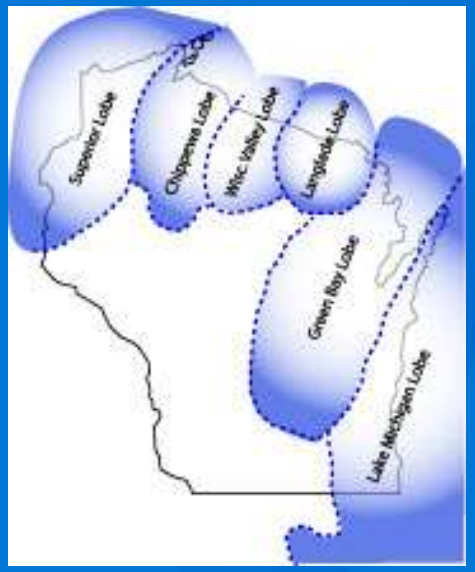
City of Superior

Special Area Management Plan

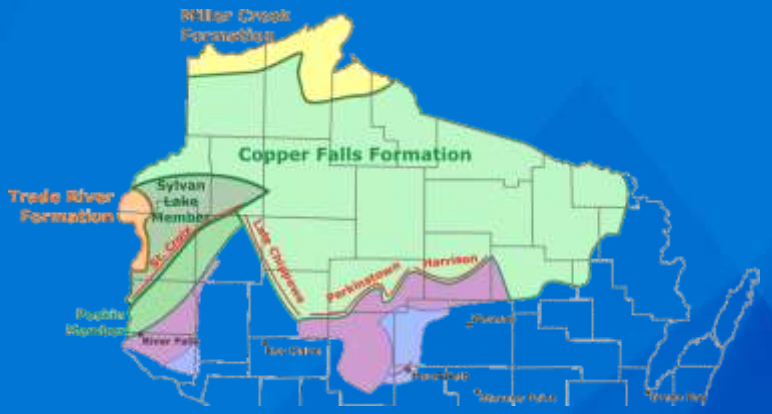
SAMP-II

Geology of the City of Superior

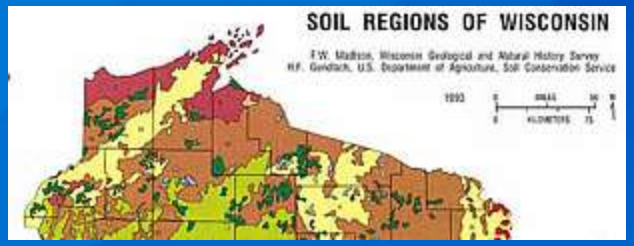
- Wetlands established in the northern Douglas County as a result of geological impacts from glaciation 10,000 years ago.
- The Superior Lobe of the Laurentian Sheet (Wisconsin Ice Age) left behind fine clays and flat lake bottom-like topography.



http://basineducation.uwex.edu/stcroix/images/Iceage/Lobes.jpg



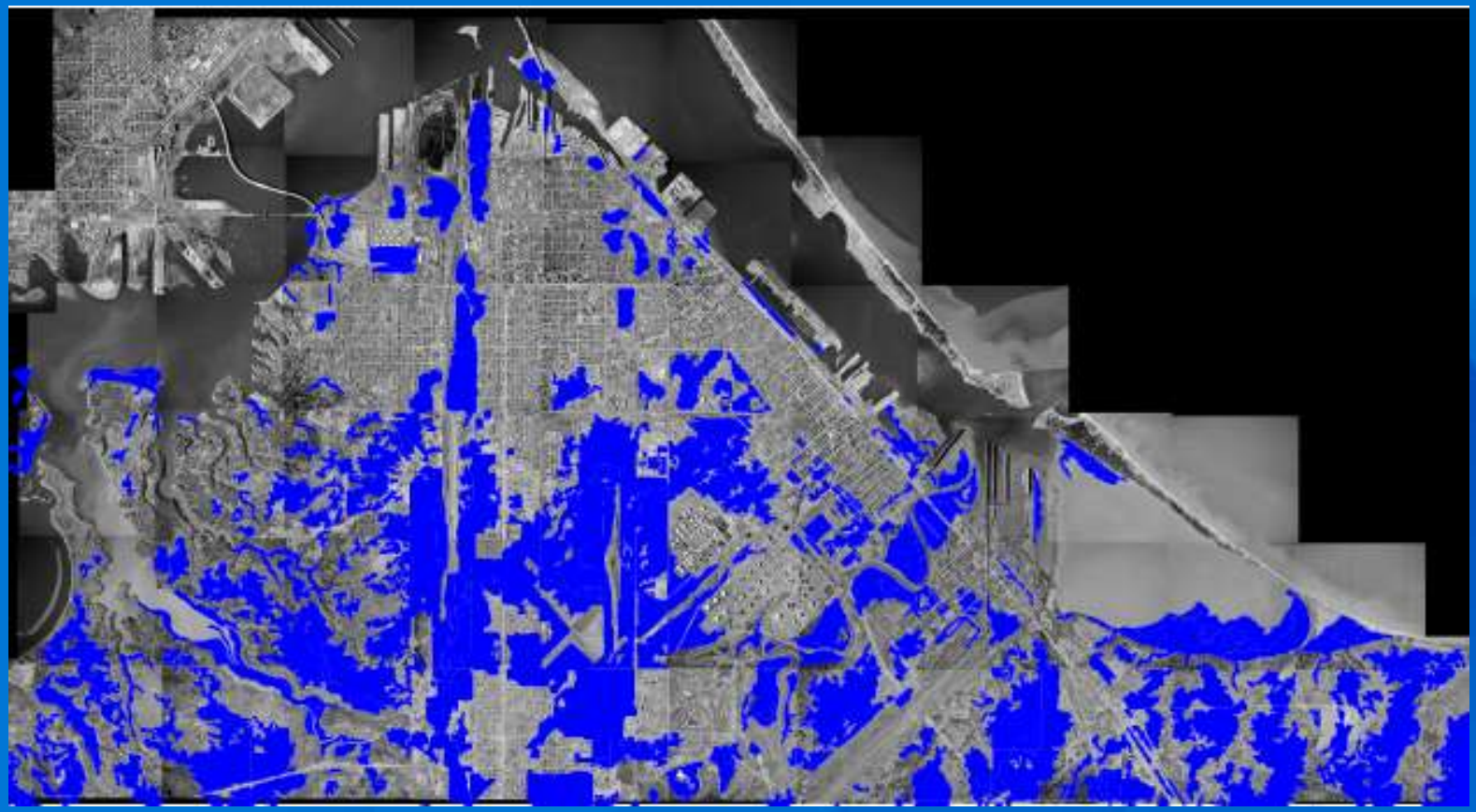
http://www.uwsp.edu/geo/faculty/lemke/geol370/images/13_lake_superior_deposits.gif



http://www.uwex.edu/wgnhs/soil.htm

Wetlands in the City of Superior

- Wetlands in the City of Superior formed as a result of flat topography and clay sediment deposits left from the advancement and recession of the Superior Lobe.



Wetland Functions

Wetlands provide many valuable social and ecological functions:

- Plant Habitat Integrity
- Wildlife Habitat Integrity
- Flood and Stormwater Attenuation
- Water Quality Integrity
- Hydrologic Integrity
- Recreational/Educational/Scientific/Cultural/ Aesthetics

Development in the City of Superior

- The City of Superior was founded in its location due to several reasons, including:
  - access to Lake Superior for shipping and port activities
  - flat topography to facilitate construction and operation of railroads
  - The port was sheltered from Lake Superior by Minnesota and Wisconsin Points

Development in the City of Superior

- Long term development in the City has contributed to impacts to the functional values of wetlands
- Passage of the Clean Water Act limits where and how development can further impact wetlands (1972)
- Many projects within the City require State and Federal Wetland and Water Regulatory permits
- Permitting can be very time consuming and costly and limit the attraction to building homes and businesses in the City.
- The City must manage growth and economic development in a manner that enhances the

community and its *natural resources*

What is a Special Area Management Plan (SAMP)?

- Began with the Coastal Zone Management Act
- Planning tool for communities to manage wetland resources
- Federal/State Agencies must consider local plans in permitting decisions
- Most are simply a planning tool
- Few incorporate permitting
  - Anchorage
  - Superior
  - San Diego County

Goals of the Superior SAMP II

- Predictability for landowners/developers.
- Reduction in permit processing time and increased efficiency.
- Objective criteria defining the eligibility of wetlands in the City for development.
- Plans for mitigating wetland losses.

SAMP I

- Crystal Ball Approach
- Planning began in 1994, Implementation from 1996-2007
- Limited to specific areas with high development pressure
- 143 acres deemed eligible for development
- 93.93 acres permitted in 10 years

SAMP II

- Comprehensive approach
- Assessed the functions of over 7000 acres of wetlands in the City
- 1,097 acres were deemed eligible (low-med quality) ~20%
- Only 140 acres may be permitted (< 2%)

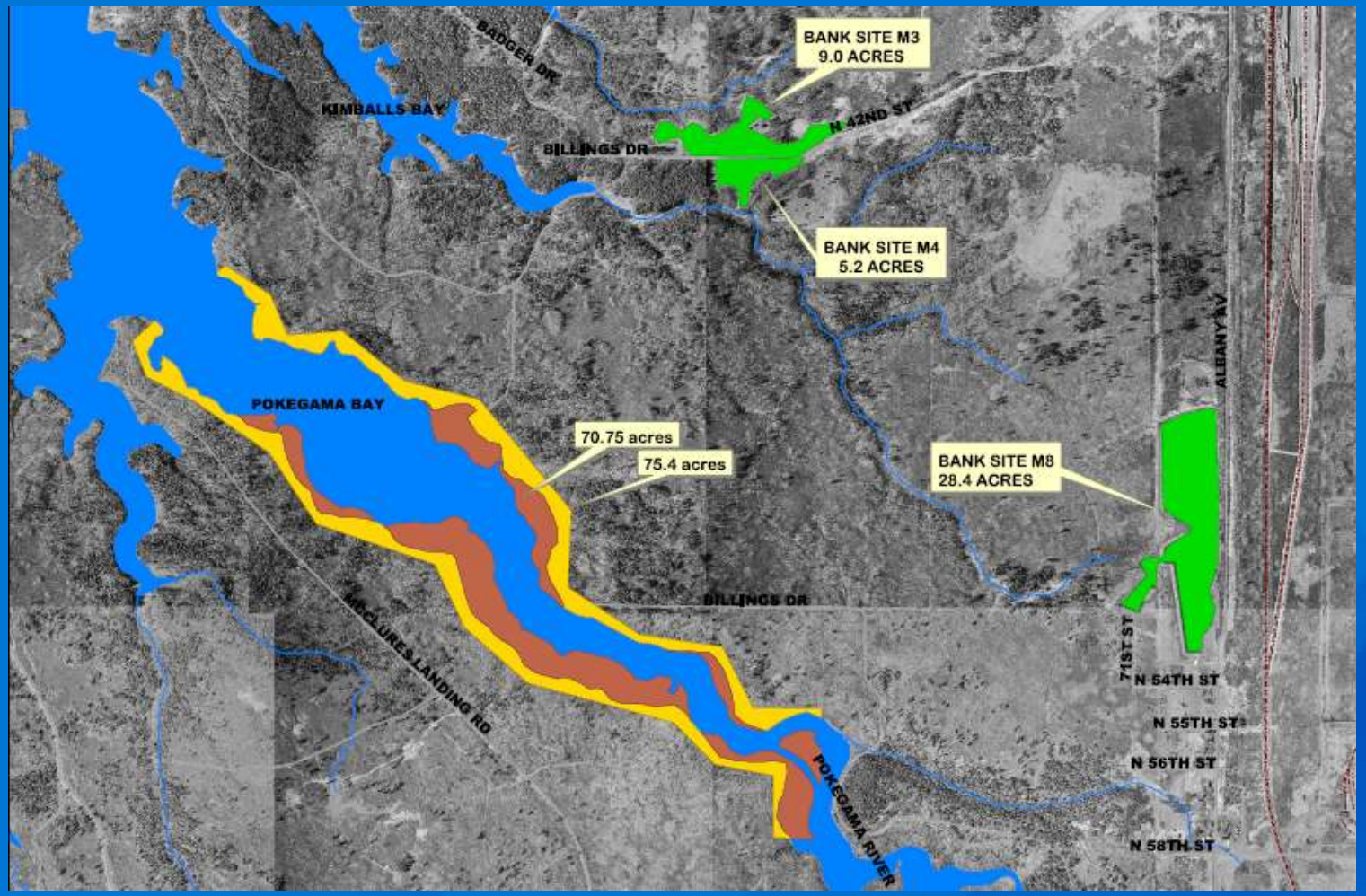
SAMP-II COE General Permits

- 4 General Permits
  - Residential 40 Acres
  - Industrial/Commercial 75 Acres
  - Institutional 10 Acres
  - Public 15 Acres
- COE & DNR must review all applications before issuance
- Wetland mitigation is required (no *de minimus*)

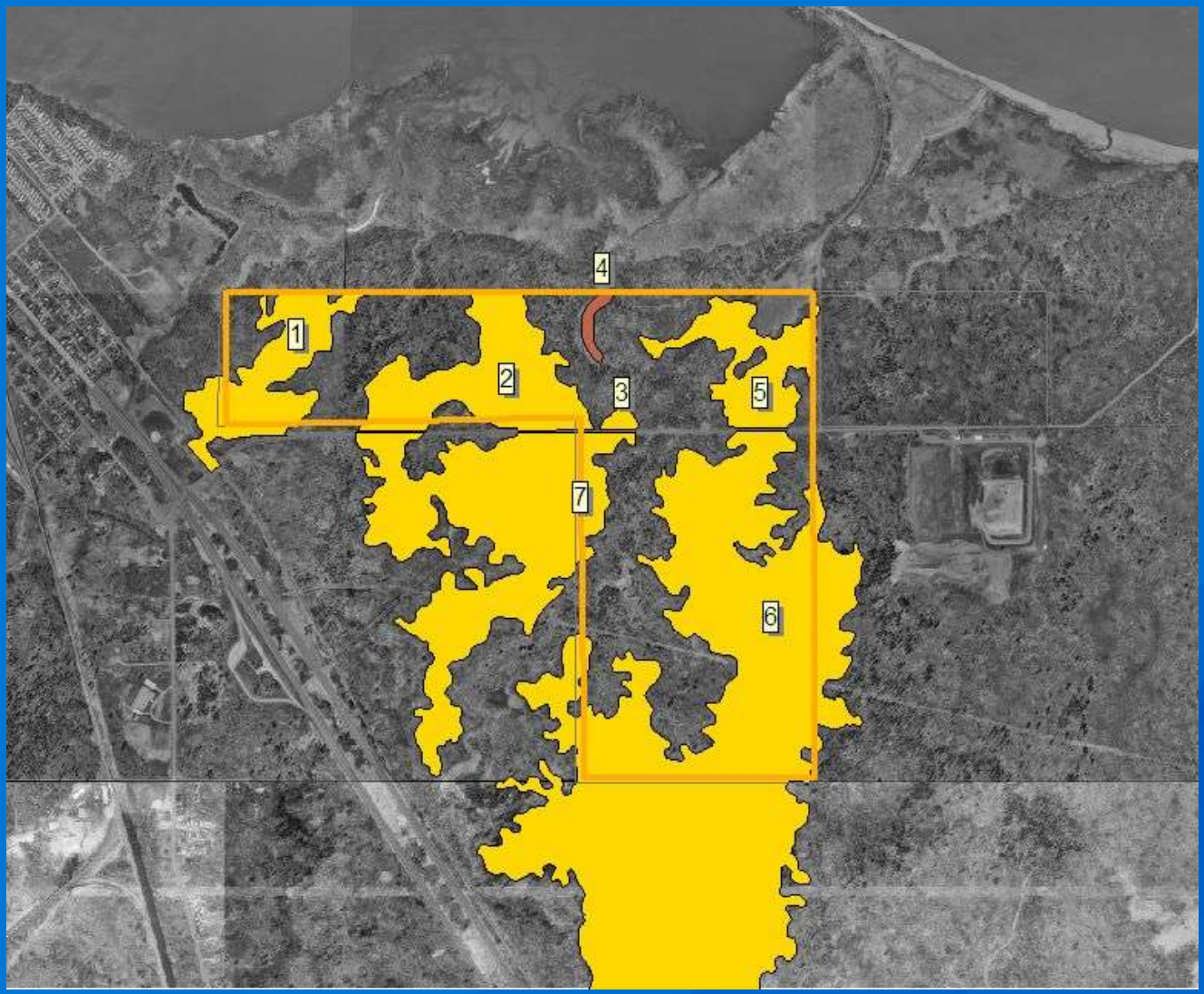
Compensatory Wetland Mitigation

- The City is committed to providing compensatory wetland mitigation meeting the high standards of the Wisconsin DNR Guidelines.
- SAMP I wetland mitigation projects included a wide variety of wetland creation, restoration, enhancement, and preservation projects.
  - 51.35 acres of wetland creation and enhancement in the Superior Municipal Forest
  - 75 acres of purple loosestrife control in Pokegama Bay plus 70 acres of upland buffer preservation
  - 445 acres of preservation in the Moccasin Mike area

SAMP I Mitigation Projects



SAMP I Mitigation Projects



Compensatory Wetland Mitigation

- City strives to continue implementing mitigation projects that will restore and enhance wetland and water resources in the Lake Superior Watershed
  - 126 acre wetland restoration and riparian enhancement project
  - Additional purple loosestrife control projects
  - Restoration and Enhancement of municipal and county wetlands and former wetland areas
- Mitigation standards are met based on the Guidelines for Compensatory Wetland Mitigation in Wisconsin (WDNR 2002).

Compensatory Wetland Mitigation

Conclusion

- The City's intention is to:
  - promote economic development
  - protect natural resource functions
  - protect of the health and interests of citizens, visitors, and businesses
- Questions?