

Welcome!

The purpose of this meeting is to:

- Build public awareness and understanding of the project
- Meet the project team
- Ask questions
- Provide opportunity for public input



Project Understanding & Goals

Project Purpose

The purpose of this project is to allow adaptive water level management of Pine Lake throughout the year.

Today's Needs

- Runoff causes rapid increases in lake levels.
- Flooding has occurred in 13 of the last 33 years.
- Lower lake levels in late summer, fall, and winter result in recreation issues and fish kills.



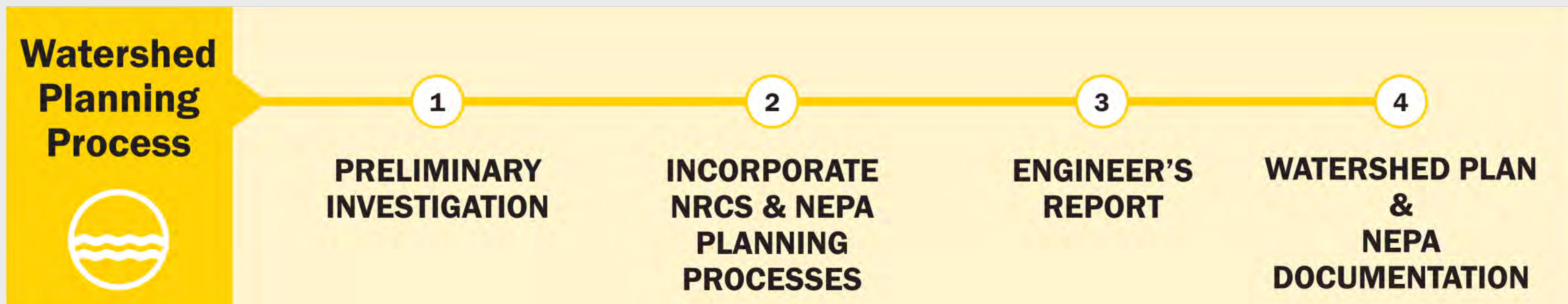
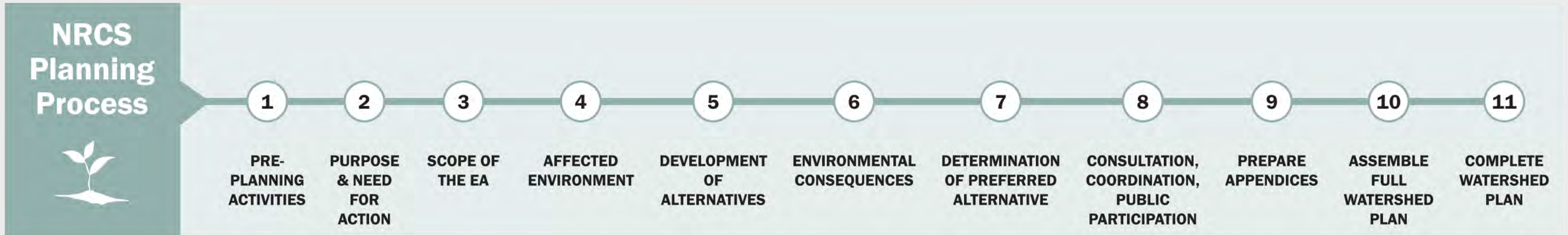
Historical Context

- A 45 square mile drainage area flows into Pine Lake.
- In 1981, a sheet pile dam with two adjustable stop bays was built to raise the lake level and provide a means to manage the level.

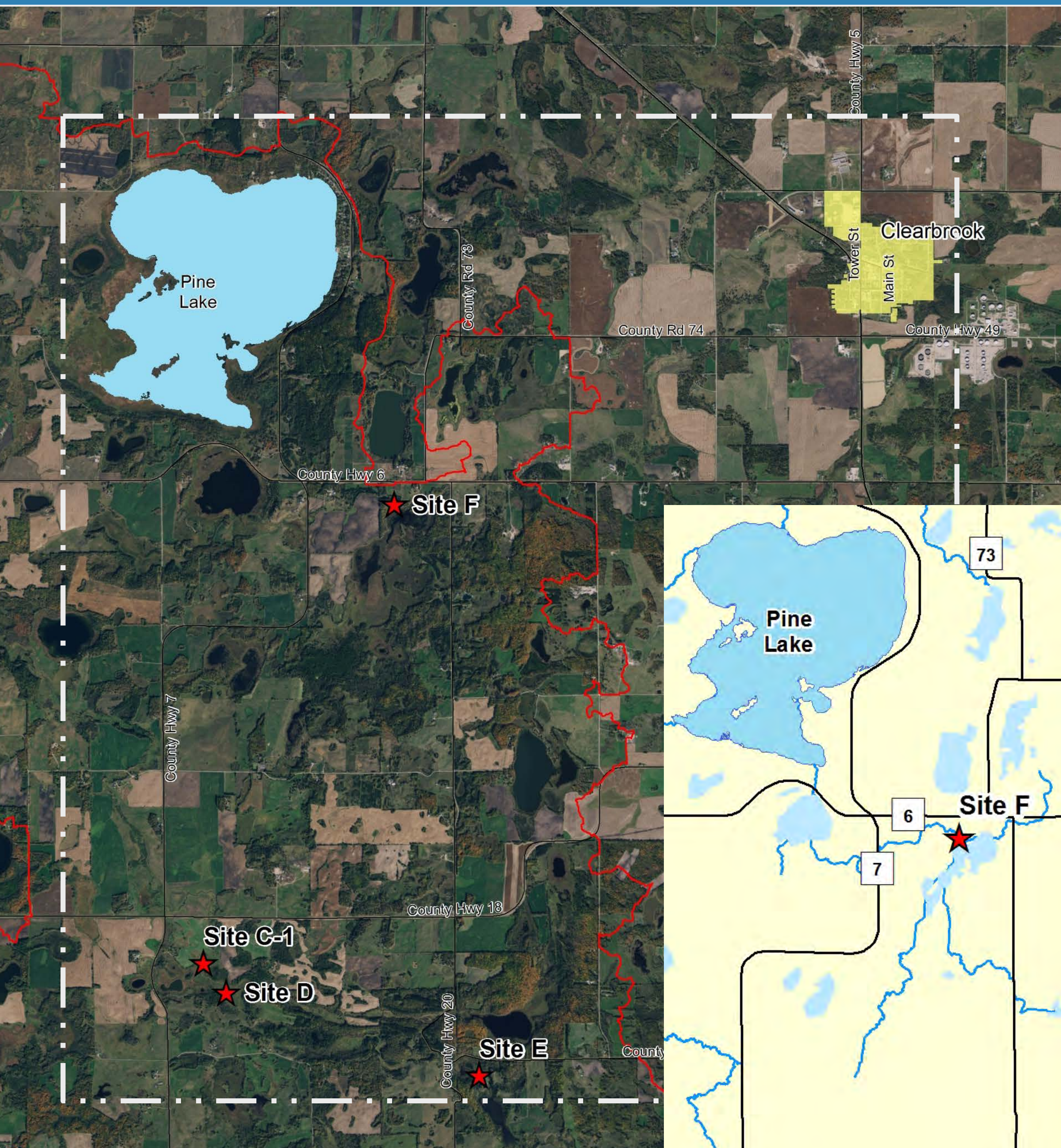
Goals for Tomorrow

- Contribute to regional goals of reducing peak flow rates along the Red River by 20% during flooding events.
- Construct a new outlet to improve operational flexibility and operator safety.
- Improve wildlife habitat and recreational activities.
- Construct upstream retention basins to reduce flood damages at Pine Lake and areas downstream from Pine Lake.

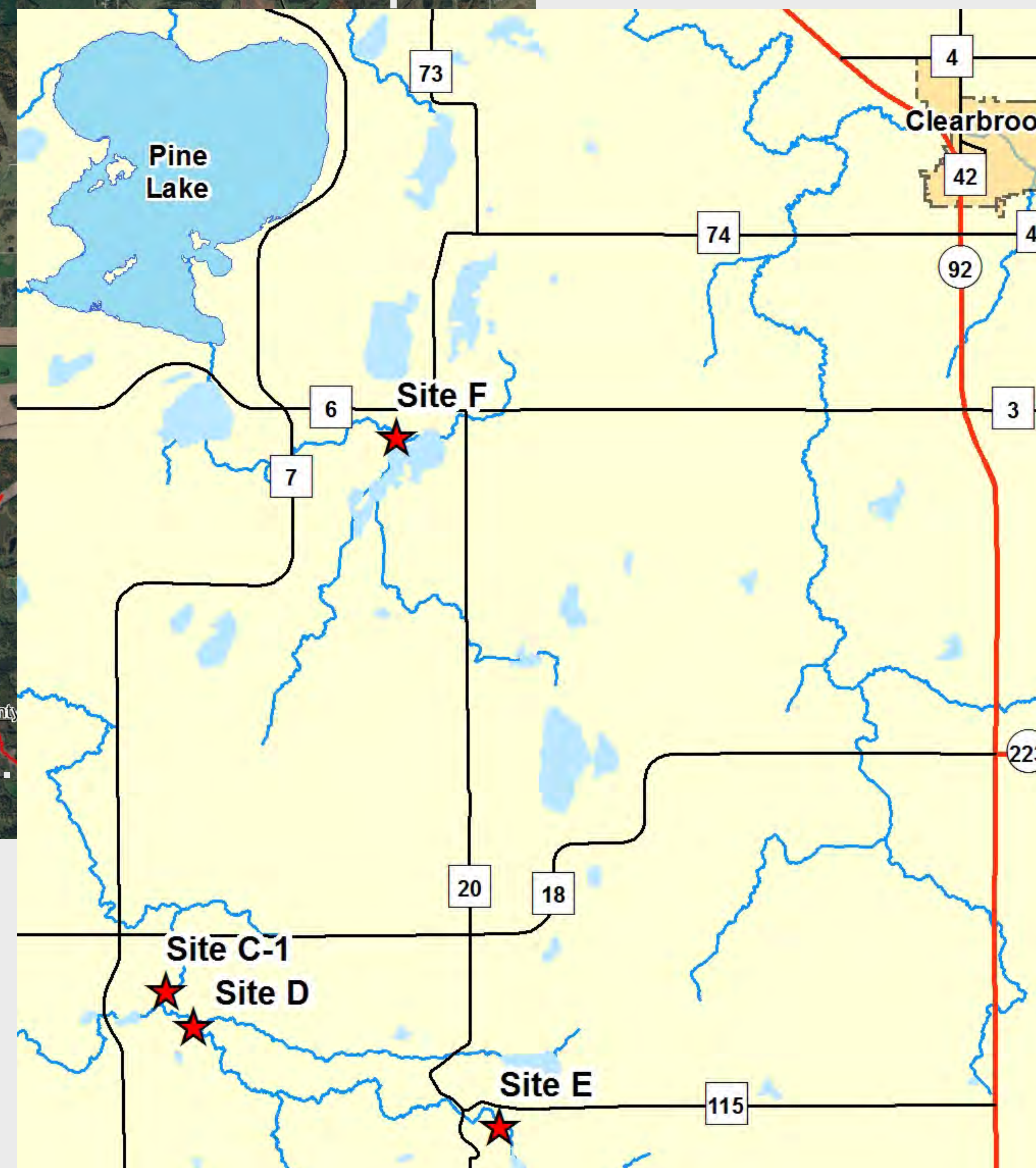
Planning/Evaluation Process



Project Location



After evaluating many potential sites, C-1, D, & E were identified as potential locations to create new retention basins.



The operations plan for an existing retention basin at Site F could be modified to increase gated storage volume.

Separate or combined, these basins may help achieve Pine Lake flood damage mitigation or regional flow reduction goals.

Human & Natural Environment Factors

-  Human Health & Safety
-  Erosion & Sedimentation
-  Archeological & Historical Resources
-  Fish & Wildlife Resources/
Threatened & Endangered Species
-  Streams, Lakes & Wetlands
-  Water Quality
-  Floodwater Property Damages
-  Socioeconomics
-  Downstream Peak Flow Rates and Flow Volumes
-  Transportation
-  Prime Farmlands
-  Land Use & Management

Resource Impacts

| Resources | Anticipated Level of Impact | | |
|---|-----------------------------|--------|------|
| | High | Medium | Low |
| Air Quality | | | None |
| Cultural/Historic Properties | | | X |
| Ecological Critical Areas | | | None |
| Environmental Justice | | | None |
| Fish & Wildlife Resources | | | X |
| Wildlife Community | | | X |
| Fish Community | | | None |
| Regional Water Resources Plans | | | None |
| National Parks, Monuments, and Historical Sites | | | None |
| Natural Areas | | | None |
| Parklands | | | None |
| Prime Farmland | | | None |
| Riparian Areas | X | | |
| Scenic Areas | | | X |
| Soils (erosion, sedimentation, etc.) | | X | |
| T & E Species | | | X |
| Waterbodies (Waters of the US) | X | | |
| Water Quality | | | X |
| Water Quantity | | | X |
| Wetlands | X | | |
| Land Use, Recreation, and Visual Resources | | | X |
| Public Health & Safety | | | X |

High: Most likely will be affected and will be considered in the analysis of all alternatives.
Medium: May be affected by some alternatives.

Low: Will be considered, but not expected to be significant.
None: Need not be considered.

Feasibility Study Overview

The purpose of the Feasibility Study is to investigate Federal interest in meeting the objectives identified in the Purpose and Need.

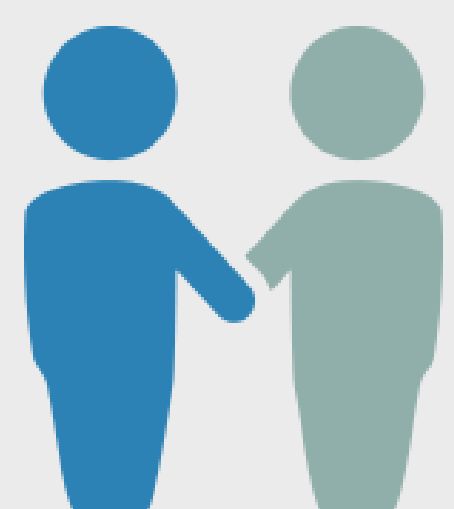
The scope of the study consists of:



Identification of problems and opportunities associated with flood damage reduction and related water resource concerns.



Formulation of alternative measures for environmental restoration, incidental reduction of future flood damages, and maximization of benefits.



Identification of the opportunity and the role for NRCS participation in water resources planning and environmental restoration.

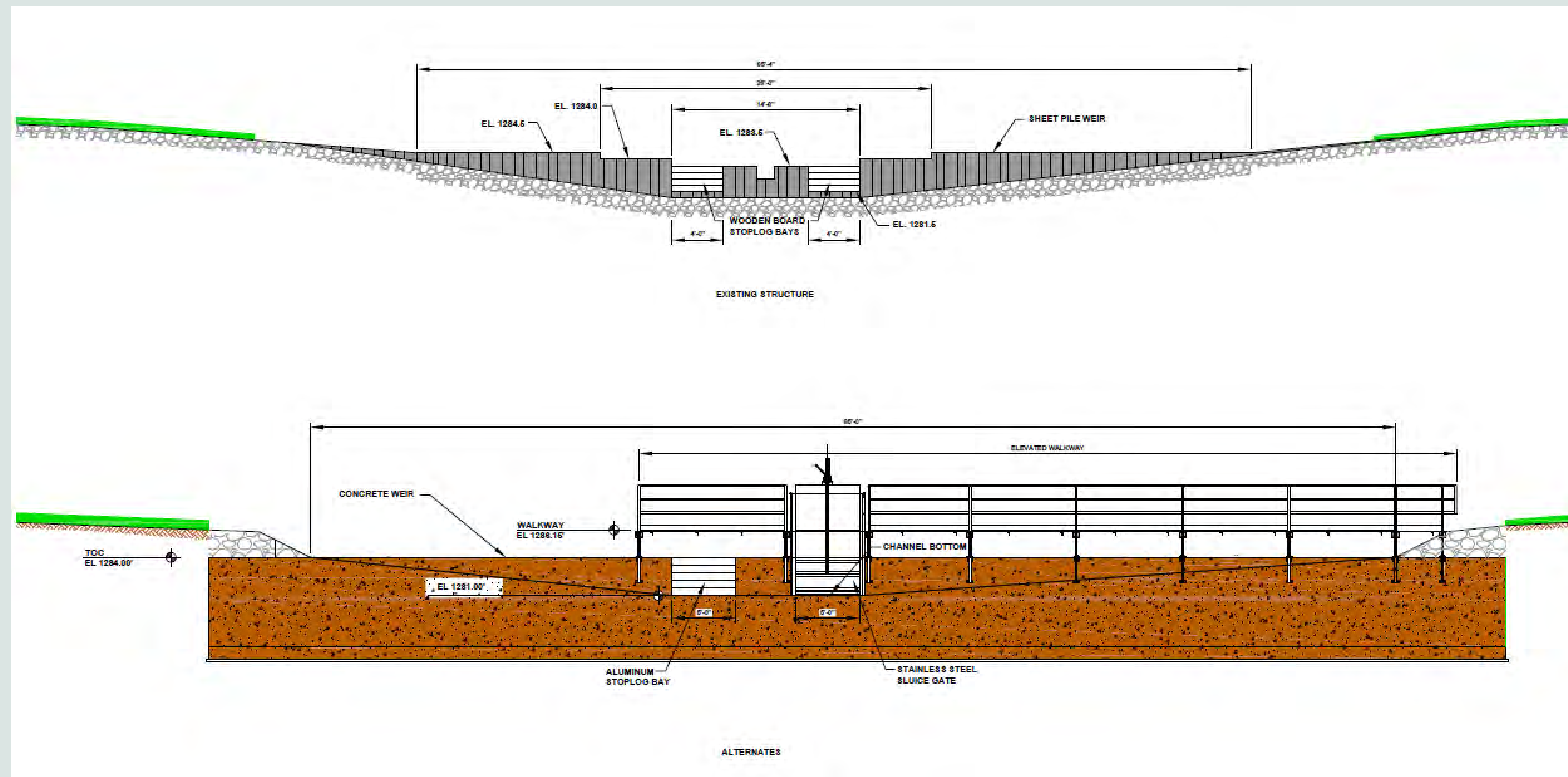
Lake Outlet Modifications

The control structure downstream from the outlet of the lake would include:

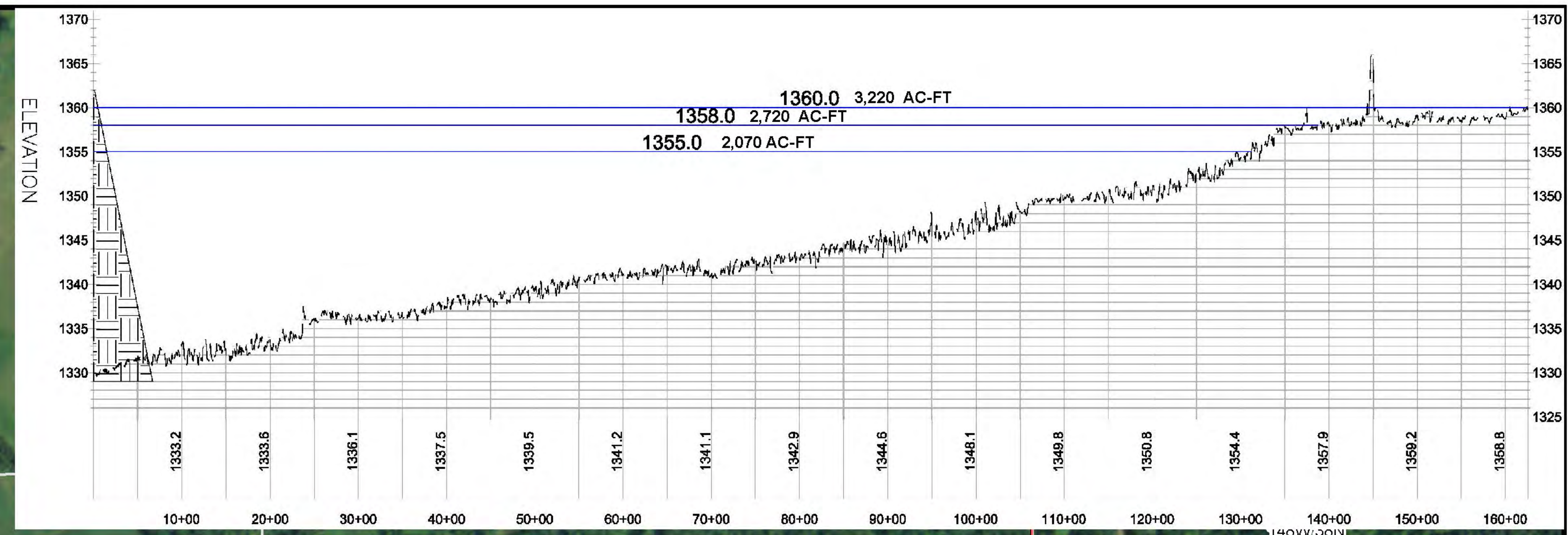
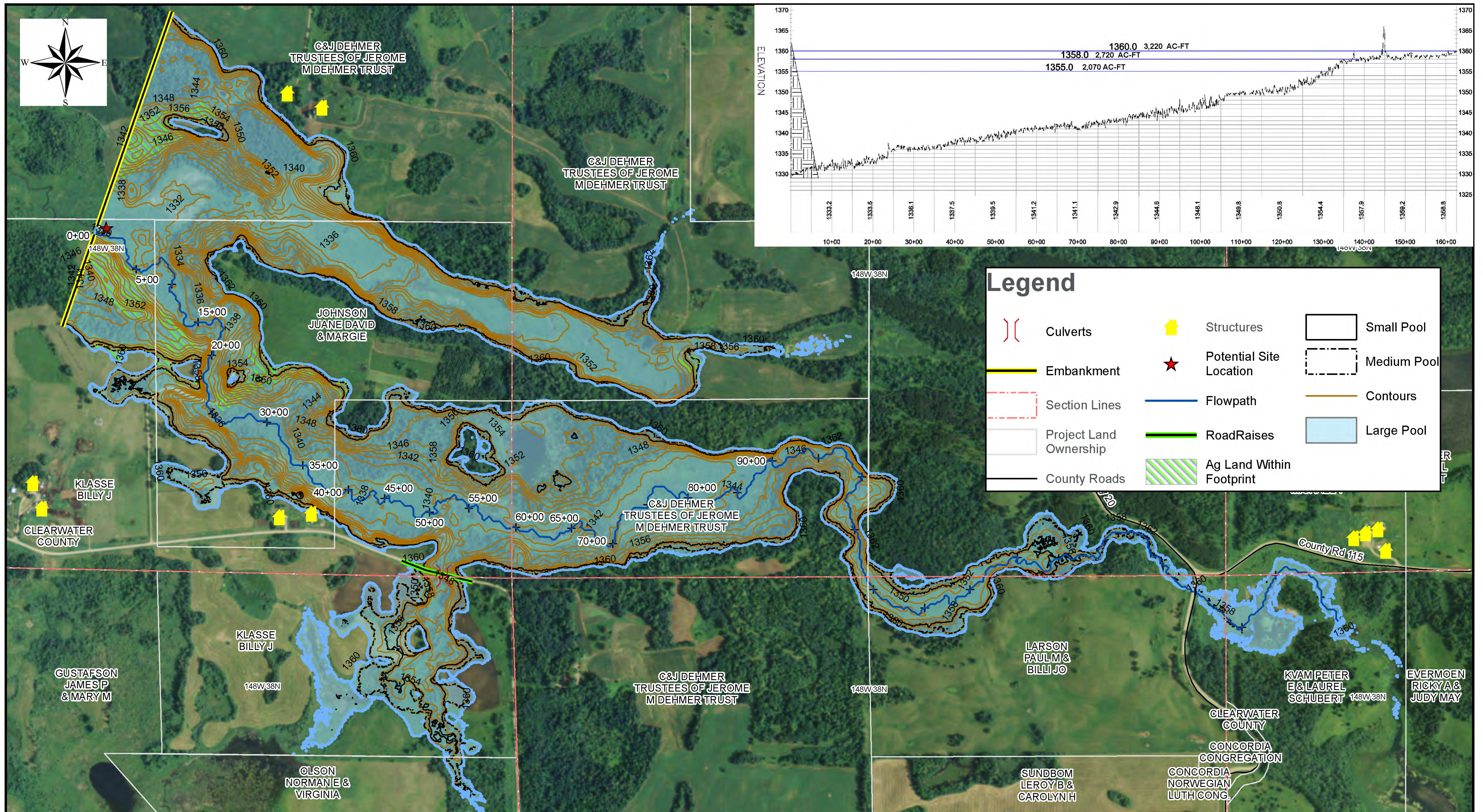
- Stop logs which can be adjusted periodically to adapt to changing seasonal or yearly conditions.
- A slide gate that can be operated with ease, allows draining of the lake to a lower level, and provides supplemental outlet capacity.

A new structure may:

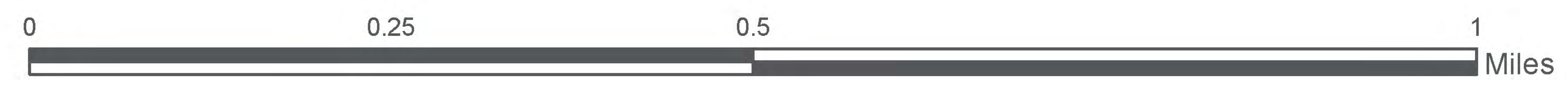
- Increase normal pool elevations
- Improve safety and convenience of making adjustments
- Allow adaptive lake management
- Improve lake habitat



Site D



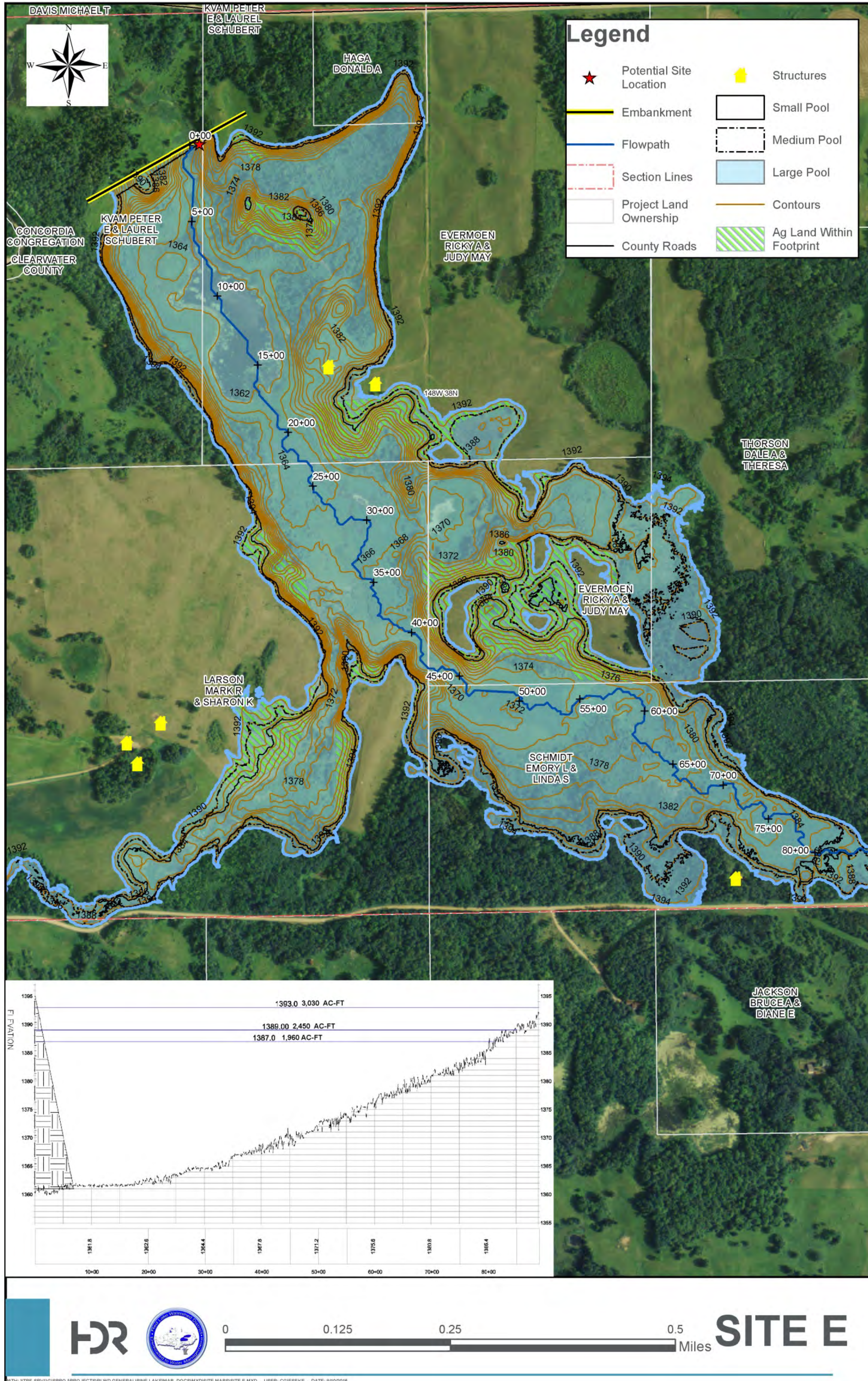
| Legend | | | | | |
|--------|------------------------|--|--------------------------|--|-------------|
| | Culverts | | Structures | | Small Pool |
| | Embankment | | Potential Site Location | | Medium Pool |
| | Section Lines | | Flowpath | | Contours |
| | Project Land Ownership | | Road Raises | | Large Pool |
| | County Roads | | Ag Land Within Footprint | | |



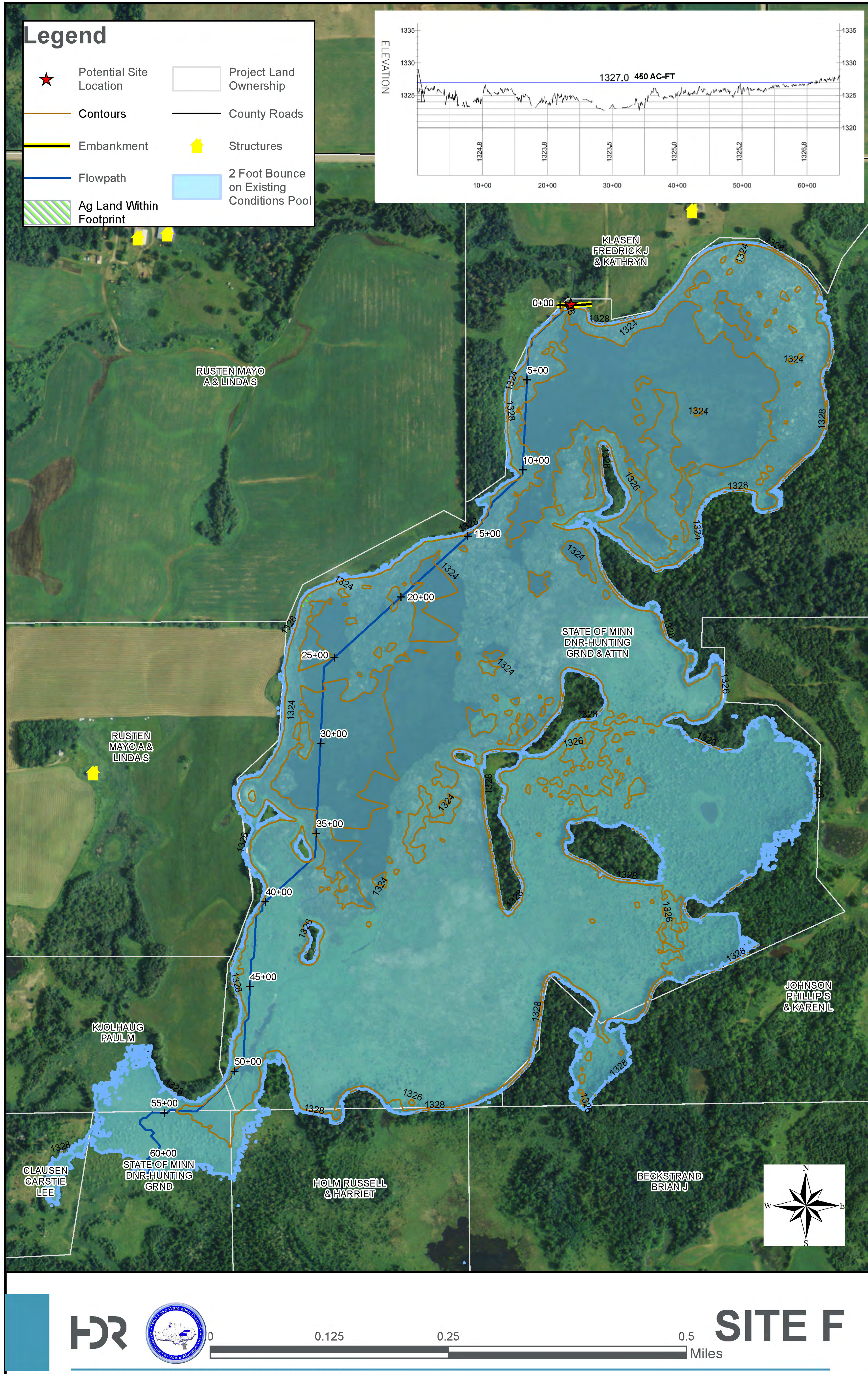
SITE D

PATH: \\TRF-SRV\GIS\PRO\PROJECTS\RLWD_GENERAL\UPNE_LAKE\MAP_DOCS\MSX\SITE_MAPS\SITE_D.MXD - USER: CGIESEKE - DATE: 8/10/2015

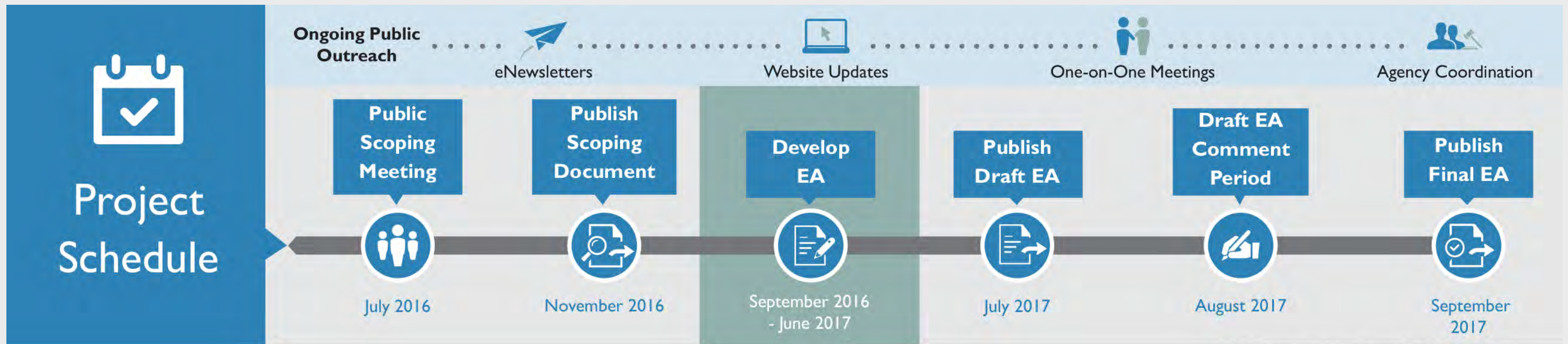
Site E



Site F



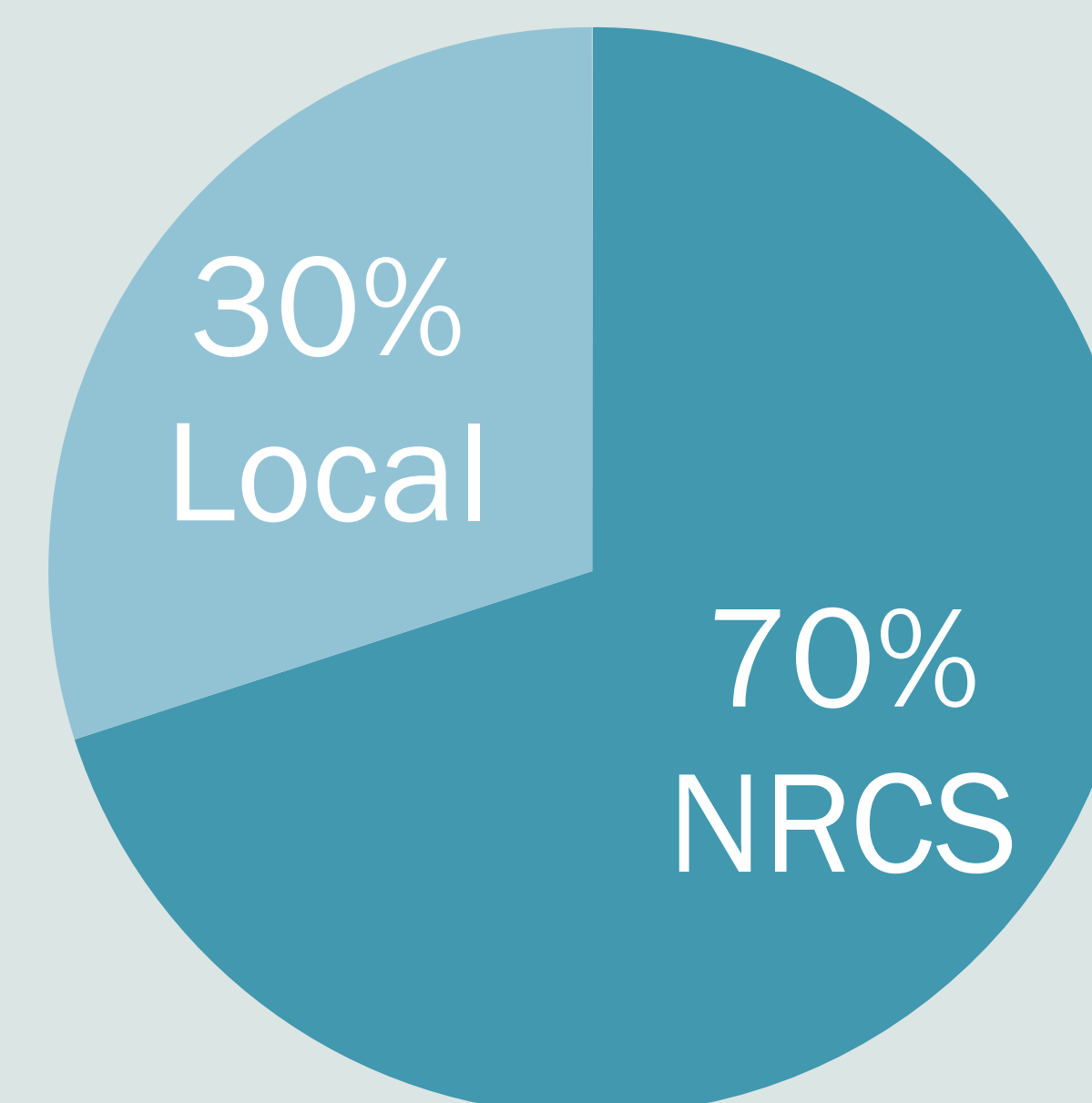
Schedule & Funding



**All dates are tentative and subject to change.*



Funding



Provide Your Input



<http://www.redlakewatershed.org/>



Fill out a Comment Form today!



Myron Jesme, District Administrator
Phone: 218.681.5800



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