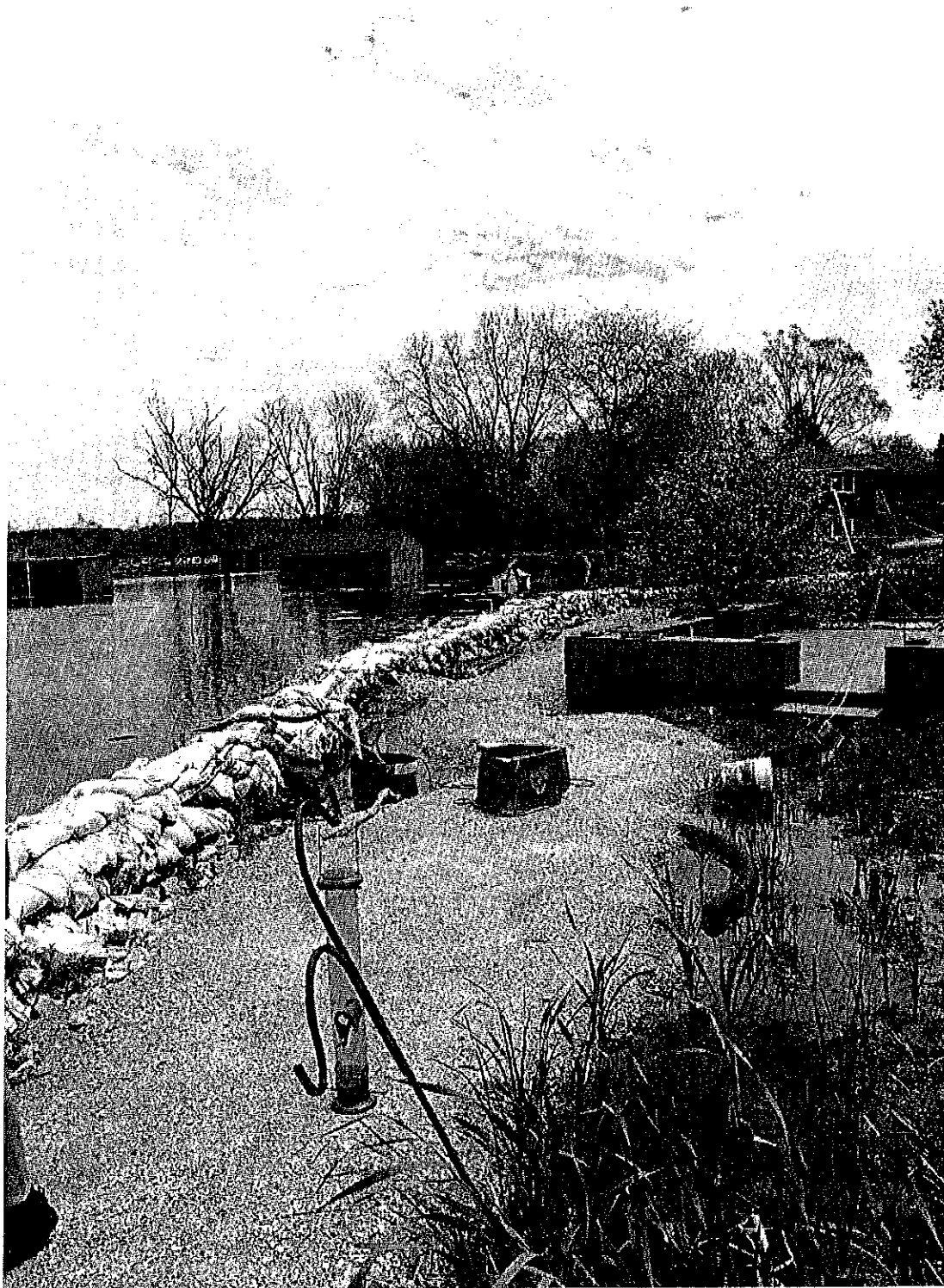
No photographs were taken at this location.

Clear Lake Road

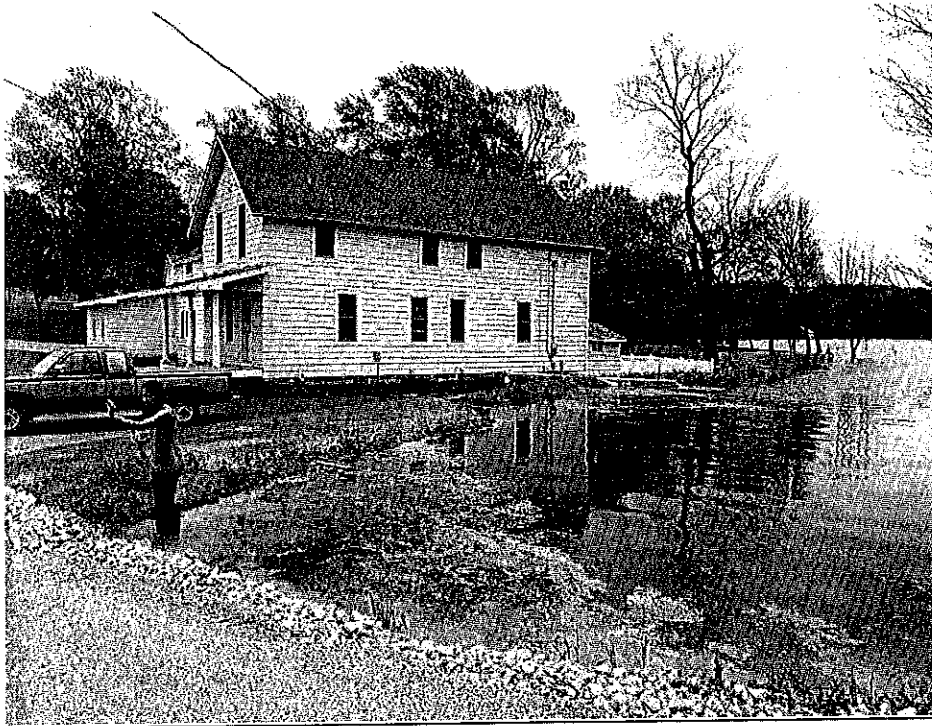


Residence Location #1

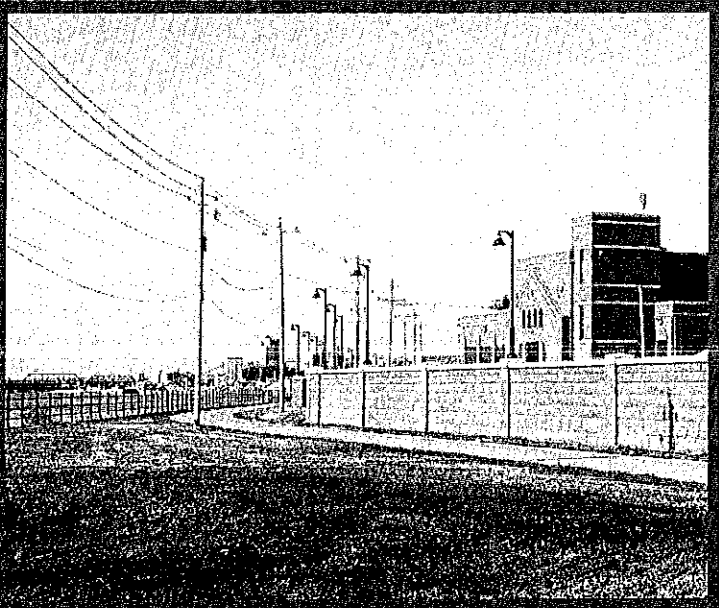
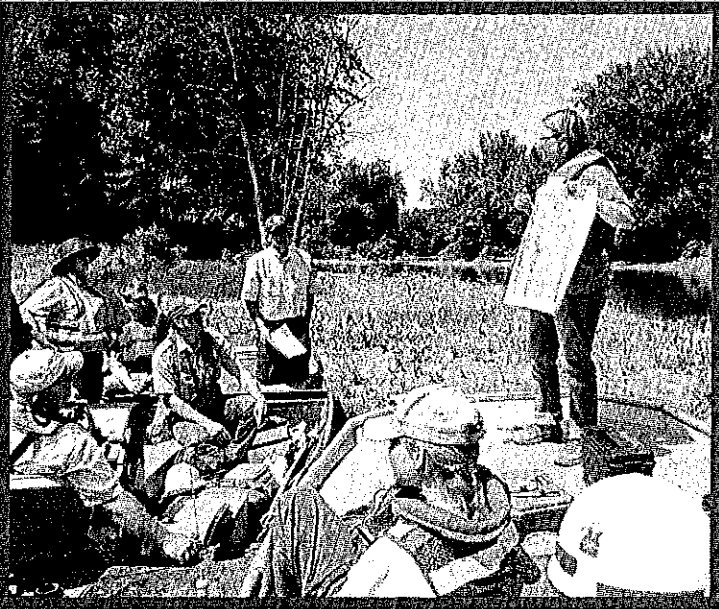




Residence Location #2







US Army Corps
of Engineers®

Rock Island District
**Civil Works
Policy
Guidebook**

*Continuing Authorities Program,
Planning Assistance to States, and
Floodplain Management Services*

July 2017

Introduction

The U.S. Army Corps of Engineers is the Nation's primary water resources development agency. Congress assigned the Corps of Engineers this civil works responsibility.

The Corps of Engineers' water resources program began in 1824 when Congress provided funds for improving river navigation. Since then, the Corps of Engineers has been involved in developing recreation and commercial navigation, reducing flood damage, and restoring ecosystems. Along with these missions, the Corps of Engineers generates hydropower, makes water supply available to cities and industry, and regulates development along navigable waters.

The Corps of Engineers is responsible for the Inland Waterway Navigation System, which includes the locks and dams on the Mississippi River and Illinois Waterway. We are also involved with river habitat, managing the Upper Mississippi River System - Environmental Management Program, which focuses on habitat rehabilitation and enhancement projects, such as island creation and wetland enhancement, as well as long-term resource monitoring. We have also worked with many communities to plan, design and construct flood risk management projects.

The primary mission areas of the Corps of Engineers are:

- Commercial Navigation
- Flood Risk Management
- Ecosystem Restoration
- Emergency Response
- Recreation
- Federal Real Estate Management
- Regulatory Program and Permit

The following provides information on the services that the Corps of Engineers can provide sponsors and partners.

If your community, local or state government, or non-government organization is seeking a partner to assist with a water and related land resources study or project, call our office or send a letter to the address below. A sample letter is provided for reference.

District Engineer
U.S. Army Engineer District, Rock Island
ATTN: Planning, Programs and Project Management Division
Clock Tower Building - P.O. Box 2004
Rock Island, Illinois 61204-2004
Phone: (309) 794-5341
Email: customeroutreach@usace.army.mil

Rock Island District Points of Contact for General Inquiries and Assistance:

Jason
*Flood Risk Management &
Continuing Authorities Program*
Phone: (309) 794-5690

Jim
*Environmental Continuing Authorities &
Floodplain Management Services*
Phone: (309) 794-5704

Useful Links and Resources:

Sample Letter for General Request for Assistance

[Type/Print on Official Letterhead]

(Date)

District Engineer
U.S. Army Engineer District, Rock Island
ATTN: Planning, Programs and Project Management Division
Clock Tower Building
P.O. Box 2004
Rock Island, Illinois 61204-2004

Dear Colonel XXX:

In accordance with the USACE authority [*insert the name of the authority*], the [*state, city, county, town, non-profit organization*] is requesting U.S. Army Corps of Engineers assistance in addressing an [*state your problem including, as appropriate, the proposed study area, a list of any public infrastructure or endangered species that might be treated, photographs of problem area, and any other supporting documents.*]

In the closing [*state the Point of Contact for the effort, title, phone and email.*]

Sincerely,

Signature and Title

Links to Model Project Partnership Agreements:

Model Ecosystem Restoration PPA

http://www.usace.army.mil/Missions/Civil-Works/Project-Partnership-Agreements/model_er/

Model Structural FRM PPA

http://www.usace.army.mil/Missions/Civil-Works/Project-Partnership-Agreements/model_sfrm/

Model FCSA for feasibility planning study

http://www.usace.army.mil/Portals/2/docs/civilworks/Project%20Planning/ppa/19251_28oct2016.docx?ver=2016-11-07-100659-017

Overview of Authorities:

Continuing Authorities Program					
Purpose	Types of Projects	Authority	Feasibility Phase Cost Share Federal/Non-Federal	Implementation Phase Cost Share Federal/Non-Federal	Federal Project Limit
Project Modifications for Improvements to the Environment	Modifications to Corps structures, operations, or implementation of measures in affected areas	Section 1135 of Water Resources Development Act of 1986, as amended	100% / 0% for initial \$100,000; 50%/50% remaining cost	75% / 25%	\$10 million
Beneficial Use of Dredge Materials	Creation of aquatic and wetland habitats in conjunction with construction or maintenance dredging of Federal Navigation Projects	Section 204 of the Water Resources Development Act of 1992	100% / 0%	65% / 35% ^{1 2}	\$10 million
Aquatic Ecosystem Restoration	Manipulation of the hydrology in and along bodies of water, including wetlands and riparian areas	Section 206 of the Water Resources Development Act of 1996	100% / 0% for initial \$100,000; 50% / 50% remaining cost	65% / 35%	\$10 million
Emergency Stream Bank and Shoreline Protection	Construction of bank protection for endangered highways, bridge approaches, municipal water supply systems, sewage disposal plants, churches, hospitals, schools, and non-profit public services and known cultural sites that are endangered by flood-caused bank and shoreline erosion.	Section 14, 1946 Flood Control Act, as amended	100%/0% for initial \$100,000; 50%/50% remaining cost	65% / 35%	\$5 million
Small Flood Risk Management Projects	Projects can include levees, floodwalls, impoundments, pumping stations, and channel modifications as well as non-structural measures. Non-structural measures can be flood proofing, relocation of structures, and flood warning and preparedness systems.	Section 205 of the Flood Control Act of 1948, as amended	100% / 0% for initial \$100,000; 50% / 50% remaining cost	65% / 35% ^{1 2}	\$10 million
Clearing and Snagging of Waterways		Section 208 of the Flood Control Act of 1954, as amended	100% / 0% for initial \$100,000; 50% / 50% remaining cost	65% / 35%	\$500,000
Planning Assistance to States					
Assistance to States, local governments, Native American Tribes and other non-Federal entities, in the preparation of comprehensive plans for water and related land resources	Studies can include: Water Supply and Demand, Water Quality, Environmental Conservation and Restoration, Wetland Evaluation, Dam & Levee Safety/Failure, Flood Risk Management, Floodplain Management, Land Use, Master Planning, and GIS Development	Section 22 of the Water Resources Development Act of 1974, as amended	50% / 50% (non-Federal cost share can include 100% work in kind)		
Floodplain Management Services					
Provide full range of technical services and planning guidance needed to support effective floodplain management	Studies can include: Floodplain Delineation/Flood Hazard Evaluation Studies, Dam or Levee Break Analysis, Flood Warning/Preparedness, Regulatory Floodway, Comprehensive Floodplain Management, Urbanization Impact, Storm Water Management, Hydrologic, Hydraulic and Sediment Transport Modeling	Section 206 of the 1960 Flood Control Act (PL 86-645), as amended	Services are provided at no cost to state, regional and local governments, and Native American tribes.		

¹ For structural flood damage reduction purpose, non-Federal share is 35% up to 50% (based on cost of Land, easements, rights of way, relocations, disposal sites-LERRDS), plus 5% must be in cash.

² For non-structural flood damage reduction purpose, non-Federal share limited to 35%, with no 5% cash requirement.

Approval Process for USACE Studies Under the Continuing Authorities Program

A District drafts a **Federal Interest Determination (FID)** presenting a determination that there is a Federal interest in pursuing a feasibility study to determine a viable solution to the appropriate CAP authority. The FID is transmitted to the Major Subordinate Command (MSC) for review and approval.

A **Project Management Plan** detailing work tasks, study cost, and study schedule is prepared by USACE and the non-federal sponsor.

A draft **Detailed Project Report and NEPA document** documenting the recommended plan are released for concurrent public, agency, and policy reviews.

The **Design and Implementation (D&I) Phase** is conducted to prepare design and construct the project. A D&I agreement is signed by USACE and the non-Federal sponsor.



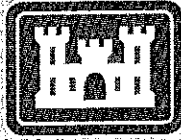
Local interests request the USACE investigate potential solutions to water resource problems. A site visit with the locals is typically performed at full Federal expense.

A **Feasibility Cost Sharing Agreement (FCSA)** is executed to complete the decision document. The study is initially federally funded up to \$100,000. Any remaining feasibility phase costs are shared 50/50 with the non-federal sponsor.

The study team's recommended plan is presented to MSC senior leaders and reviewers at the **Alternative Formulation Briefing**. The senior leaders approve the release of the draft feasibility report and NEPA document. (Note: under draft guidance, this meeting will be called the MSC Decision Milestone).

A final **Detailed Project Report and NEPA document** is prepared by the District. It is transmitted to the MSC for review and approval.

Construction of the project commences if funding is available within the HQUSACE CAP. Costs are shared as specified in the authorizing legislation for the applicable section.



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