Management of Small Docks and Piers

Visual Impacts


Small Dock Management
Not always about environmental issues…
• Aesthetic or scenic issues.
• “Waterfront Sprawl” or cumulative impacts.
• Simple reaction to change.

Visual Impact Analysis

- Valid, reproducible analytic techniques
- As valid as environmental impact analysis
- Tools are available for implementation
- Programs exist presently to serve as models

Legislative Bases for Visual Impact Management

Federal, State and Local Level

- Federal Coastal Zone Management Act
- State Environmental Impact Legislation
- State Public Trust Regulation
- Wetlands Protection Regulation
- Municipal Zoning

Legislative Bases for Visual Impact Management

Look for Language Referencing:

- Scenic Views
- Aesthetics
- Community Character
- Visual Impacts

Legislative Bases for Visual Impact Management

References may be found in:

- Statutory Language
- Regulations Supporting Legislation
- Legislative Findings Associated with Statute

Legislative Bases for Visual Impact Management

Legal Authorities Include:

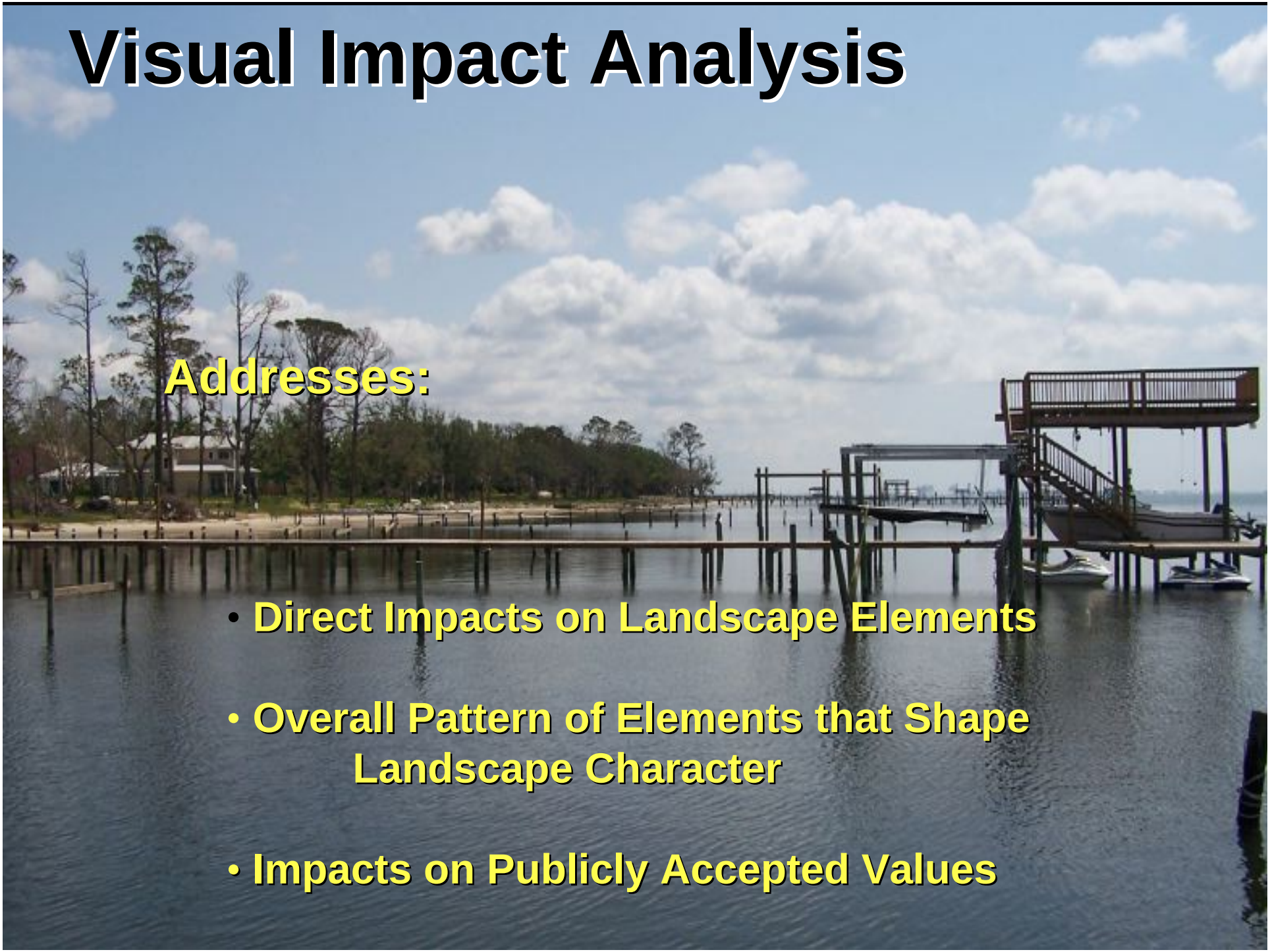
- **Police Powers**

  (Public Health, Welfare and Safety)

- **Rights of Ownership**

  (State or Municipal Public Property)

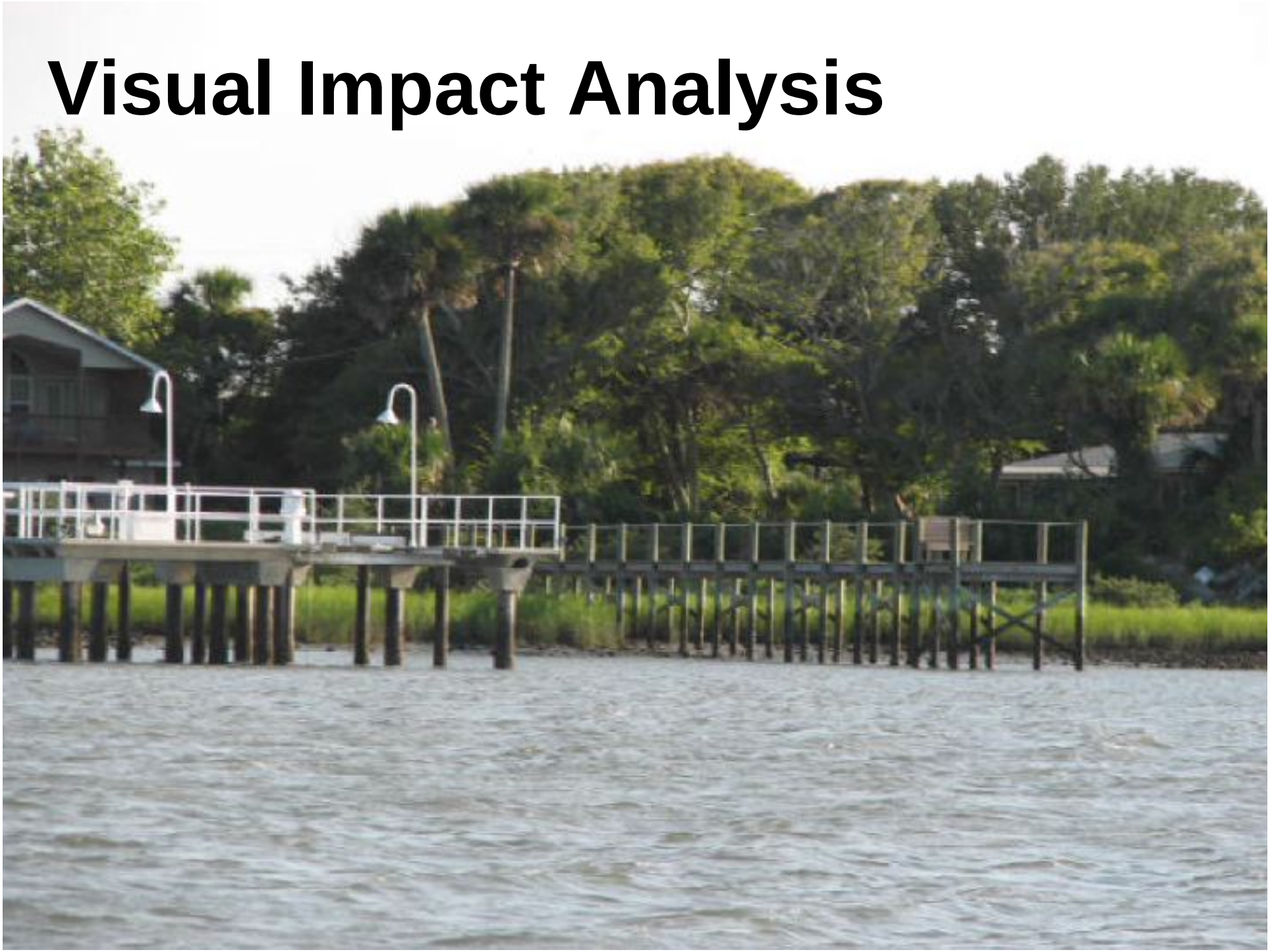
Visual Impact Analysis



Addresses:

- **Direct Impacts on Landscape Elements**
- **Overall Pattern of Elements that Shape Landscape Character**
- **Impacts on Publicly Accepted Values**

Visual Impact Analysis



Richard Smardon:

(State University of New York;Albany)

- **Landscape compatibility**
- **Scale Contrast**
- **Spatial Dominance**

Visual Impact Analysis

In Practice:

- **Compare existing and proposed views**
- **Include full build-out**
- **Provide sufficient number of views (6–7) to provide fair comparison**
- **Include views from relevant viewpoints**
- **Provide information to appropriate decision-makers**

Fairhaven, MA

Computer simulation of proposed dock using PhotoModeler®

Graphic courtesy Pepperchrome, Portland, ME

CanVis Software Guidance

Developed by: USDA Forest Service

USDA Natural Resources Conservation Service

Modified for Use with Docks by: NOAA

Coastal Services Center, Charleston, SC


Advanced Applications
Example 1

CanVis Software Guidance

What is it?

The CanVis image editing software is an entry-level program that allows resource professionals to create photo-realistic simulations with minimal computer skills.

Advantages

- Easy to learn
- Easy to use
- Fast
- Free

Limitations

- File size limit (600x800 pixels)
- Limited fine-tuning of objects and base images

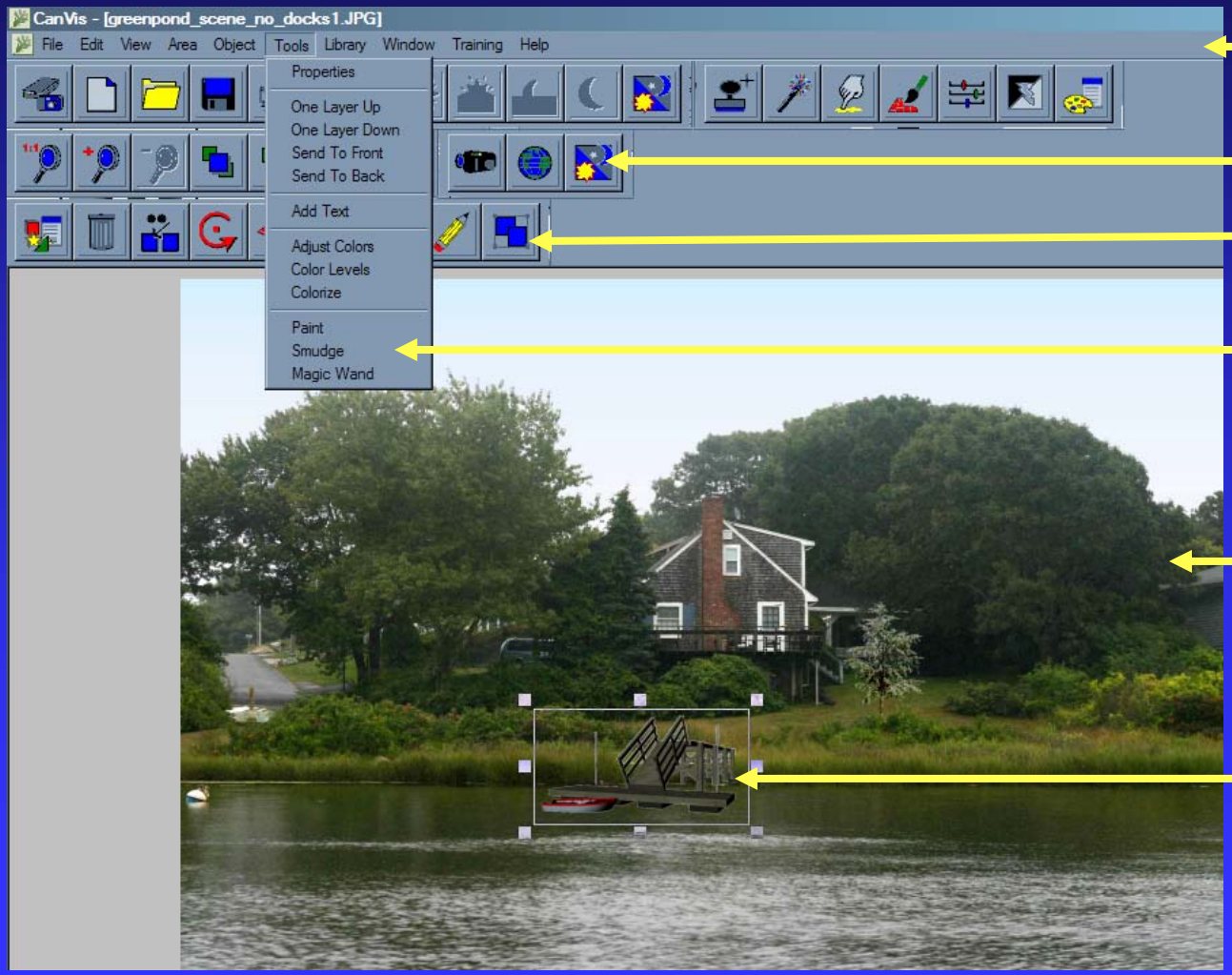
CanVis Software Guidance

Examples:

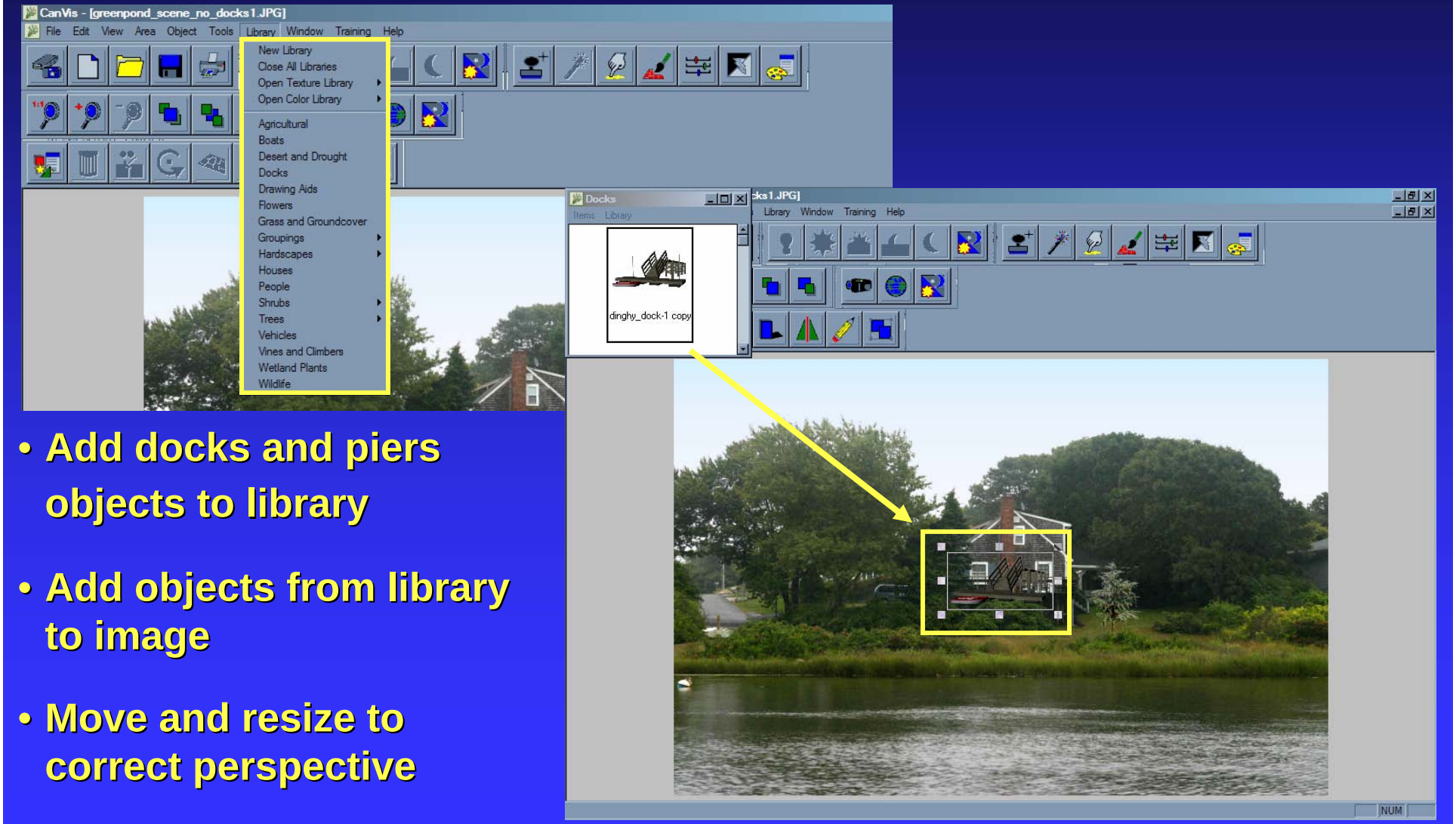
Before

After

CanVis Software Guidance



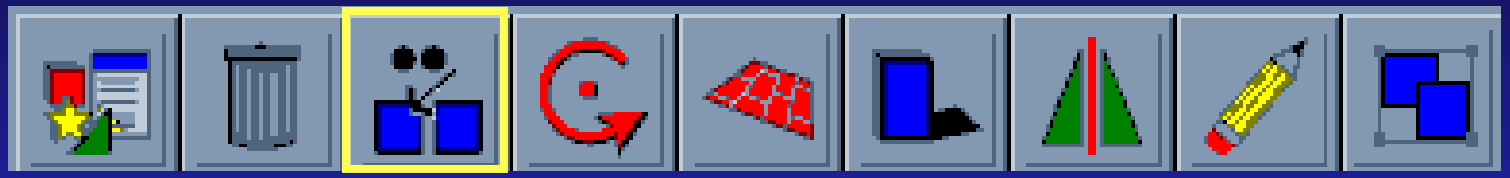
CanVis Software Guidance



- Add docks and piers objects to library
- Add objects from library to image
- Move and resize to correct perspective

CanVis Software Guidance

Object Manipulation:



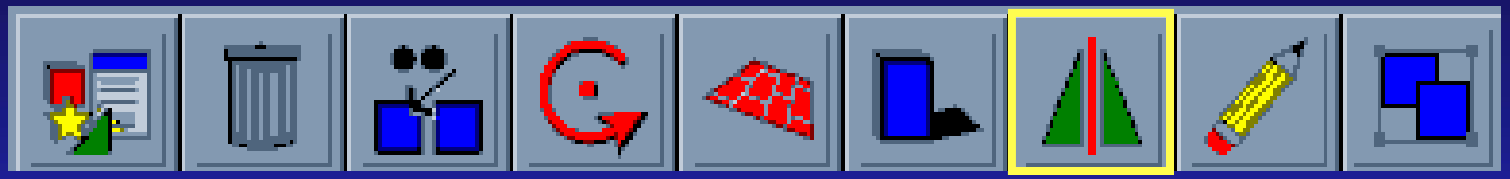
Duplicate

Rotate

Mirror/Flip

CanVis Software Guidance

Object Manipulation:



Duplicate

Rotate

Mirror/Flip

Software Options

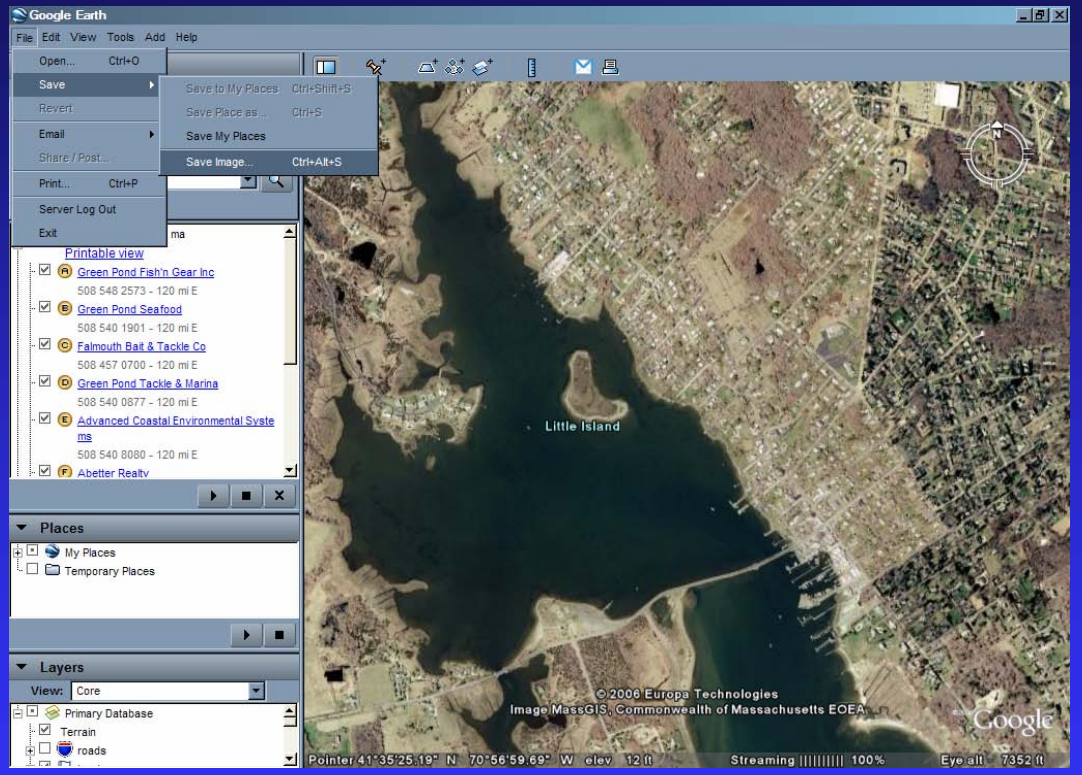
Characteristics:

Factors:	2D/3D	Cost	Expertise Required	Time Required	Maximum Size	Use
CanVis (level demonstrated)	2D	Free	None	Low	600x800	Brainstorming Evaluation
Adobe, Paintshop Pro, GIMP	2D	Low to Medium	Medium	Low to Medium	Limited Only by Input	Any 2D Application
Community Viz, Sketch Up, Visual Nature Studio, Maya	2D/3D	Low to Very High	High to Very High	High	Limited Only by Input	Any 2D or 3D Application
ArcGIS (ArcScene) Requires Spatial Analyst	2D/3D	High to Very High	High to Very High	High	Limited Only by Input	Any 2D or 3D Application

Using Google Earth Imagery

Things to Consider:

- Amount of area to include
- Viewing angle and perspective
- Inclusion of obvious landmarks
- Inclusion of highways and major cities



/earth.google.com/

Additional Resources and Web Sites

Resources:

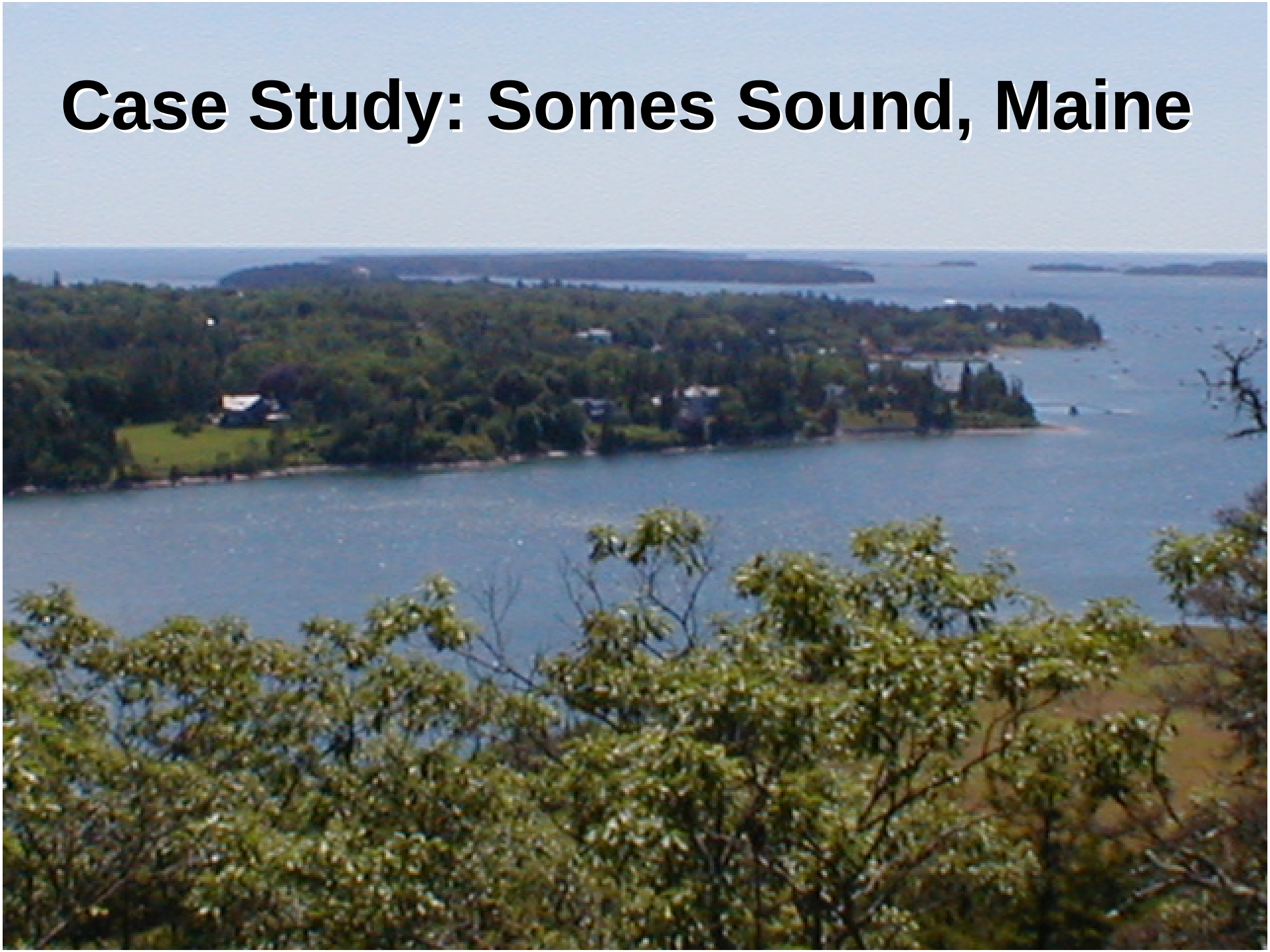
- CanVis
  www.unl.edu/nac/simulation/

- InfranView – Image Resizing Software
  www.irfanview.com/

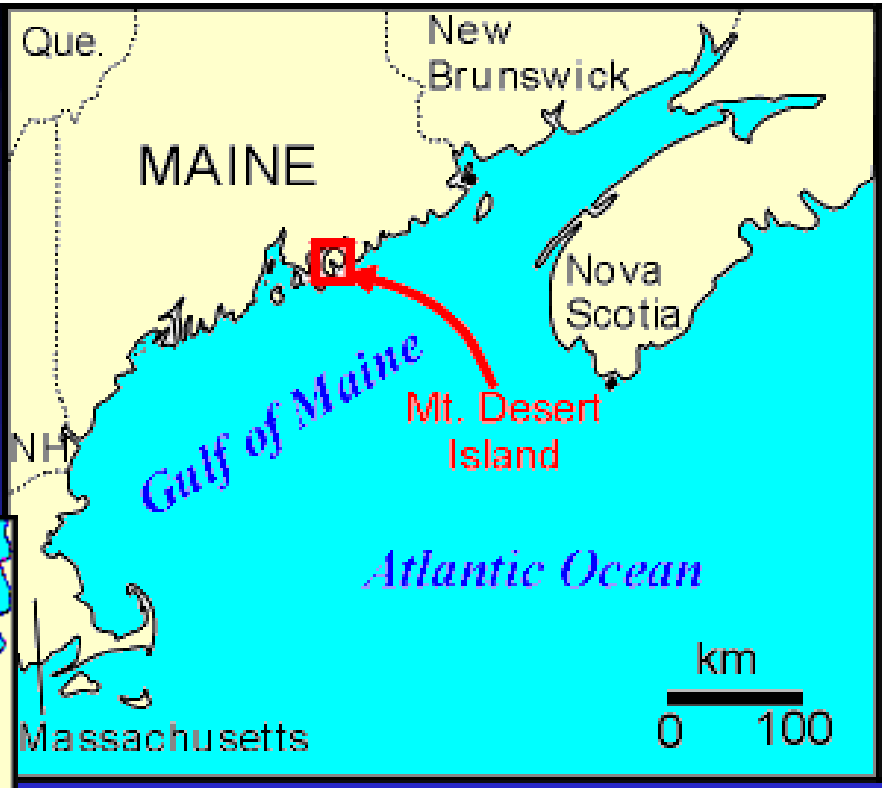
- Docks and Piers Objects
  www.csc.noaa.gov/visualizations/

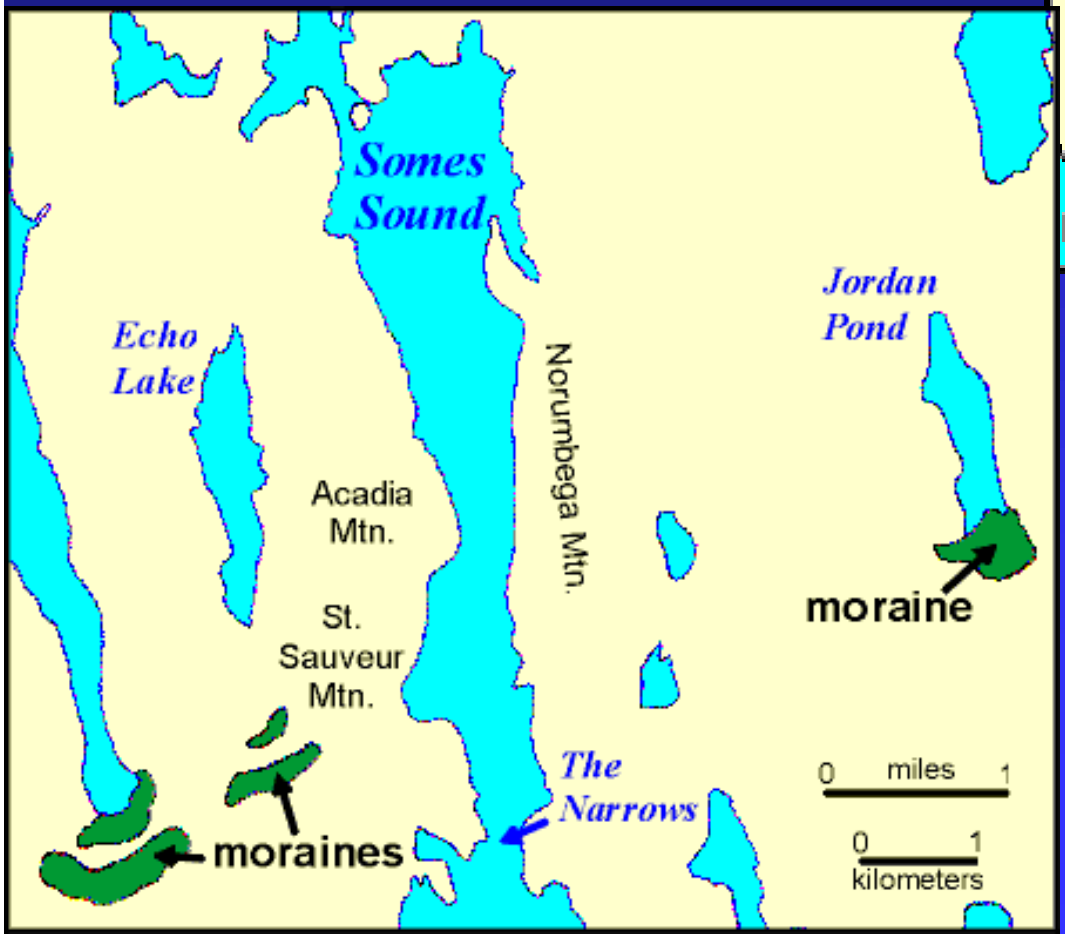
Docks	Buoys
Boats	Vegetation and Rocks
Houses	Google Docks

Case Study: Somes Sound, Maine



Somes Sound, Maine





Maine Natural Resources Protection Act
(38 M.R.S.A. §§ 480–A–Z).

Maine DEP reviews projects for impacts to

- Water quality,
- Wetland and habitat considerations,
- Erosion, and
- Existing uses such as
  - navigation
  - Scenic and aesthetic qualities.

Maine DEP Evaluates:

Landscape compatibility

(severe, moderate, minimal none)

- Color
- Form
- Line
- Texture

Maine DEP Evaluates:

Scale Contrast

- Severe: major scale introduction/intrusion
- Moderate: one of several major objects in confined setting
- Minimal: significant object or scale
- None: small object or scale

Maine DEP Evaluates:

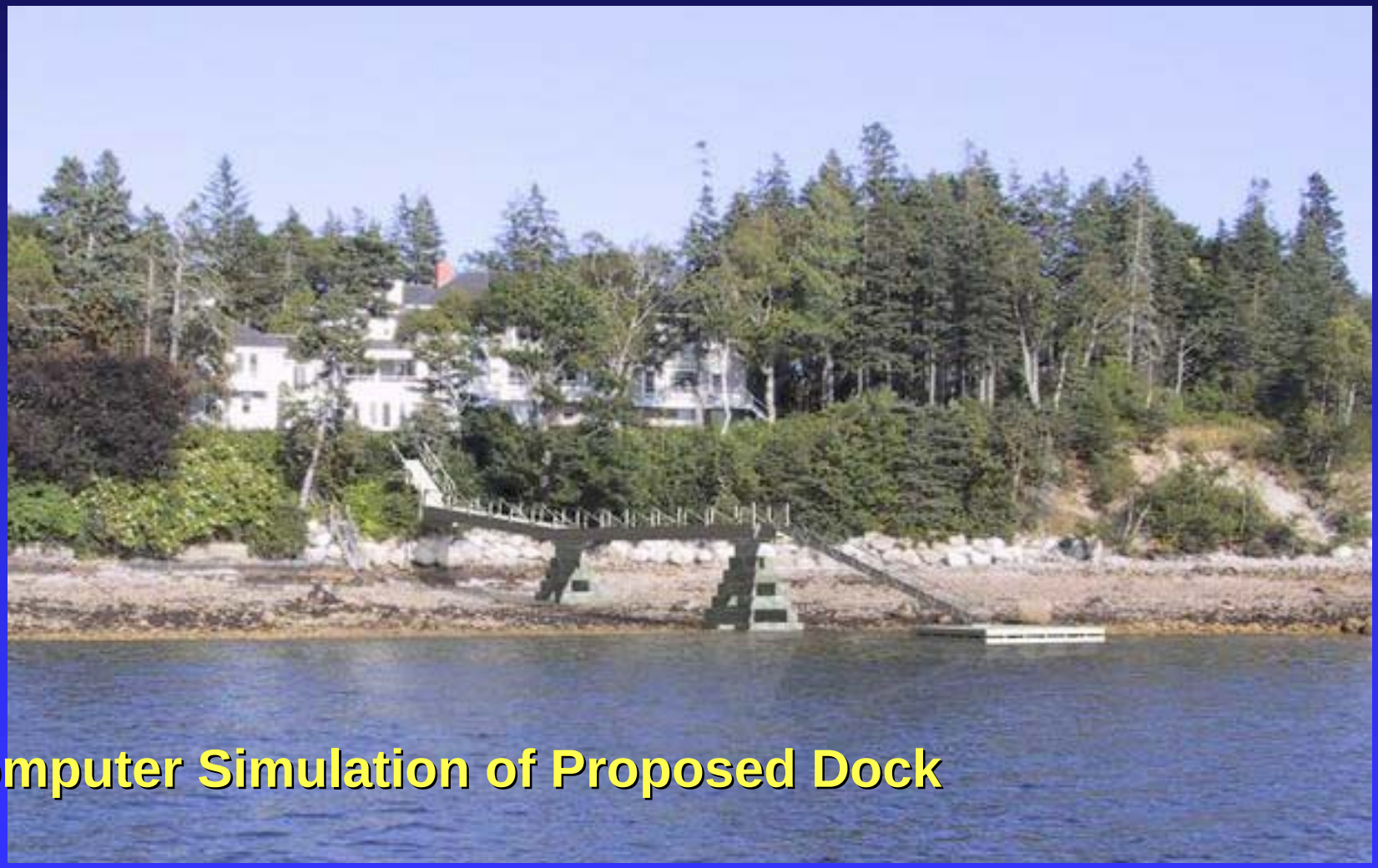
Spatial Dominance

- Does the proposed structure dominate the whole landscape composition?
- Is the proposed structure prominently situated in the landscape?
- Does the proposed structure dominate the water or sky backdrop?

Somes Sound, Maine

Existing setting

Somes Sound, Maine



Computer Simulation of Proposed Dock

Graphic courtesy of Pepperchrome, used with permission

Somes Sound, Maine

Judicial Findings:

- "An administrative decision will be sustained if, on the basis of the entire record before it, the agency could have fairly and reasonably found the facts as it did"

Somes Sound, Maine

Judicial Findings:

- "The court should not attempt to second-guess the agency on matters within its realm of expertise"

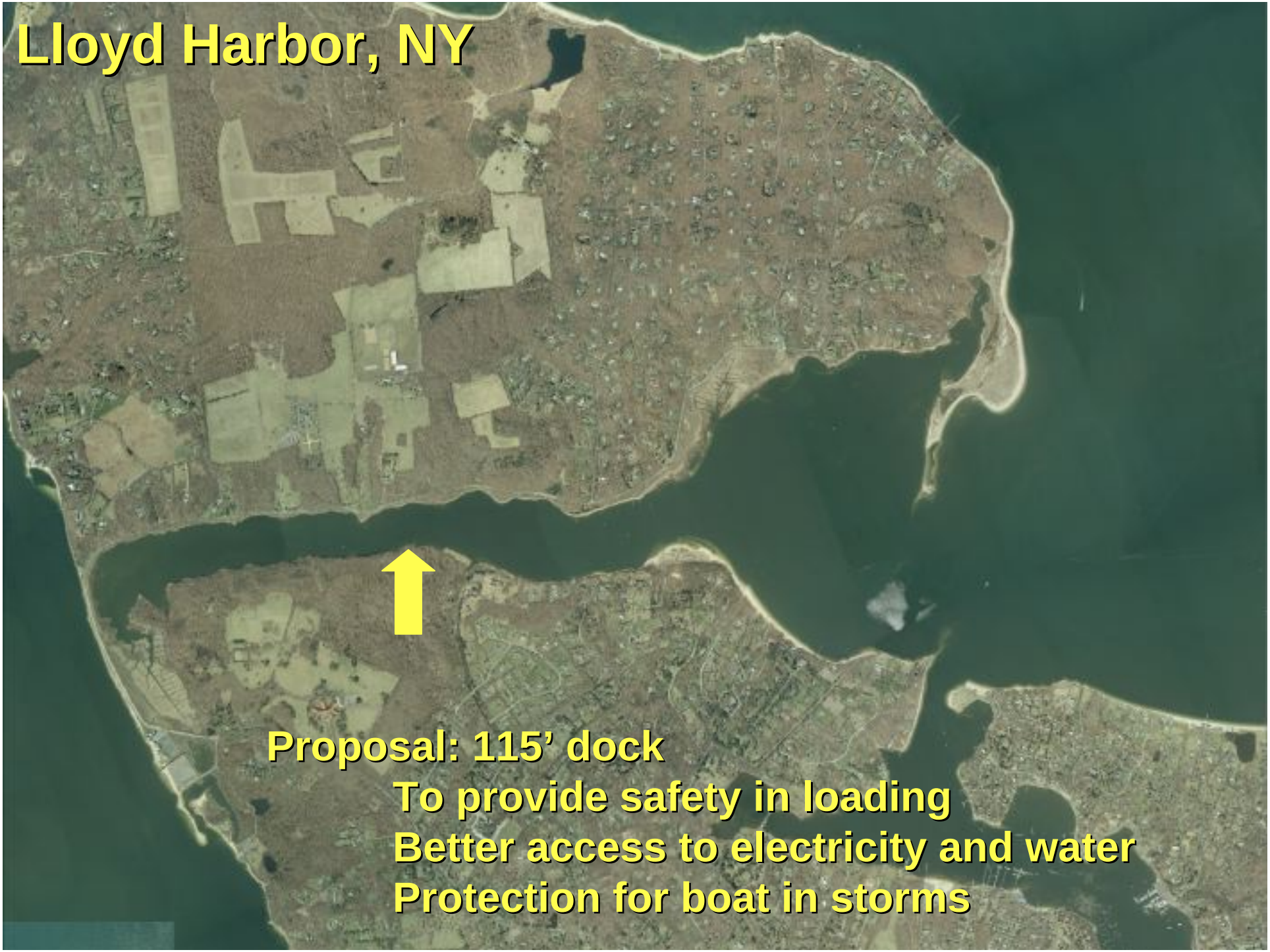
Case Study: Lloyd Harbor, NY

Lloyd Harbor, NY

Lloyd Harbor, NY

Zoning Overlay District

- Designed to protect community character and aesthetics of harbor area
- Limit dock lengths to 75 feet


Lloyd Harbor, NY
Proposal: 115’ dock
To provide safety in loading
Better access to electricity and water
Protection for boat in storms

Lloyd Harbor, NY

Judicial Findings:

- Appeal denied
- Riparian access may be limited; does not mandate dock
- Coastal overlay zoning district valid
- Not arbitrary and capricious

Lloyd Harbor, NY

Judicial Findings:

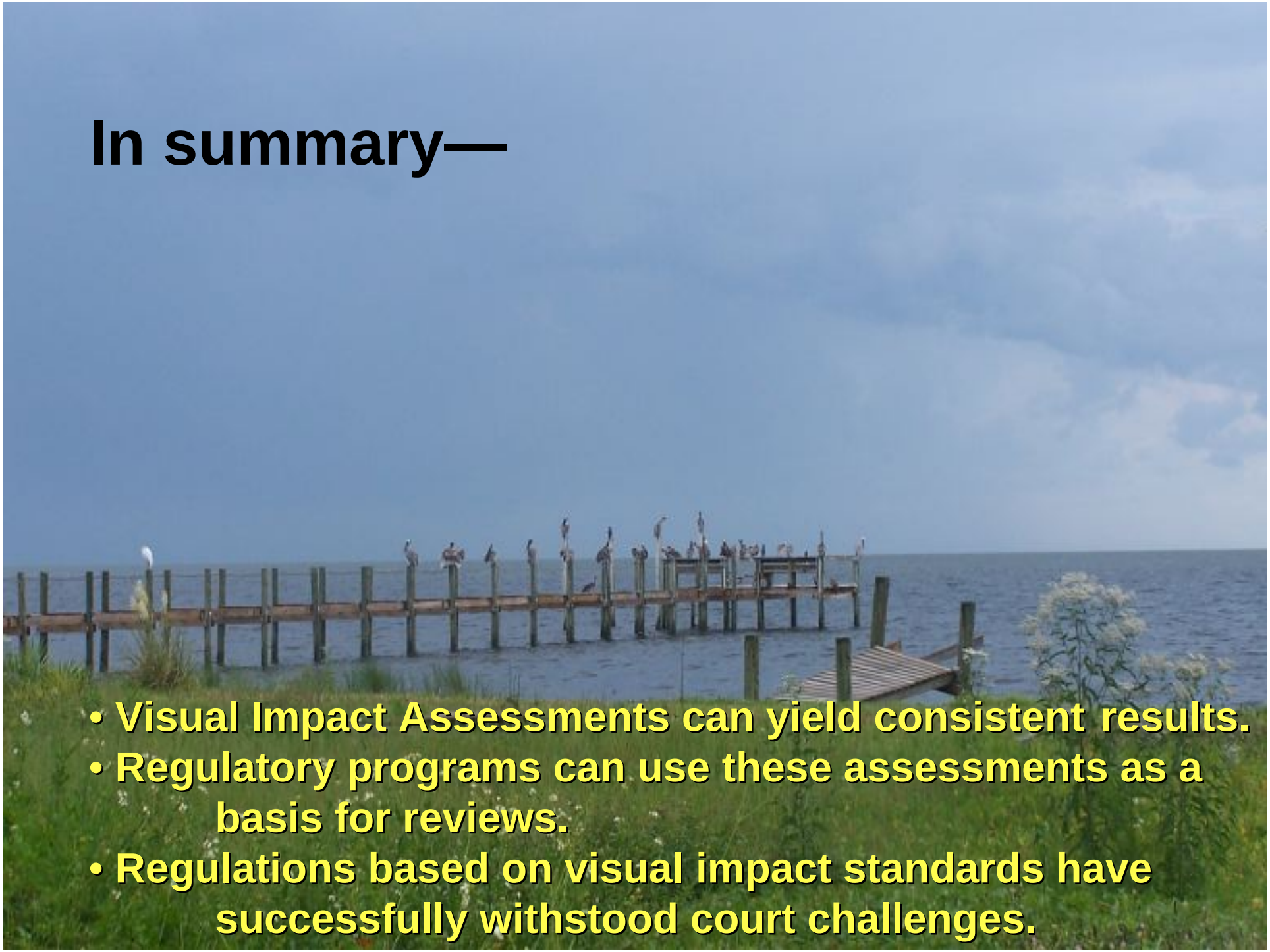
- "Generally a municipal zoning ordinance is presumed to be valid and will not be held unconstitutional if its wisdom is at least fairly debatable and it bears a rational relationship to a permissible state objective."

Lloyd Harbor, NY

Judicial Findings:

- "Aesthetics serve as another rational basis for the decision by the Village to limit length … so as to limit human intrusion in this special natural and relatively undeveloped wildlife area."

In summary—



- Visual Impact Assessments can yield consistent results.
- Regulatory programs can use these assessments as a basis for reviews.
- Regulations based on visual impact standards have successfully withstood court challenges.