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One Team: Relevant, Ready, Responsive, Reliable

East Branch Dam Safety Initiative



East Branch Dam Public Meeting

North Central Pennsylvania Regional Planning & Development Commission
Ridgway, Pa.

March 24, 2008



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Speakers

- ◆ Colonel Mike Crall, District Engineer
- ◆ Brian Greene, Interim Project Manager
- ◆ Jim Sekela, Dam Safety Engineer
- ◆ Jeff Hawk, Public Affairs Officer



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Why We Are Here

- ◆ Public Safety is Number One Priority
- ◆ New Risk-Informed Methodology to Prioritize Corps Dams Nationwide
 - Risk = Likelihood of Failure along with Consequences of a Potential Failure
 - Life Loss, Environmental, Economic
- ◆ Confirmed and Unconfirmed Concerns
- ◆ Public Involvement Encouraged



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Elk County, Pennsylvania
Allegheny River Basin
East Branch, Clarion River

Purposes:

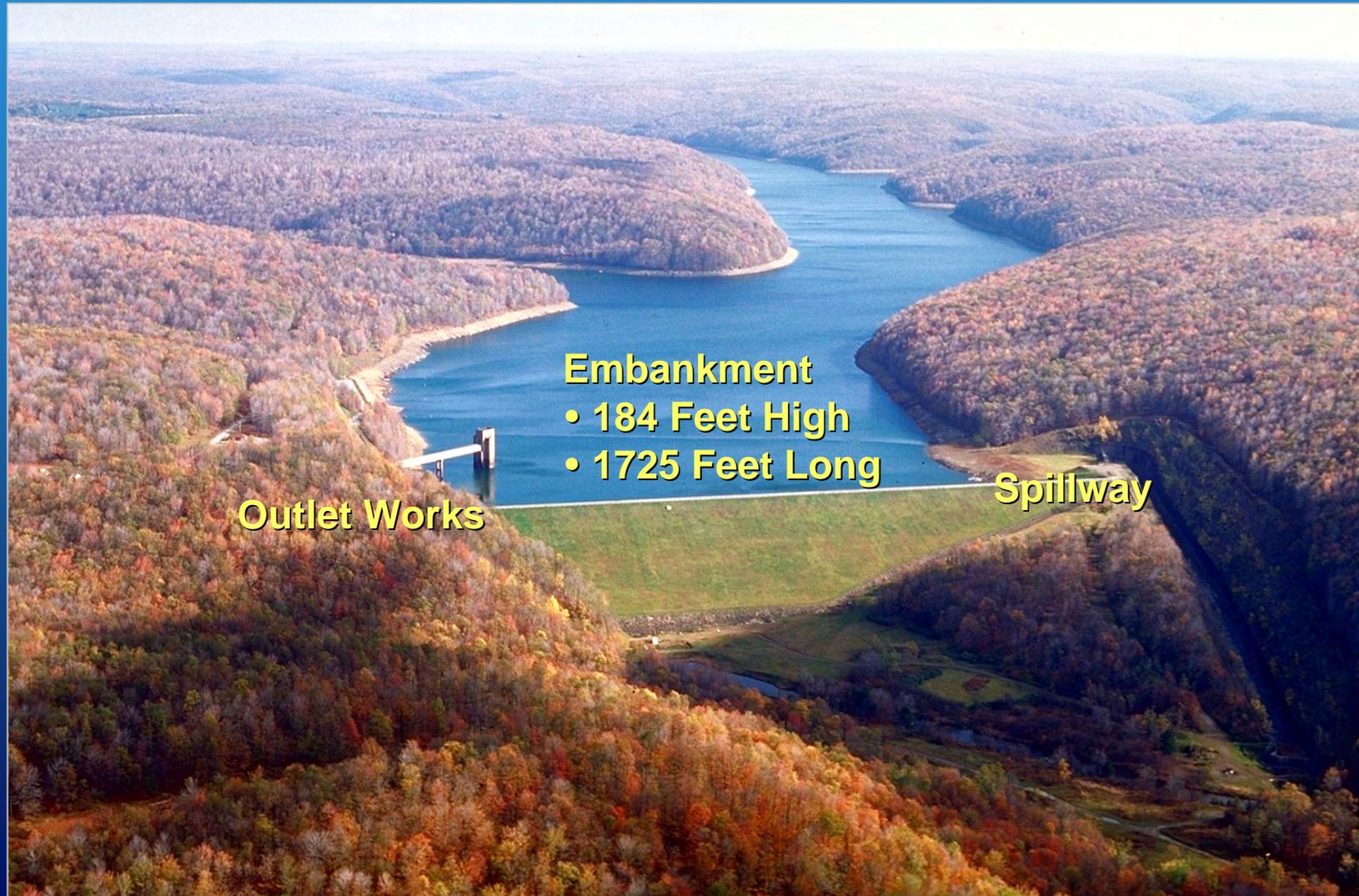
- ◆ Flood Control
- ◆ Low Flow Regulation
- ◆ Recreation
- ◆ Fish & Wildlife Conservation



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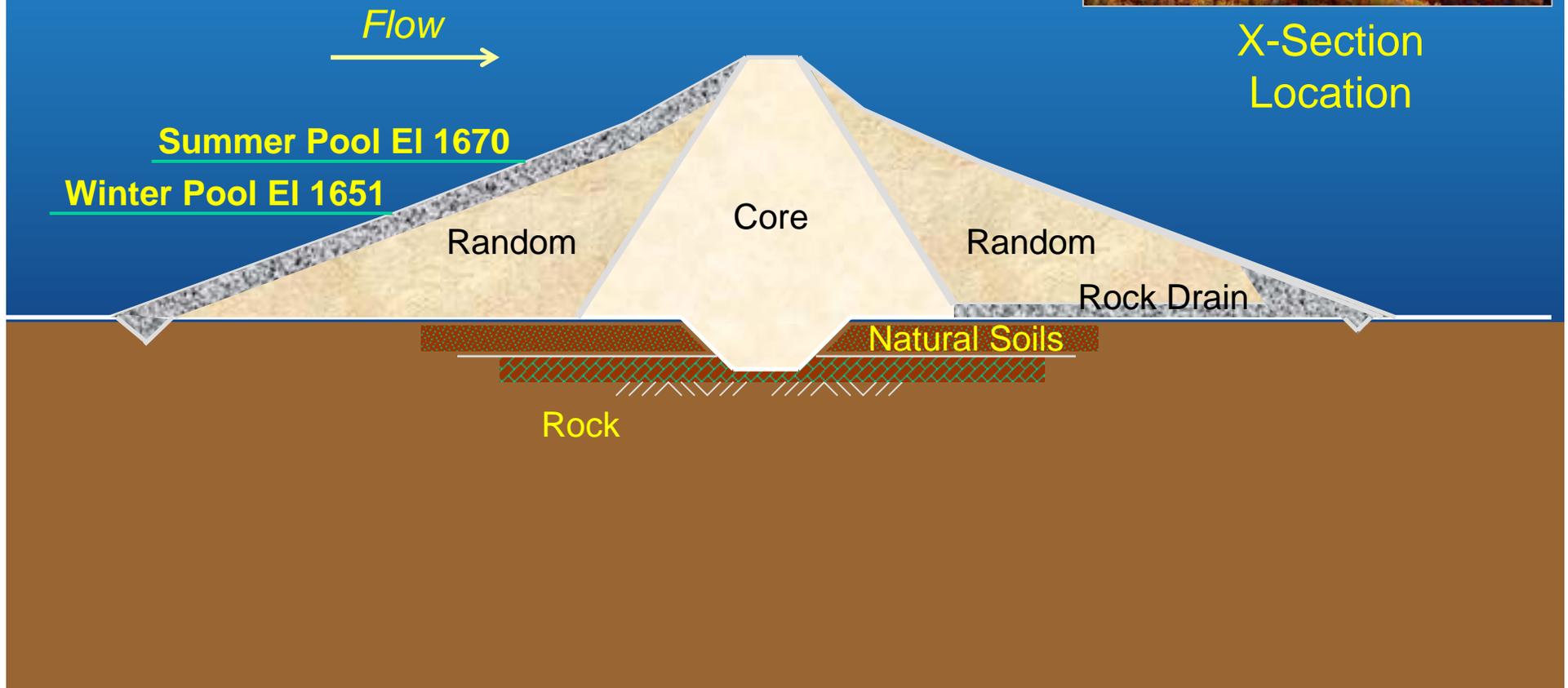
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East Branch Dam



Embankment Cross Section

X-Section
Location





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May 1957 Seepage Incident

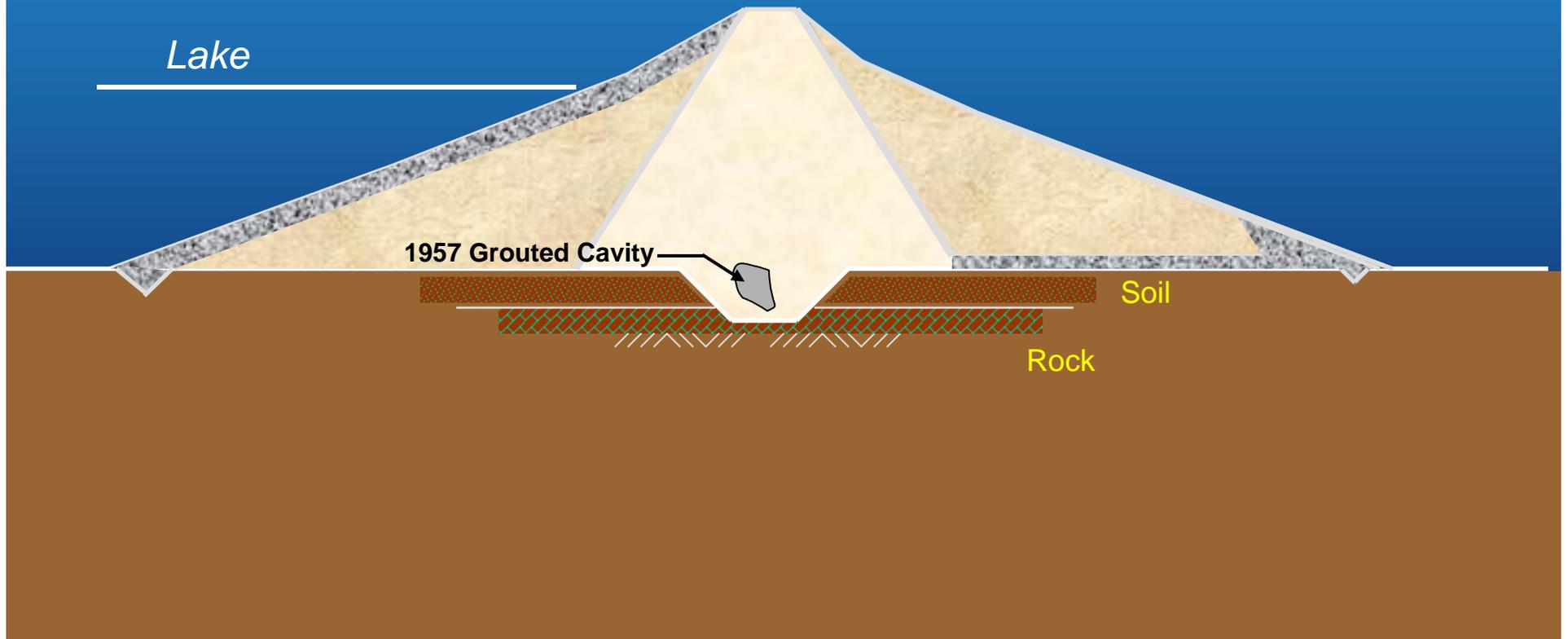


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Embankment Cross Section





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Dam Safety Measures

- ◆ Instrumentation
- ◆ Staffed 7 Days-a-Week
- ◆ Inspection and Monitoring
- ◆ Annual Dam Safety Training
- ◆ Emergency Action Plan



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Dam Safety Concerns

◆ Confirmed

- 1957 Muddy Seepage Incident
- Continuing Clear Seepage
- Design and Construction Standards



◆ Unconfirmed

- Condition of the 1957 Repair
- Soil Conditions at Core of Dam





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What Has Changed

- ◆ Risk Management Approach
 - East Branch Dam Screened – “Potentially Unsafe” due to Unconfirmed Concerns
 - Detailed Risk Analysis
 - Interim Risk Reduction Measures



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We Are Doing More to Reduce Risk

◆ Interim Risk Reduction Measures

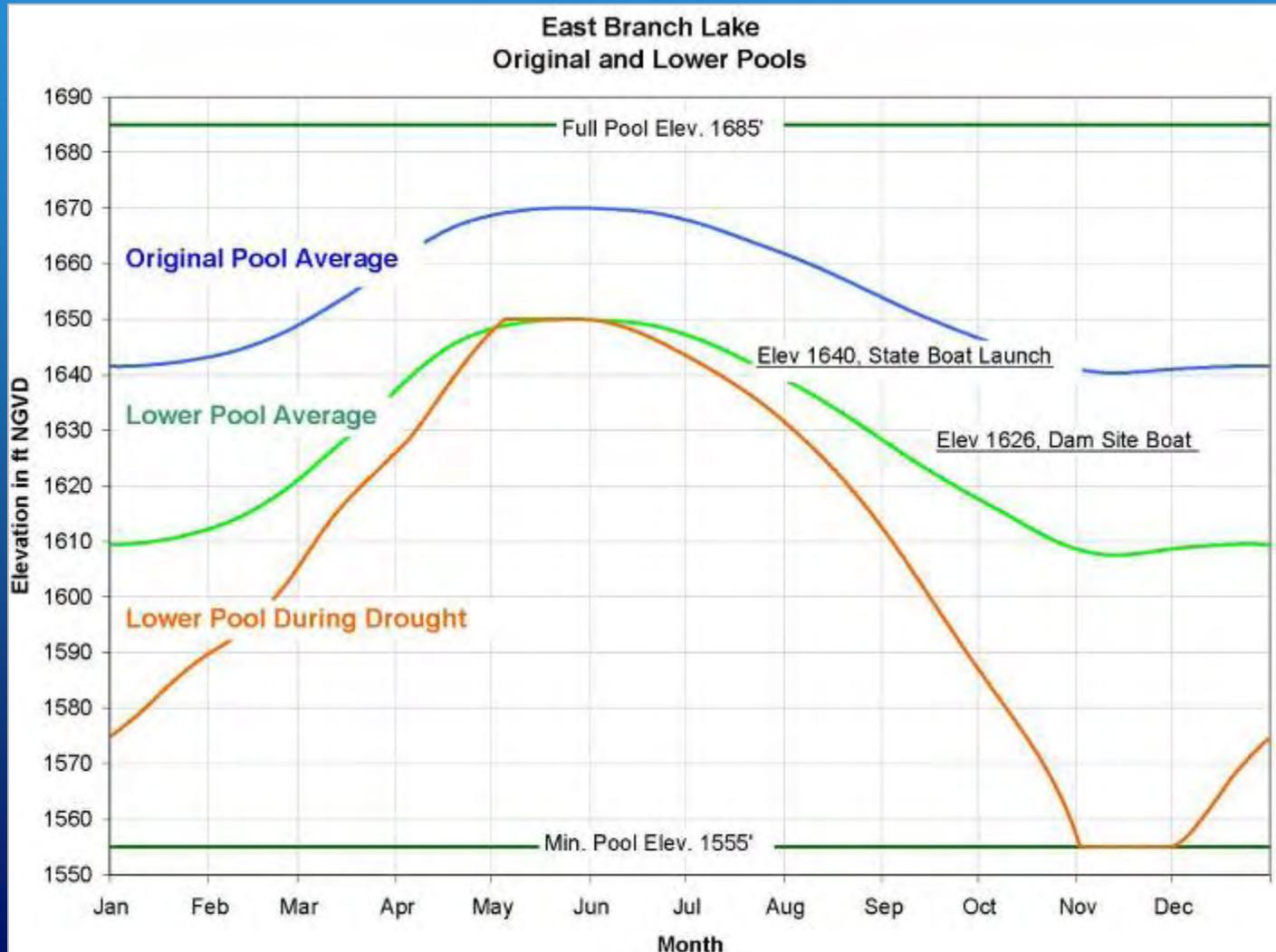
- Enhanced Instrumentation
- Enhanced Monitoring
- 24-Hour Staffing
- Update Emergency Action Plan
- Update Inundation Mapping
- Emergency Drills and Exercises
- Pre-Position Contracts and Materials
- Improve Outlet Gate Reliability
- **Implement Lower Pool**



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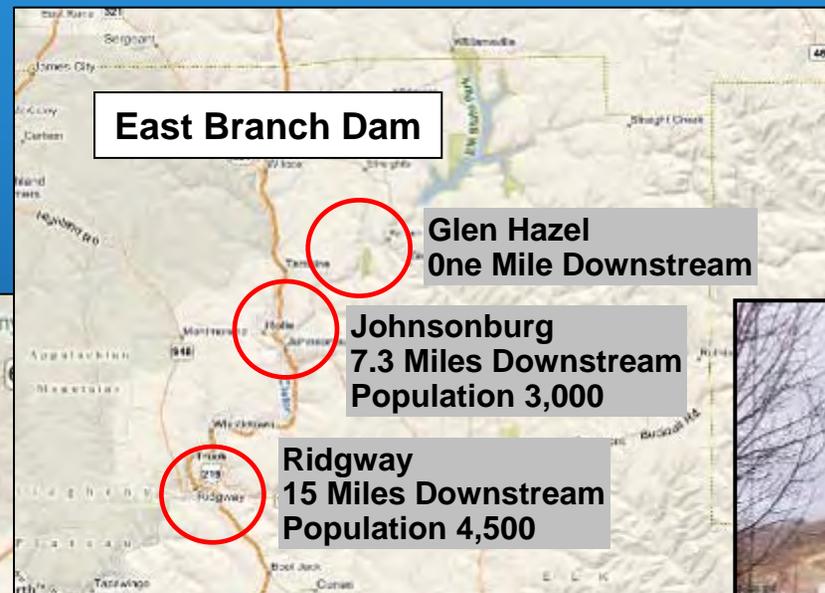


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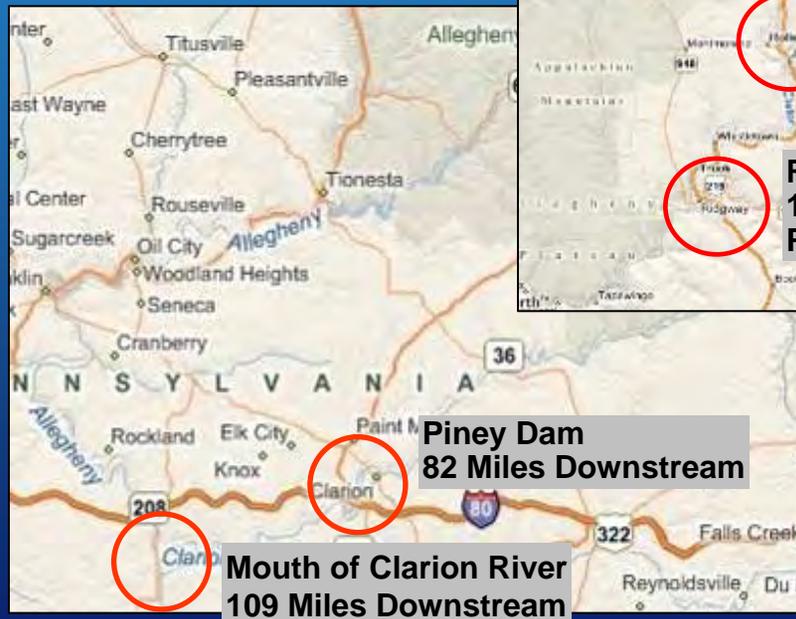
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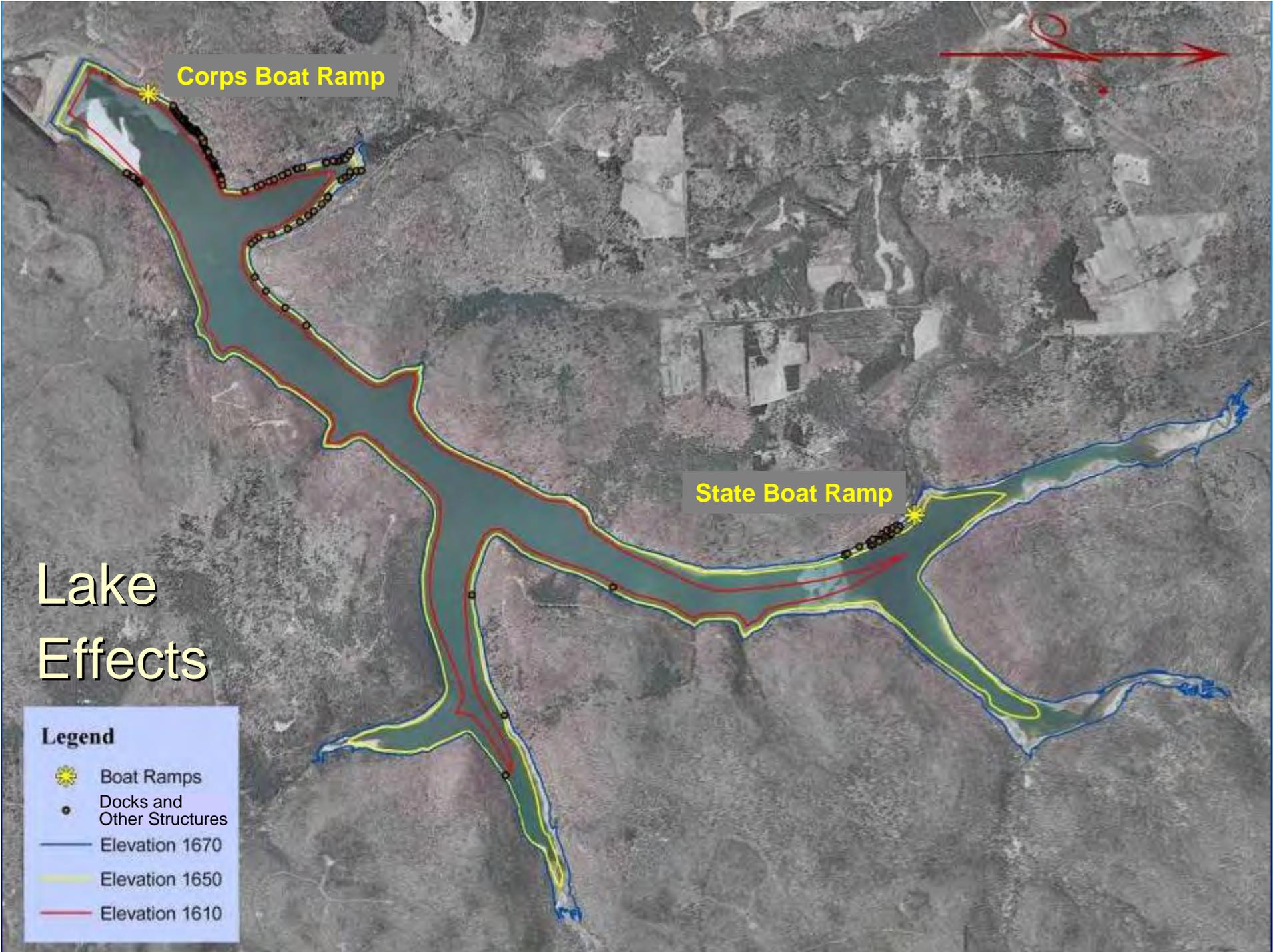
Downstream Effects



Johnsonburg
Paper Mill
Employs 400



Piney Dam Hydroelectric
Produces Average of
71,000 MW/Year



Corps Boat Ramp

State Boat Ramp

Lake Effects

Legend

- ☀ Boat Ramps
- Docks and Other Structures
- Elevation 1670
- Elevation 1650
- Elevation 1610



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Effects of Lower Pool...Less Water

- ◆ **Public Health and Safety**
 - Reduce Dam Safety Risk
 - Discharge Permits, Water Intakes
 - Water Quality
- ◆ **Socio-Economic**
 - Paper Mill Jobs
 - Hydropower Production
 - Recreation Revenue
- ◆ **Environmental**
 - Warmer Lake Water
 - Cooler Outflow
 - Aquatic Habitat – Lake & Downstream
- ◆ **Recreation**
 - Boat Launch and Dock Access
 - Lake Surface Area
 - 'Wild & Scenic River'



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Key Next Steps

- ◆ Collect and Analyze Data
- ◆ Review Pool Level Action; Adjust if Needed
- ◆ Determine Remedial Actions
- ◆ Repair Dam, if Necessary



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Key Points

- ◆ Public Safety is First Priority
- ◆ We're Early in this Process
- ◆ Community Involvement is Key
- ◆ Communicate



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- ◆ Website:

www.lrp.usace.army.mil/rec/lakes/eastbran.htm

- ◆ Public E-mail:

EastBranch@usace.army.mil

- ◆ Future Public Meetings



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Points of Contact

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