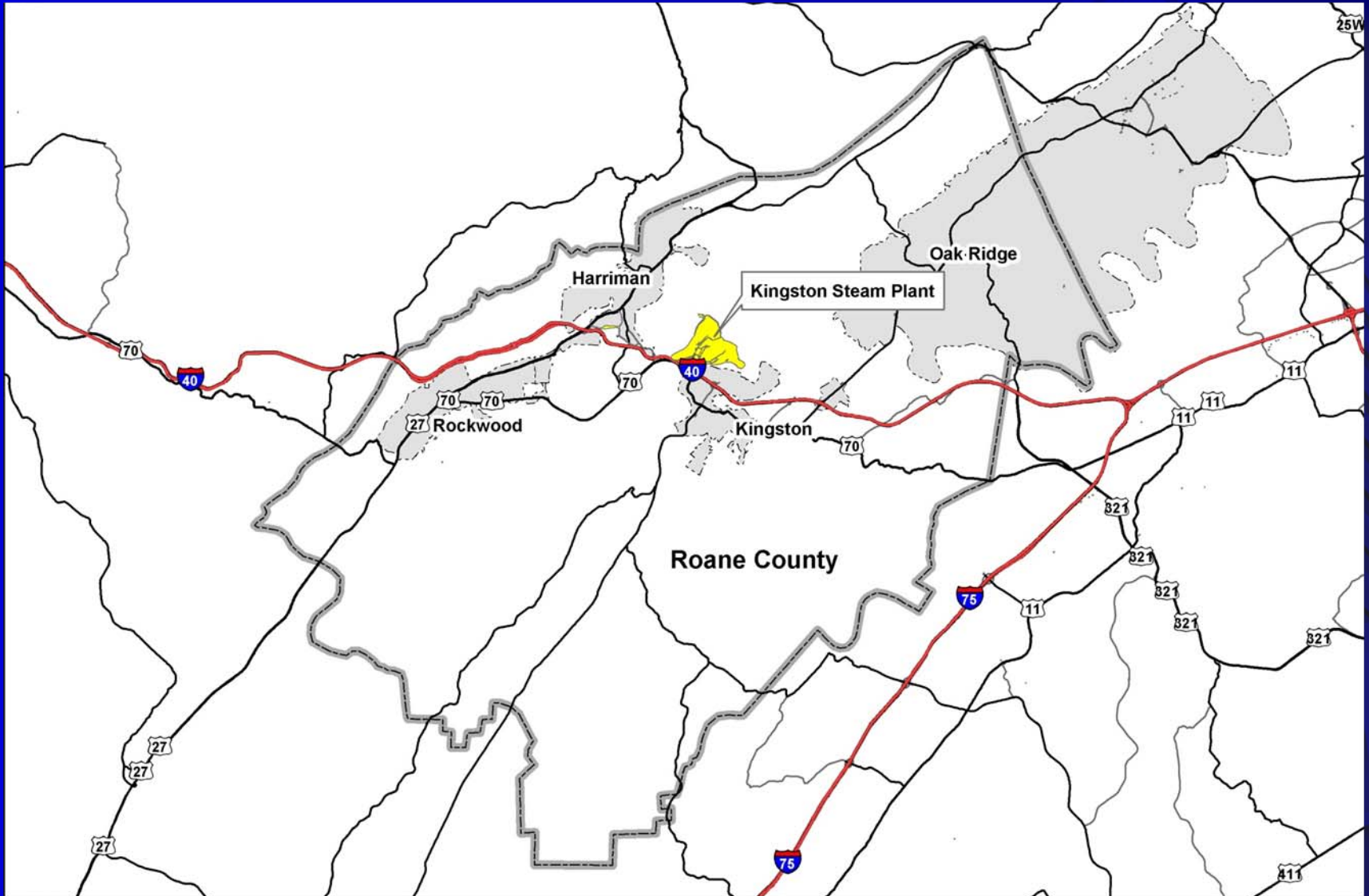




# Kingston Ash Recovery Project Community Update

*Steve McCracken, General Manager*

# Where is Kingston?



# What Is Kingston?

TVA part of Kingston community since early 1950s

- Construction of plant began in 1951
- First unit began operation in 1955

When completed, world's largest coal-burning plant

- 300 employees
- 9 generators
- 700,000 homes

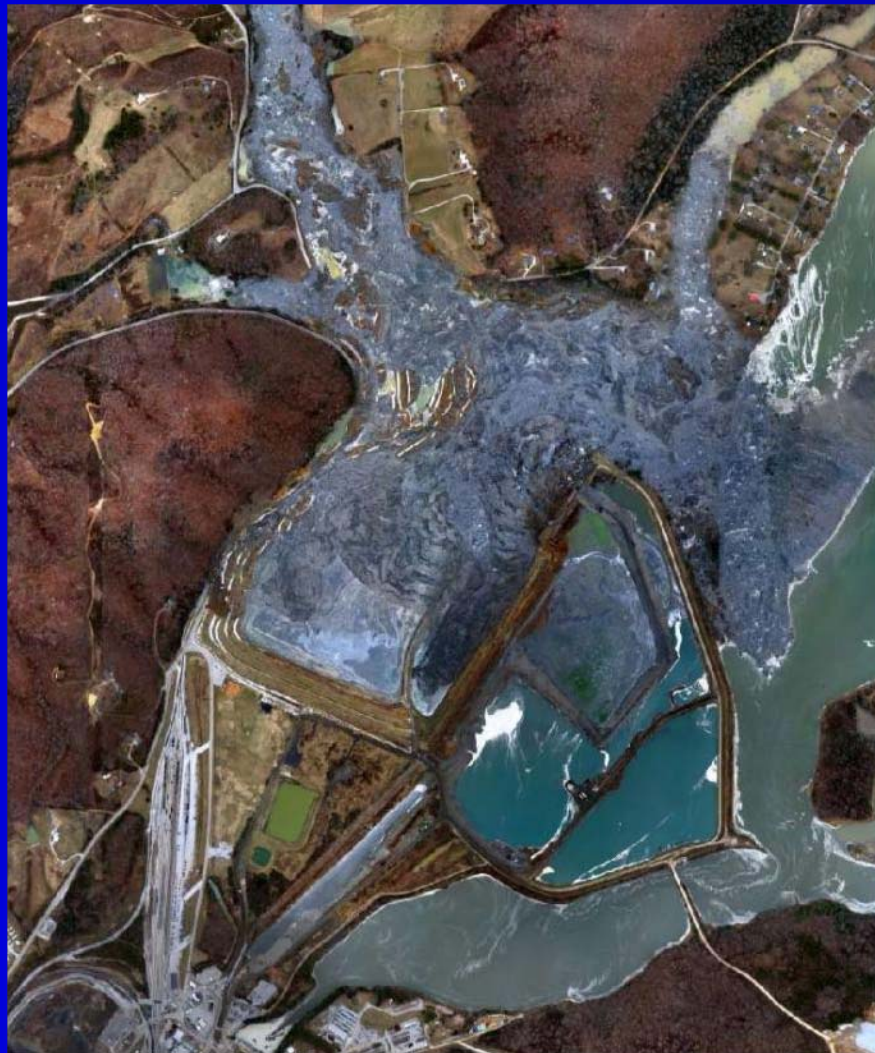


# What Happened at Kingston?

**December 22, 2008, between midnight & 1 a.m.**

- 5.4 million cubic yards of ash
- 300 acres (half a square mile)
- 3 homes uninhabitable, 23 damaged
- Roads, rails, & utilities disrupted

# Then and Now



*December 23, 2008*



*November 25, 2009*

# Kingston Recovery Project

Time Critical

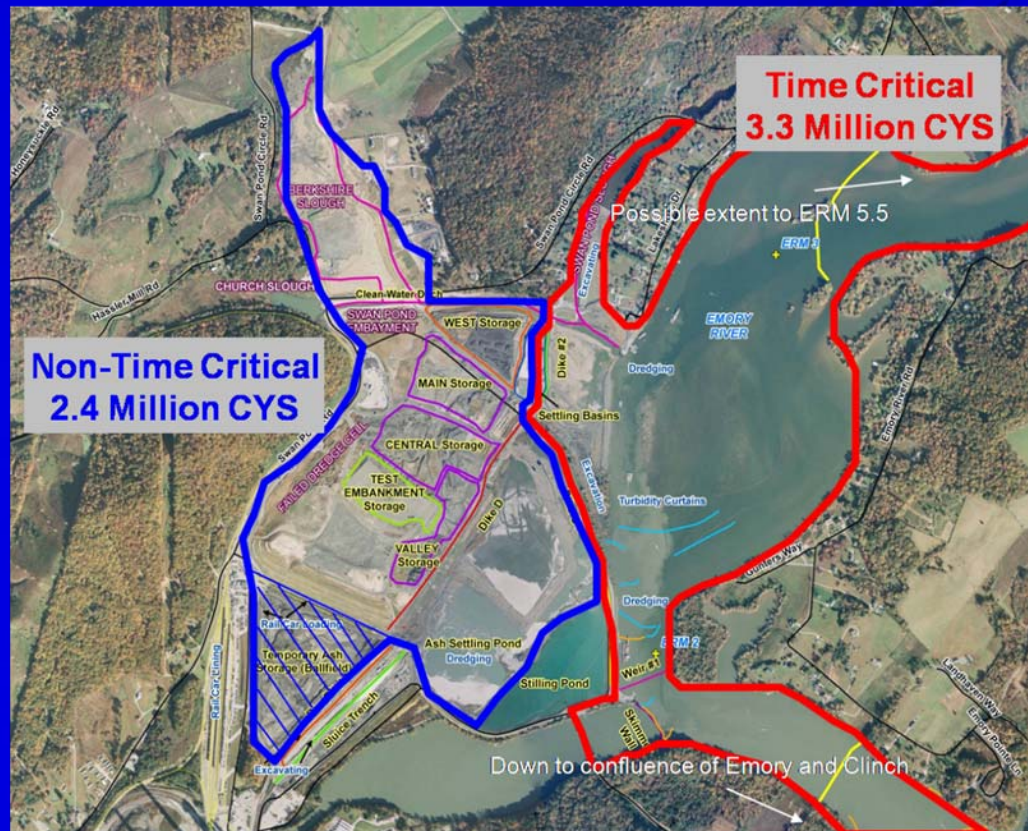
Non-Time Critical

Long Term

0-18 months

2-5 years

4+ years



# Kingston Recovery Project

## Time Critical

0-18 months

### STABILIZATION & RECOVERY:

#### Scope:

- Remove Ash from River
  
- Example Plans:
- Dredging & Excavation Plan Removal Action Plan
- Site Health & Safety Plan
- Storm Water Management Plan
- Dust Control & Air Monitoring
- Data Management Plan
- Surface Water Monitoring Plan
- Offsite Disposal Plan
- Community Involvement Plan



## Non-Time Critical

2-5 years



### RECOVERY & REMEDIATION:

#### Scope:

- Remove Residual River Ash
- Released Ash in Embayment
- Address Ash in Failed Cell
- Restore Temporary Use Areas

#### Example Plans:

- Engineering Evaluation & Cost Analysis (EE/CA)
- Embayment Disposition Plan
- Failed Cell Closure Plan
- Residual Ash Removal Plan
- On Site Remediation Plan

#### Other Achievements:

- Established Interagency Working Group



# Kingston Recovery Project

## Long-Term

4+ years



### MONITORING & REMEDIATION:

#### Scope:

- Long Term Recovery of Natural Resources
- Long Term Environmental Monitoring

#### Example Plans:

- Trustee Group Established
- Natural Resources Damage Assessment
- Environmental Monitoring Plan
- Environmental Remediation Plan

#### Other Achievements:

- Trustee Group Established



# Priorities

- **Protect human health & the environment**
- **Reopen the Emory River**
- **Restore the land and water**
- **Rebuild trust with Roane County community**



# Protecting Human Health & the Environment

## Air Samples

- Mobile PM10

*179,990 real-time measurements*

- Real-time PM2.5

*Measurements every 5 minutes*



## Water Samples

- Emory, Clinch & Tennessee rivers

*3,139 surface water samples*

*129,467 analytical results*

- Water quality, pH, turbidity, velocity

*1.8 million real-time measurements*



# Protecting Human Health & the Environment

- Sediment Sampling: *162 samples*
- Radiological: *76 samples*
- Waste Characterization: *281 samples*
- Biota Samples
  - Fish: *344 samples*
  - Amphibian: *76 samples*
  - Avian: *133 samples*
  - Reptile: *48 samples*
  - *Vegetation: 31 samples*



- **Water & air continue to meet standards**
- **Initial studies suggest no acute eco-toxicity from ash**

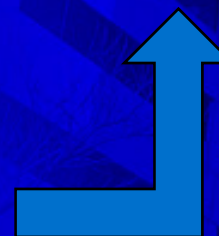
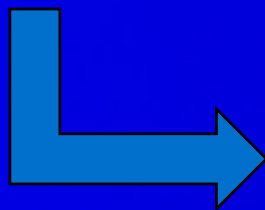
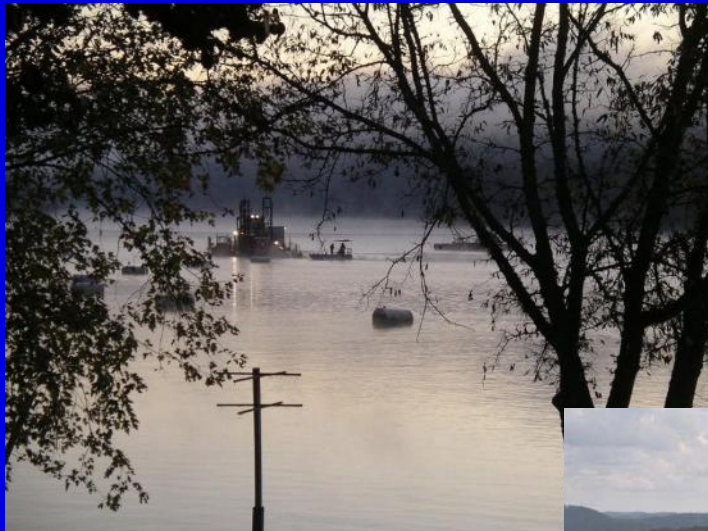
# Protecting Human Health & the Environment

- **Collaborating with other agencies & academia**
  - **Ecological studies**
  - **Coal ash research**
  - **Health screenings**
- **Tennessee Department of Health  
Public Health Assessment**



# Reopen the River

## Dredge



Ship

Process

# Onsite Construction Statistics

- More than 700 personnel onsite, including construction, engineering, and office personnel
- 150 or more pieces of heavy equipment operating
- Jacobs Engineering is onsite PM to manage recovery efforts
- Other onsite companies include:
  - TVA Civil Projects
    - Largest work group onsite
  - Numerous contractors (all listed on website):
    - Severson – dredging
    - Mactec – ash loading
    - Norfolk Southern – rail transportation
    - SWS – cenosphere collection
    - Phillips and Jordan – ash disposal

Site Drainage System



# Reopen the River

- **Over 2.8 million cubic yards of time-critical ash removed through March 14, 2010**
- **176 trains have transported nearly 1.65 million tons of ash**
- **Made operational improvements to dry ash & remove it from site more quickly**
- **Utility restoration & enhancement progressing**
- **EE/CA plan issued mid-January**



# Restore the Land & Water



*Swan Pond Circle*

# Restore the Land & Water



*Swan Pond Embayment*

# Restore the Land & Water



*Swan Pond Road*

# Restore the Land & Water



*Church Slough Then*



*Church Slough now*

# Regain Community Trust

- Public Meetings/ Availability Sessions
- Long-term Recovery Committee
- Community Advisory Group
- Community Involvement Plan
- Economic Development
- ORAU Health Assessment



# Four Priorities

- Protect human health & the environment
  - ✓ *A continuing responsibility*
- Reopen the Emory River
  - ✓ *On track for this spring*
- Restore the land & water
  - ✓ *Significant improvements already*
- Rebuild trust with Roane County community
  - ✓ *Ongoing efforts to make things right*

# Making Things Right



01/08/2009



12/17/2009

Today