Lake Forrest Dam Repair
Project Update

- **Project Background**

- **Condition of Dam**
  - Category 1 Dam - Define
  - Safe Dams - Explain
  - Current Dam Conditions

- **Phase 1-Draining of Lake**
  - Draining of Lake - Why? How? Timeline, maintenance, etc.

- **What are the options?**

- **Phase 2 - Design Process**
  - Surveys
  - Permit Requirement
  - Geotechnical analysis/report
  - Hydraulic design
  - Structural design
  - Coordination with utilities
  - Coordination with U.S. Army Corps of Engineers
  - Obtaining stream buffer variance from EPD
  - Obtaining easements

- **Phase 3 - Construction Process**
  - Prequalification of contractors - due to project complexity
  - Inspection requirements during construction
  - Onsite Manager
  - Traffic Management (construction impacts, road and/or lane closure, etc.)
  - Project Duration (estimate)

- **Next Steps**
  - Meet with community on February 11, 2015
  - Begin draining lake
  - Continue design process
  - Refine options
  - Present additional information/updates to community and to Sandy Springs Council (and City of Atlanta Council) periodically
  - Staff to make recommendation of preferred option to Sandy Springs Council for their approval in conjunction with City of Atlanta

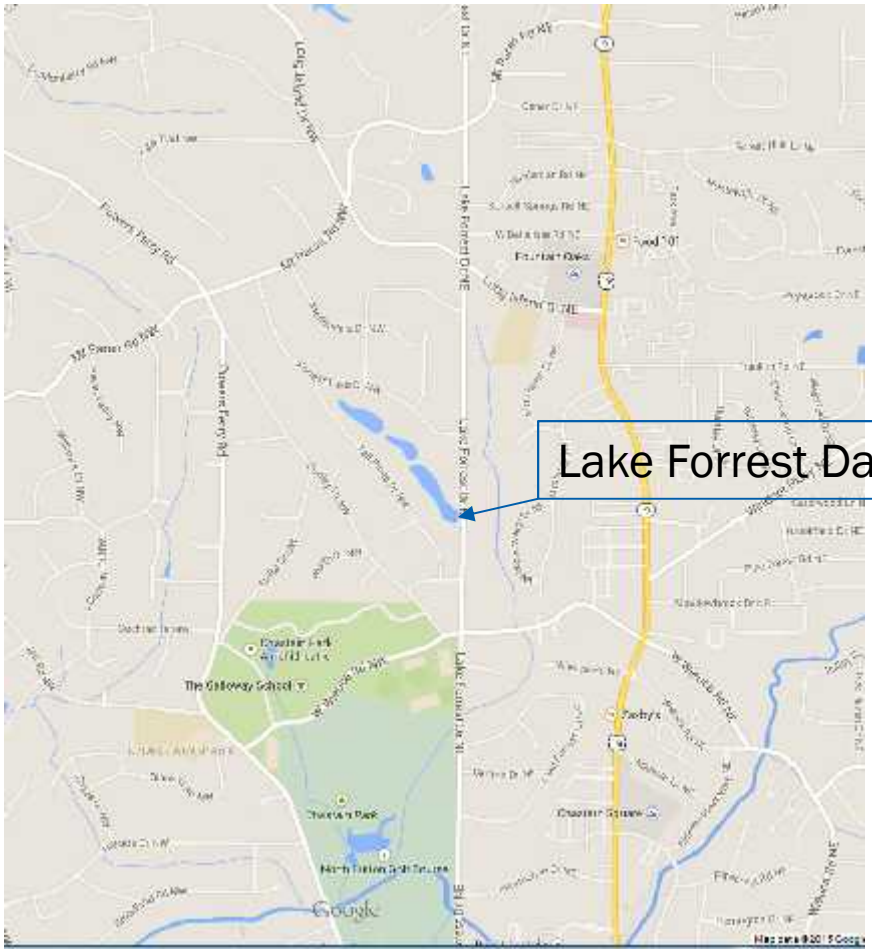
LAKE FORREST DAM PROJECT UPDATE

February 3, 2015

Project Background

- Identified by Georgia DNR in 2009 as a Category I Dam (threat to life downstream)
- Search for owner was inconclusive. Several potential owners include:
  - City of Atlanta
  - City of Sandy Springs
  - Fulton County
  - Three Lakes Corporation
  - Individual property owners in Atlanta and Sandy Springs
- Municipal boundary between City of Atlanta and City of Sandy Springs splits the dam
- Lake Forrest Drive crosses over the dam
- Partnership with City of Atlanta

Project Background



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Condition of the Dam

- Dam appears to be at least 60 years old. Deficiencies identified include:
  - Corrosion in the corrugated metal pipes and riser
  - Upstream and downstream slopes are covered with trees
  - Steep downstream slope
  - Does not meet hydraulic criteria

Condition of the Dam

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Condition of the Dam

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Condition of the Dam

Recommended First Step

- Options to make the dam safe until issues are addressed have been evaluated.
  - The only option that ensures the dam will not fail is to drain the lake.
  - It takes several months for the soil to dry in preparation for the final repair. When the soil is dry, testing required for the final design can be done.
  - Draining the lake is the most cost effective measure to make the dam safe until the issues can be addressed.

Types of Options

Option 1: Only breach the dam to keep the lake drained

- Regulations require downstream flood control
- Still costs associated for breaching and downstream flood control

If regulatory requirements are not installed as mentioned above, this option is a non-starter.

Types of Options

Option 2: Repair the dam

Pros:

- Maintains historical environmental habitat
- Provides additional flood protection
- Addresses safety hazards (will address significant slope on downstream embankment)

Cons:

- Would require Lake Forrest Drive to be closed for an extended period of time
- Would require easements and possible property acquisitions

Types of Options

Option 3: Create a wet stormwater retention area upstream

Pros:

- Would not have a Category I dam to maintain in the future
- May disrupt traffic on Lake Forrest Drive for a shorter duration

Cons:

- Created pond may be required to meet current regulations
- Since space is limited, pond construction may be challenging
- Significant property acquisitions may be required
- May increase downstream flows
- Mitigation may be required
- There may be regulatory challenges with getting this option approved
- With all things considered, cost may be more than repairing the dam

Types of Options

Option 4: Create a dry stormwater retention area upstream

Pros:

- Would not have a Category I dam to maintain in the future
- May disrupt traffic on Lake Forrest Drive for a shorter duration.
- May provide more storage than a wet stormwater retention area.

Cons:

- Created pond may be required to meet current regulations
- Since space is limited, pond construction may be challenging
- Significant property acquisitions may be required
- May increase downstream flows
- Mitigation may be required
- There may be regulatory challenges with getting this option approved
- With all things considered, cost may be more than repairing the dam

Design Process

- Surveys
- Geotechnical analysis/report
- Hydraulic design
- Structural design
- Coordination with utilities
- Coordination with U.S. Army Corps of Engineers
- Obtain stream buffer variance from EPD
- City of Atlanta/Sandy Springs permits
- Obtain easements

Construction Process

- Prequalification of contractors - due to project complexity
- Inspection requirements during construction
- Onsite Manager
- Traffic Management - Road Closure
- Project Duration (Estimated)

Next Steps

- Meet with community on February 11, 2015
- Begin draining lake
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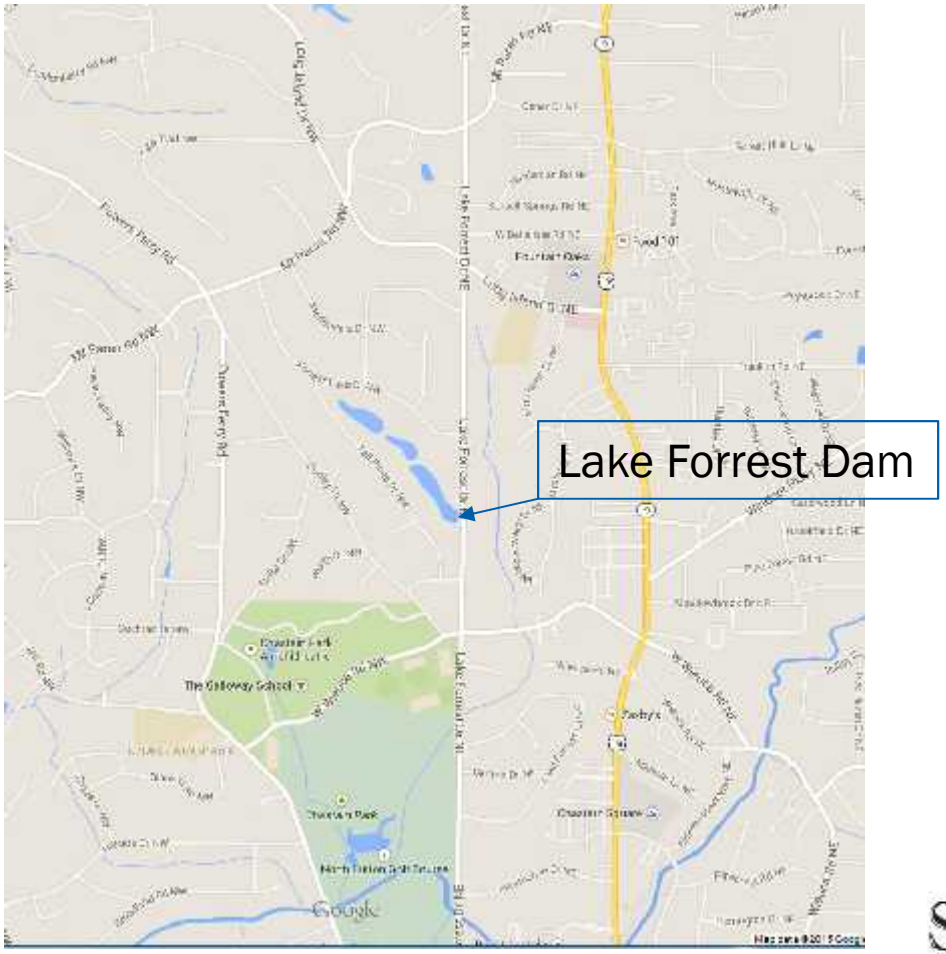
Lake Forrest Dam Project Update

QUESTIONS

Lake Forrest Dam Project Update



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