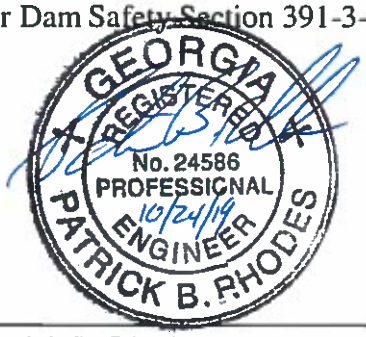
EMERGENCY ACTION PLAN

Georgia Power Company
Plant Scherer
Ash Pond AP-1 Dam
State ID: 102-032-04236
NID: GA07217
Monroe County, GA

I hereby certify that this Emergency Action Plan has been prepared in accordance with the requirements of the United States Environmental Protection Agency Coal Combustion Residual (CCR) rule (40 C.F.R. Part 257.73) and the Georgia Department of Natural Resources Environmental Protection Division Rules for Dam Safety Section 391-3-8-.11.



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ISSUE DATE: **October 24, 2019**
REVISION #: **1**

REVISION RECORD

In accordance with 40 CFR Part 257.73 and GASDP Rule 391-3-8-.11, this Emergency Action Plan (EAP) must be amended whenever there is a change in conditions that would substantially affect the EAP. Additionally, the EAP should be reviewed annually to ensure the information is accurate. As necessary, this EAP must be updated and a revised EAP placed in the facility's operating record.

Revision Number	Date	Sections Affected/Reason
0	04/17/2017	Creation of Initial EAP
1	10/24/2019	Updated EAP to meet both CCR Rule and GASDP requirements by merging REV. 0 of CCR EAP with the EAP submitted to GASDP for permit issue in November 2015. Added reservoir lowering information in Section 7.4

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ACRONYMS AND ABBREVIATIONS

AP-1	Plant Scherer Ash Pond
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
EAP	Emergency Action Plan
EMA	Emergency Management Agency
EPA	Environmental Protection Agency
FDS	Fossil Dam Safety
GASDP	Georgia Department of Natural Resources Environmental Protection Division – Safe Dams Program Division
GDNREPD	Georgia Department of Natural Resources Environmental Protection Division
GDOT	Georgia Department of Transportation
GEMA	Georgia Emergency Management Agency
GEOP	Georgia Emergency Operations Plan
GPC	Georgia Power Company
H:V	Horizontal:Vertical
HEC-RAS	Hydrologic Engineering Center's River Analysis System
HDPE	High-Density Polyethylene
HEC-RAS	Hydrologic Engineering Center's River Analysis System
H&H	Hydrological and Hydraulic
ID	Inside Diameter
MSL	Mean Sea Level
NID	National Inventory of Dams
NS	Norfolk Southern Corporation
SCS	Southern Company Services
T&PS	Technical and Project Solutions

DEFINITIONS

Adverse Consequences. Negative impacts that may result from the failure of a dam. The primary concerns are loss of life, economic loss (including property damage), lifeline disruption and environmental impact.

Category I Dam. State of Georgia Safe Dams Program designation for Hazard Potential indicating that improper operation or failure would result in a probable loss of human life.

Category II Dam. State of Georgia Safe Dams Program designation for Hazard Potential indicating that improper operation or failure would not be expected to result in a probable loss of human life.

Coal Combustion Residuals (CCR). Fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.

CCR Surface Impoundment. A natural topographic depression, man-made excavation, or damed area which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

Dam/Dike/Embankment. An artificial barrier that has the ability to impound water, wastewater, or any liquid-borne material for the purpose of storage.

Dam Failure. Catastrophic type of failure characterized by the sudden, rapid and uncontrolled release of impounded water or the likelihood of such an uncontrolled release. It is recognized that there are lesser degrees of failure and that any malfunction or abnormality outside the design assumptions and parameters that adversely affect a dam's primary function of impounding water is properly considered a failure. These lesser degrees of failure can progressively lead to or heighten the risk of catastrophic failure. They are, however, normally amenable to corrective action.

> **Imminent Failure (Condition A Emergency).** Failure of a dam/dike/embankment is imminent or has occurred.
>
> **Potential Failure (Condition B Emergency).** A potential failure condition of a dam/dike/embankment is a developing condition, but adequate time is available to properly evaluate the problem and implement corrective actions that may alleviate or prevent failure.
>
> **Non-Failure Condition.** A condition that will not, by itself, lead to a failure, but that requires investigation and notification of internal and/or external personnel.

Emergency. A condition that develops unexpectedly, endangers the structural integrity of the dam, and requires immediate action. An emergency can lead to Adverse Consequences in the event of Imminent Failure.

Filter. One or more layers of granular material graded to allow seepage through or within the layers while preventing the migration of material from adjacent zones.

Hazard Potential Classification (40 CFR 257.53). The possible adverse incremental consequences that result from the release of water or store contents due to failure of the diked CCR surface impoundment or mis-operation of the diked CCR surface impoundment or its appurtenances. The hazardous potential classifications include high hazard potential CCR surface impoundment, significant hazard potential CCR surface impoundment, and low hazard potential CCR surface impoundment, which terms mean:

> **High Hazard Potential CCR Surface Impoundment -** A diked surface impoundment where failure or mis-operation will probably cause loss of human life.
>
> **Significant Hazard Potential CCR Surface Impoundment -** A diked surface impoundment where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.
>
> **Low Hazard Potential CCR Surface Impoundment -** A diked surface impoundment where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the surface impoundment's property owners.

Inundation Map. A graphic representation of the inundation zone that shows the potential impact area due to a breach of the Ash Pond. The inundation maps in this procedure are based on a specific computer-modeled dam breach scenario; therefore, the boundaries depicted are estimates for that particular model. *The models are considered conservative but larger floods could potentially occur.* Please refer to Section 2.0 and Appendix B.

Inundation Zone. Area subject to flooding in the event of increased flows due to a dam/dike/embankment failure.

Piping. The progressive development of internal erosion of the dam/dike/embankment or foundation material by seepage.

Probable Maximum Flood. The flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in the drainage basin.

Sunny Day Failure. A night or day failure that occurs during fair weather or when weather-related flooding is not occurring.

1.0 STATEMENT OF PURPOSE

This Emergency Action Plan (EAP) has been prepared for the Plant Scherer Ash Pond AP-1 to meet the requirements of 40 CFR Part 257.73(a)(3) (CCR Rule) and GASDP Rule 391-3-8-.11. The purpose of this EAP is to minimize danger to human life, economic and ecological damage, and to protect property and assets by providing a pre-planned course of action in the event of a possible, impending, or actual dam failure at Plant Scherer AP-1.

This EAP will provide responding personnel with:

- Pertinent information related to Plant Scherer AP-1 dam;
- Definition of events or circumstances that represent a safety emergency;
- Procedures that will be followed to detect a safety emergency;
- Notification procedures in the event of a safety emergency;
- Information to assist in decision making;
- A list of responsible persons and their respective responsibilities;
- A list of resources available to support the response effort;
- Provisions for an annual face-to-face meeting with local emergency responders;
- Contact information for emergency agencies and other emergency responders;
- Contact information for additional resources and outside agencies; and
- Maps that delineate the downstream area that could be affected in the event of a failure.

2.0 FACILITY DESCRIPTION

Plant Scherer is a coal-fired power plant located near Juliette, Georgia. This EAP covers emergency response procedures for the Plant Scherer Ash Pond (AP-1), which is designed to receive and store coal combustion residuals and low volume waste streams produced during the electric generating process at Plant Scherer. An overview of Plant Scherer and the surrounding area is shown in Appendix A – Figure 1.

AP-1 is approximately 550 acres in size at its normal pool elevation of 495 feet (Appendix A – Figure 2 and Figure 3). AP-1 has an earthen dam on its north, east, and south sides. The south end of the pond is utilized for dry ash storage and contains no standing water; therefore, potential failure of the south dam is not considered a safety emergency. The north dam has a maximum height of approximately 30 feet and the east dam has a maximum height of approximately 100 feet. The upstream slope of the dam is covered with Fabriform, a concrete-filled erosion protection blanket, which extends approximately 50 feet down the slope to approximate elevation 485 feet MSL. The crest surface is composed of grass and a crushed stone access drive. Downstream slopes are covered with grass. Outlets are located near the southwest corner of AP-1 and consist of:

1. A 72-inch inside diameter, standpipe/morning glory style primary outlet structure with crest at elevation 494.5 feet MSL.

2. An auxiliary spillway consisting of a concrete, trapezoidal weir with an 85-foot bottom width and 2.5H:1V side slopes that flows into a grass lined channel with a 100-foot bottom width and 2.5H:1V side slopes.

3. Two 20-inch diameter (17.5-inch I.D.) high-density polyethylene (HDPE) siphon pipes. The siphon pipes are normally closed but can be activated during times of high flow or to lower the AP-1 reservoir for inspection and maintenance of the primary outlet structure.

AP-1 is classified as a Category I structure by the Georgia Department of Natural Resources – Environmental Protection Division – Safe Dams Program and has been assigned a High Hazard Potential classification under 40 C.F.R. Part 257.73 of the Environmental Protection Agency's (EPA's) Coal Combustion Residuals (CCR) Rule. These classifications, by definition, indicate that there is a probable loss of human life in the event of a dam failure or misoperation of the facility. There are also structures that could be impacted by the failure of the AP-1 dam or misoperation of the surface impoundment. There are no other large dams located downstream that could be impacted by the failure of the AP-1 dam. The I-Pond Dam, which is a detention pond located on Plant Scherer property, could be impacted by a failure of AP-1 but the volume of the I-Pond is in the provided mapping since it would be completely inundated as part of the proposed east dam failure scenario. US Highway 23/Georgia Highway 87 and a Norfolk Southern railroad, located between Plant Scherer and the Ocmulgee River, would be impacted by failure of the dam, and several other local roads could also be impacted.

The limits of potential flooding in the event of failure of the AP-1 dam can be seen on the Inundation Maps, which are included as Appendix B. The provided inundation maps were developed based on the results of routing the breach wave downstream using the computer software, HEC-RAS. HEC-RAS is a general application one-dimensional hydraulic model that can perform unsteady flow routing through an open channel system that may also include culverts, bridges, levees, tributaries, storage areas, and other dams. Unsteady flow analyses allow for flow

conditions that vary temporally and spatially such as a dam breach simulation. Breach parameters such as failure time, breach width, and breach side slopes were selected from industry accepted empirical formulas. Water surface elevation data was extracted from the hydraulic model and plotted on best available LiDAR topographic information for the downstream areas.

Normal river/lake levels and the flow from the simulated dam breaches were superimposed over topographical and aerial maps to identify areas subject to flooding. ***These flood extents are provided for planning purposes only; actual flooding can vary due to actual conditions present at the time of the failure.***

3.0 DETECTION, EVALUATION, AND CLASSIFICATION PROCEDURES FOR EMERGENCIES

3.1 Inspection Schedule and Emergency Detection/Evaluation

Trained personnel from Plant Scherer inspect the AP-1 dam on a regular basis to pre-emptively detect conditions, in a timely manner, that could indicate or reveal a potential issue so that it can be addressed in a timely manner. Personnel from the Plant's Security Group make daily rounds at the AP-1 dam, the Environmental Compliance group performs inspections on a 7-day or less basis, and SCS Fossil Dam Safety (FDS) personnel perform semiannual inspections. The Georgia Safe Dams Program carries out periodic independent inspections also.

Instrumentation consisting of piezometers, drains, and deformation monuments are installed along the AP-1 dam. The instrumentation is read/measured on a 30-day or less basis and the results are reported to FDS for evaluation.

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Plant personnel conducting inspections of the AP-1 dam are trained on an annual basis by engineers from FDS on the appropriate surveillance and monitoring requirements. This training meets the requirements set forth in the CCR Rule for qualified persons.

Any issues discovered during an inspection are reported to FDS as prescribed in the Safety Procedure for Dams and Dikes at Fossil Generation Plants (GEN10004). The FDS Engineer(s) working with plant personnel will recommend a corrective course of action, as needed.

3.2 Condition Severity Classifications

AP-1 dam emergencies will be classified based on the type of event, severity of the situation, and the time required to take corrective measures. This procedure covers the following emergency classifications:

NON-FAILURE CONDITION (NFC)

A situation that will not, by itself, lead to a failure and is not considered an emergency. However, an NFC does require investigation and notification of FDS may require corrective action.

POTENTIAL FAILURE – Condition B Emergency (B)

A developing situation where failure of a dam may occur but implementation of pre-planned actions may alleviate or prevent failure. In general, adequate time is considered available to properly evaluate and implement corrective actions. Should conditions worsen, an Imminent Failure emergency may be declared.

IMMINENT FAILURE – Condition A Emergency (A)

A situation where failure of the dam is imminent or has already occurred.

3.3 Guidance for Determining the Condition Severity Level

The following table details potential situations that could occur at the AP-1 dam. The Condition Level indicated in the right-most column corresponds with the Condition Severity Classifications in Section 3.2 above.

Event	Situation	Emergency Level
Emergency Spillway Flow*	AP-1 water surface elevation at emergency spillway crest or spillway is flowing with no active erosion	NFC
	Emergency spillway flowing with active gully erosion	NFC
	Emergency spillway flowing with an advancing headcut that is threatening the control section	NFC
Embankment Overtopping	AP-1 level is 1 foot below the top of the dam	B
	Water from AP-1 is flowing over the top of the dam	A
Seepage	New seepage areas in or near the dam	NFC
	New seepage areas with cloudy discharge or increasing flow rate	B
	Seepage with discharge greater than 10 gallons per minute	A
Dropouts/ Depressions	Observation of new dropouts or depressions on the AP-1 dam	B
	Rapidly enlarging dropout or depression on the AP-1 dam	A
Embankment Cracking	New cracks in the embankment greater than ¼-inch wide without seepage	NFC
	Cracks in the dam with seepage	B
Embankment Movement	Visual movement/slippage of the dam slopes	NFC
	Sudden or rapidly proceeding slides of the dam slopes	A
Instruments	Instrumentation readings beyond predetermined/historic values	NFC
Earthquake	Measurable earthquake felt or reported on or within 50 miles of the dam	NFC
	Earthquake resulting in visible damage to the dam or its appurtenances	B
	Earthquake resulting in uncontrolled release of water from the dam	A
Security Threat	Verified bomb threat that, if carried out, could result in damage to the dam	B
	Detonated bomb that has resulted in damage to the dam or its appurtenances	A
Sabotage / Vandalism	Damage to dam or its appurtenances that could adversely impact the functioning of the dam	NFC
	Modification to the dam or its appurtenances that could adversely impact the functioning of the dam	NFC
	Damage to dam or its appurtenances that has resulted in seepage flow	B
	Damage to the dam or its appurtenances that has resulted in uncontrolled water release	A

* AP-1 auxiliary spillway is not located on or near the AP-1 dam. Spillway discharges into the Recycle Pond.

4.0 INCIDENT RESPONSE

The majority of past failures of earthen dams across the United States can be attributed to overtopping and seepage leading to internal erosion, piping, and slope instability. Detection and mitigation of these potential failure modes is described below:

Overtopping. AP-1 has a relatively small watershed area compared to the overall size of the reservoir. AP-1 receives and/or contains rainfall and stormwater runoff and submerged CCR. The AP-1 spillway system is inspected on a 7-day or less basis by plant personnel and is designed to safely pass the full Probable Maximum Flood. In times of extreme flooding, personnel will be dispatched to monitor the dam and spillway system. Any potential overtopping would be discovered prior to the actual overtopping of the dam by proactive inspections and surveillance.

Seepage. Failures due to internal erosion and/or piping resulting from seepage would be detected in the early stages during the regular inspections conducted by plant personnel. Inspectors are trained to look for evidence of seepage. In addition, piezometer readings will help reveal changes in subsurface water pressure. Inspection reports and instrumentation readings are transmitted to FDS for evaluation. Therefore, the conditions that could lead to failures of this type would likely be discovered and corrected early, making an actual failure a remote possibility.

Slope Instability. Slope instability would be demonstrated by sloughing of the dam slopes, which would be detected by security personnel during their daily patrols or by Environmental Compliance personnel during their inspections. The conditions that could potentially lead to a failure of this type would also be detected in advance and corrected making an actual failure a remote possibility.

In the event that conditions are detected that could potentially lead to a dam failure, the flowcharts in Appendices C (Incident Response) and D (Response Notification) will be used to respond to the situation and alert applicable personnel and emergency agencies. In that situation, local emergency management agencies (EMAs) would respond, begin warnings and initiate evacuations as soon as possible following the declaration of a safety emergency.

4.1 Access to the Site

Plant and emergency personnel are able to access the dam by paved or rock surfaced roadways from the Plant Scherer access/entrance road and from the north by Luther Smith Road.

Plant Scherer's Street Address:
10986 Highway 87
Juliette, Georgia 31046

Lat/Long:
Entrance: 33°4'36"N / 83°47'2"W
Ash Pond Dam East Embankment: 33°4'28"N / 83°48'24"W
Ash Pond Dam North Embankment: 33°4'51"N / 83°48'33"W

Normal Non-Flooding Conditions

From North or South on US 23/GA 87: Enter Plant Scherer at main entrance on US 23/GA 87. Pass the security building and you will reach a railroad crossing. Turn right before the railroad crossing. Travel 0.5 miles westbound parallel to the rail line and turn right onto an unnamed gravel road. Travel roughly 1,000 ft. in the North direction.

Flooding/Road Closure Conditions

If GA-87/US-23, East Juliette Road, or Luther Smith Road are impacted by high flows, response time by outside agencies or personnel would be affected. Therefore, several routes are cited below to aid the appropriate personnel more efficiently to the dam site in case of emergency.

From North on Juliette Road: Take Juliette Road to Old Juliette Road. Stay left at fork on West Redding Road. Turn left on Holly Grove Road Travel eastbound on Holly Grove Road and it will merge with Luther Smith Road. Gate will be on right about 800 feet past merger.

You may also take Juliette Road to Maynard Church Road. Maynard Church Road will dead end into GA 18. Take GA 18 east to US 23/GA 87 north and enter Plant Scherer main entrance as in non-flooding conditions.

From South on US 23/GA 87: Enter Plant Scherer main entrance as in non-flooding conditions or take GA 18 west to Maynard Church Road which will dead end into Juliette Road. Follow directions presented above for Juliette Road.

4.2 Response during Periods of Darkness

Plant Scherer is operational, manned, and accessible 24 hours a day every day. Response times would not vary significantly from daylight conditions. Portable light stands and generators are available at the plant for night-time operations, if needed. Please refer to Section 7.0 for a list of additional resources available to support the response effort.

4.3 Response during Weekends and Holidays

Plant Scherer is operational, manned, and accessible 24 hours a day every day. The response times of certain personnel may be affected during weekends and holidays. However, 24-hour contact information for responsible personnel is included in Appendix D.

4.4 Response during Adverse Weather

The dam is accessed by paved and gravel-surfaced roads and is accessible during periods of adverse weather. If severe flooding causes road closures, alternative access routes will need to be considered and response times may be adversely affected. Alternative routes are presented in Section 4.1, if needed.

5.0 RESPONSIBLE PERSONS AND RESPONSIBILITIES

Designated personnel have been trained in the use of these response procedures and are aware of their responsibilities in making the procedures effective. The chain of command and the individual responsibilities for plant personnel, public officials, and agencies are outlined below.

5.1 Plant Manager

The Plant Manager is ultimately responsible for the content, effectiveness, and implementation of the response procedures. The Plant Manager normally serves as the Incident Commander or designates this person. *Plant Managers have the authority and responsibility to direct all on-site activities.*

The Plant Manager or his designee will assess the conditions, direct the corrective and protective measures necessary to mitigate the condition(s), and, if necessary, declare an emergency condition. The Plant Manager or his designee will also declare the termination of an emergency condition. Once outside agencies are notified, the Plant Manager or his designee is responsible for keeping EMAs informed of any changes in conditions. See Incident Commander responsibilities for further details.

5.2 Duty Officer

The Duty Officer is the 24-hour point of contact for all plant emergencies. If the Plant Manager is unavailable and the Duty Officer is on-site, he/she will assume the duties and responsibilities of the Incident Commander until properly relieved by the Plant Manager or other designee.

5.3 Incident Commander

The Plant Manager or his designee is the Incident Commander. If neither is available, the Duty Officer will assume the duties and responsibilities of the Incident Commander until properly relieved by the Plant Manager or ranking member of the Management Team.

The Incident Commander is responsible for:

1. Verifying that an emergency condition exists.

2. Assessing and declaring the emergency condition.

3. Consulting with FDS to evaluate conditions and determine remediation actions.

4. Emergency Actions
   a. If necessary, implement actions to lower the water level in the impoundment in consultation with FDS personnel/engineers.
   b. Call-out of personnel necessary to perform the work required on plant site during the emergency.

5. Ensures the execution of the procedure/notification process as outlined in both the Incident Response Flowchart (Appendix C) and the Response Notification Flowchart (Appendix D) is completed in an expedient manner.

6. Other responsibilities include:
    a. Establishing lines of communication from the plant to the local and state EMAs.
    b. Ensuring emergency sources of power are available for the operation of essential equipment such as emergency lighting.
    c. Ensuring the availability of heavy equipment and trained operators to aid in the mitigation effort.

5.4 Plant Security Department

The Plant Security Department is responsible for securing company property and controlling access to company facilities. The Plant Security Department will also perform emergency notifications to Plant Environmental Compliance, the Georgia System Operator, and outside agencies as shown on Response Notification Flowchart (Appendix D). This consists of local and state EMAs. **These notifications are mandatory when an emergency condition has been declared by the Plant Manager or Incident Commander.**

5.5 Plant Environmental Compliance

Environmental Compliance personnel are responsible for assessing conditions, contacting the Plant Manager, obtaining assistance from FDS, and for providing technical updates to the Incident Commander. Compliance personnel can also request assistance from GPC Environmental and Natural Resources, if conditions warrant.

5.6 Georgia System Operator

The Georgia System Operator contacts the National Weather Service to inform them of conditions at the plant that may lead to potential flooding downstream. The National Weather Service has the authority to transmit emergency messages to the public through different media (TV, radio, etc.).

5.7 Fossil Dam Safety

Fossil Dam Safety is responsible for coordinating and providing the technical support necessary to mitigate the emergency condition and for notifying the Hydro Services General Manager of the emergency condition. Fossil Dam Safety shall also notify GPC Supply Chain Management and the GASDP as shown on the Response Notification Flowchart (Appendix D).

5.8 GPC Personnel

Environmental and Natural Resources

GPC Environmental and Natural Resources is responsible for coordinating long-term environmental response (after the initial response) and to remediate environmental issues and provide the technical support necessary for any remediation needs. Environmental and Natural Resources is also responsible for all communications with environmental regulatory agencies for appropriate reporting of releases to the environment and for securing variances to existing permits, if needed.

If necessary, Environmental and Natural Resources will also help secure approved remediation contractors for the specific emergency condition that may exist. They will also provide additional

support, such as emergency manpower, material, equipment, and expertise to assist in mitigation efforts, if needed.

Corporate Communications
GPC Corporate Communications is responsible for coordinating the GPC media response and will schedule news briefings and prepare news releases, as required. GPC Corporate Communications will also work with local and State Public Information Officers to ensure that timely, accurate, and consistent information is made available to media outlets.

Corporate Security
GPC Corporate Security is responsible for supporting Plant Security personnel and contracting with local law enforcement for additional security personnel as needed.

Supply Chain Management
Supply Chain Management is responsible for obtaining additional equipment and materials necessary to mitigate the emergency condition and begin the recovery process.

5.9 Emergency Agencies

Local EMAs are responsible for planning and implementing evacuation and sheltering plans as well as directing search, rescue, and recovery efforts. If additional resources are required, the local agencies can contact the Georgia Emergency Management Agency (GEMA) for assistance.

The local EMAs are the point of contact between plant personnel and local jurisdictions. The EMAs are responsible for the direction and control of emergency operations at the local level and keeping local government officials informed of the status of emergency operations.

GEMA generally becomes involved in an emergency situation if the local agencies are not capable of handling the situation or if assistance is requested by a local agency or by the Governor. Refer to the "Georgia Emergency Operations Plan" (GEOP) for an explanation of specific functions. GEMA has responsibilities similar to the local EMAs but is also responsible for mobilizing state military support as well as State Disaster Center operations.

5.10 Law Enforcement

Local Law Enforcement agencies are notified by the appropriate EMAs. GEMA notifies the Georgia State Patrol as well as the Georgia Department of Transportation (GDOT). Law Enforcement is responsible for traffic control and can assist with evacuation, mitigation, and rescue activities.

6.0 NOTIFICATION PROCEDURES

Communication during an emergency event will primarily be by company phone. In the event of system failure, Southern Linc radios and cell phones would be utilized as an alternate method of communication. Notification numbers are listed on the Response Notification Flowchart located in Appendix D.

Local EMAs will be notified in the event of an emergency, and these agencies will be responsible for notifying the public and state agencies. In the event of an imminent failure, local EMAs will be notified to immediately begin evacuation procedures. GPC Corporate Communications will provide information for media outlets and will be responsible for communicating relevant information to the public.

6.1 Incident Response Flowchart for Imminent Failure and Potential Failure Emergencies

This EAP and the following Incident Response Flowchart (below and in Appendix C) for Imminent Failure and Potential Failure Emergencies shall be posted at appropriate locations at Plant Scherer. Personnel responsible for executing mitigation and/or emergency actions shall be thoroughly familiar with their responsibilities under this EAP.

For Non-Failure Conditions, notification should be made to Fossil Dam Safety.

A. Once a problem is discovered, a call is made to notify the Plant's Security Office. The Security Office will then notify Plant Scherer Environmental Compliance. Environmental Compliance will notify FDS engineers immediately for technical consultation, then brief the Plant Manager of the situation. FDS will provide an evaluation of the conditions and will help compliance and management determine if the problem is a **Non-Failure Condition (NFC)**, **Potential Failure (Condition B Emergency) or an Imminent Failure (Condition A Emergency)**. If there is an immediate threat of dam failure, the Plant Manager or Incident Commander will declare an **Imminent Failure (Condition A Emergency)** and proceeds to Step J.

B. If the problem is evaluated and not deemed by FDS to have the potential to cause failure, the dam will be in a **Non-Failure Condition (NFC).** This is not an emergency condition, and no emergency condition will be declared. For this condition, appropriate personnel will be notified. Repair or maintenance activities shall be scheduled and completed expeditiously and follow up inspections and analysis shall be completed by FDS.

C. If the problem is evaluated and FDS determines that it could potentially fail the dam and there IS time for corrective measures to be implemented that could possibly mitigate the risk of failure, then FDS will notify the Incident and a **Potential Failure Emergency (Condition B)** will be declared. Proceed to Step E.

D. If the problem is evaluated and FDS determines that it could potentially fail the dam and there IS NOT time for corrective measures to be implemented that could possibly mitigate the risk of failure, then FDS will notify the Incident and an **Imminent Failure (Condition A Emergency)** will be declared. Proceed to Step J.

E. If a **Potential Failure (Condition B Emergency)** has been declared, the Incident Commander will activate the EAP and notifications will be made on the Response Notification Flowchart (Appendix D). He/she will document all communications using the appropriate forms contained in Appendix E. Once outside agencies have been notified of an issue or potential problem, The Incident Commander/Plant Management or his designee is responsible for keeping local EMAs informed of any change in conditions.

F. Begin corrective measures to attempt to alleviate or prevent failure.

G. Evaluate the effectiveness of the corrective measures. If the corrective actions are successful, update all personnel/agencies previously contacted of the status of the improved conditions and document relevant communications using the forms provided in Appendix E. At this time, the Incident Commander will end the emergency condition. SCS Fossil Dam Safety will be responsible for preparing the after-action report, which is located in Appendix E.

H. If the corrective measures are not effective, FDS will determine if there is time to take additional corrective measures.

I. If there is not time to take additional corrective measures and failure is imminent, declare an **Imminent Failure (Condition A Emergency)** and proceed to Step J.

J. If there is time to implement additional corrective measures, return to Step E. Additional support can be requested from SCS Civil Field Services or outside contractors, as needed.

K. If an **Imminent Failure (Condition A Emergency)** has been declared by the Incident Commander or their designee, ensure that all personnel have been moved to a safe area and perform notifications per the Response Notification Flowchart (Appendix D). Document all communications using the appropriate forms contained in Appendix E. Once outside agencies have been notified of a problem or potential problem, the Incident Commander or his designee is responsible for keeping local EMAs informed of any change in conditions. FDS will be responsible for preparing the after-action report, which is in Appendix E.

6.2 Additional Considerations

All emergency phone calls should be recorded on the *Emergency Notification Log Sheet* contained in Appendix E.

All other communication shall be documented using the *Data Recording Sheet* located in Appendix E.

After an Imminent Failure (Condition A Emergency) has occurred FDS should complete a Post Incident Report using the form located in Appendix E.

Once an emergency has been declared, a consistent message shall be developed and communicated to personnel on the Response Notification Flowchart.

7.0 RESOURCES AVAILABLE TO SUPPORT EMERGENCY RESPONSE EFFORTS

7.1 Alternative Sources of Power

There are no electrically-powered gates or other equipment used for operating the dam/dike. Power is available at multiple locations near the southern end of the dam and a 5,000 watt emergency generator is available for use, if needed, during emergency operations.

7.2 Emergency Materials and Equipment

Materials
The following materials are stockpiled on site

- #10 washed sand (GDOT 10NS)
- # 89 stone
- # 57 stone
- Rip rap (GDOT Type 3)

These materials are protected by silt fencing or safety fencing and are labeled "**For Emergency Use Only**". Appendix F contains the instructions for how to construct an emergency reverse filter.

Equipment
Equipment necessary to take corrective actions is maintained by plant personnel. This could include, but is not limited, to the following equipment:

- Portable light stands
- Rubber tire loaders
- Tracked heavy equipment
- Skid Steer Loaders
- Dump Trucks

Other equipment such as additional emergency lighting or power can be obtained from both plant inventory and/or from local equipment rental companies.

7.3 Reducing Flows into the Reservoir

Plant process flows are no longer directed to AP-1. The only water that enters AP-1 is precipitation that falls directly into it, and a limited amount of stormwater runoff. Therefore, reduction of flows into the pond is no longer feasible (as it once was when the pond served as a water treatment pond.)

7.4 Lowering Water Level

The ability to lower the water level in AP-1 is limited. A siphon system that discharges to the Recycle Pond can be activated but will only lower the pond level to approximate elevation 492 feet. United Rental should be contacted to mobilize large portable pumps for lowering of the reservoir lower than elevation 492 feet. Portable, diesel pumps with capacities ranging from 7,500 to 15,000 GPM can be mobilized to AP-1 within 48-hours or less of notification. United Rentals

will be contacted as part of support once the EAP is activated. If the EAP has not been activated and emergency lowering is required, the Duty Officer should be contacted to coordinate support.

8.0 PROVISIONS FOR ANNUAL COORDINATION MEETING

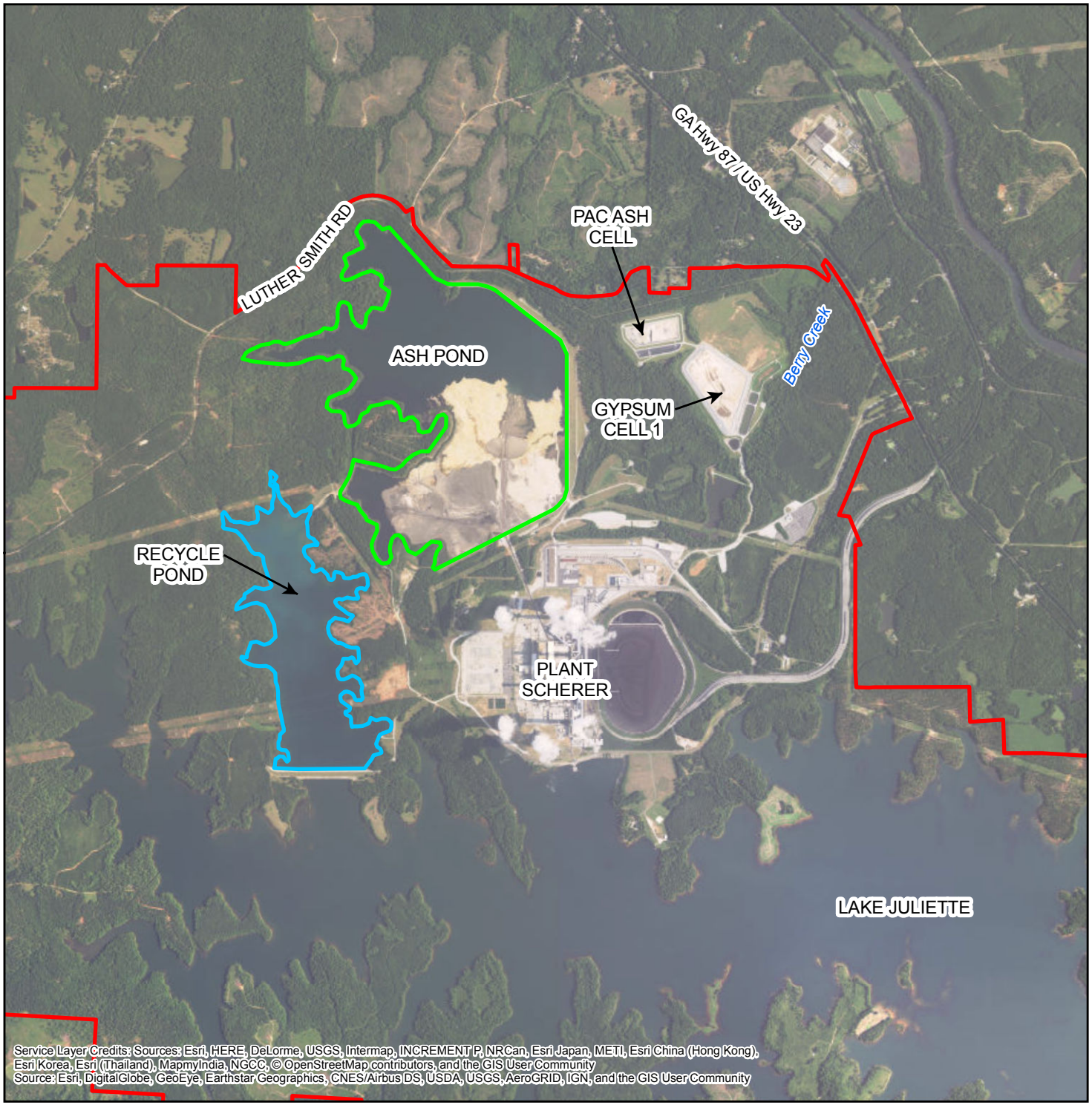
An annual face-to-face meeting will be held with representatives of Plant Scherer, GPC, and the emergency response agencies described in this plan. These emergency response agencies receiving invitations to participate in the annual meeting will include:

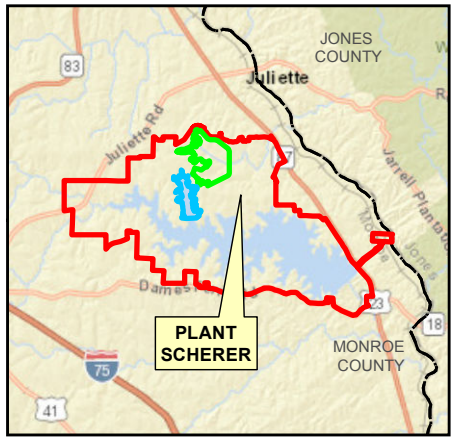
- Monroe County Emergency Management Agency
- Jones County Emergency Management Agency
- Bibb County Emergency Management Agency
- Georgia Environmental Protection Division - Safe Dams Program

The County EMA organizations may, at their discretion, invite other response agencies, such as the sheriff's department, fire department, or GEMA to participate in the annual meeting as well.

APPENDIX A

Plant Scherer Location Map – Figure 1
Ash Pond Overview – Figure 2
Ash Pond Spillway Detail – Figure 3





0 2.5 5
Miles

1 inch = 5 miles

LEGEND

- Ash Pond
- Recycle Pond
- Approximate Plant Boundary

N

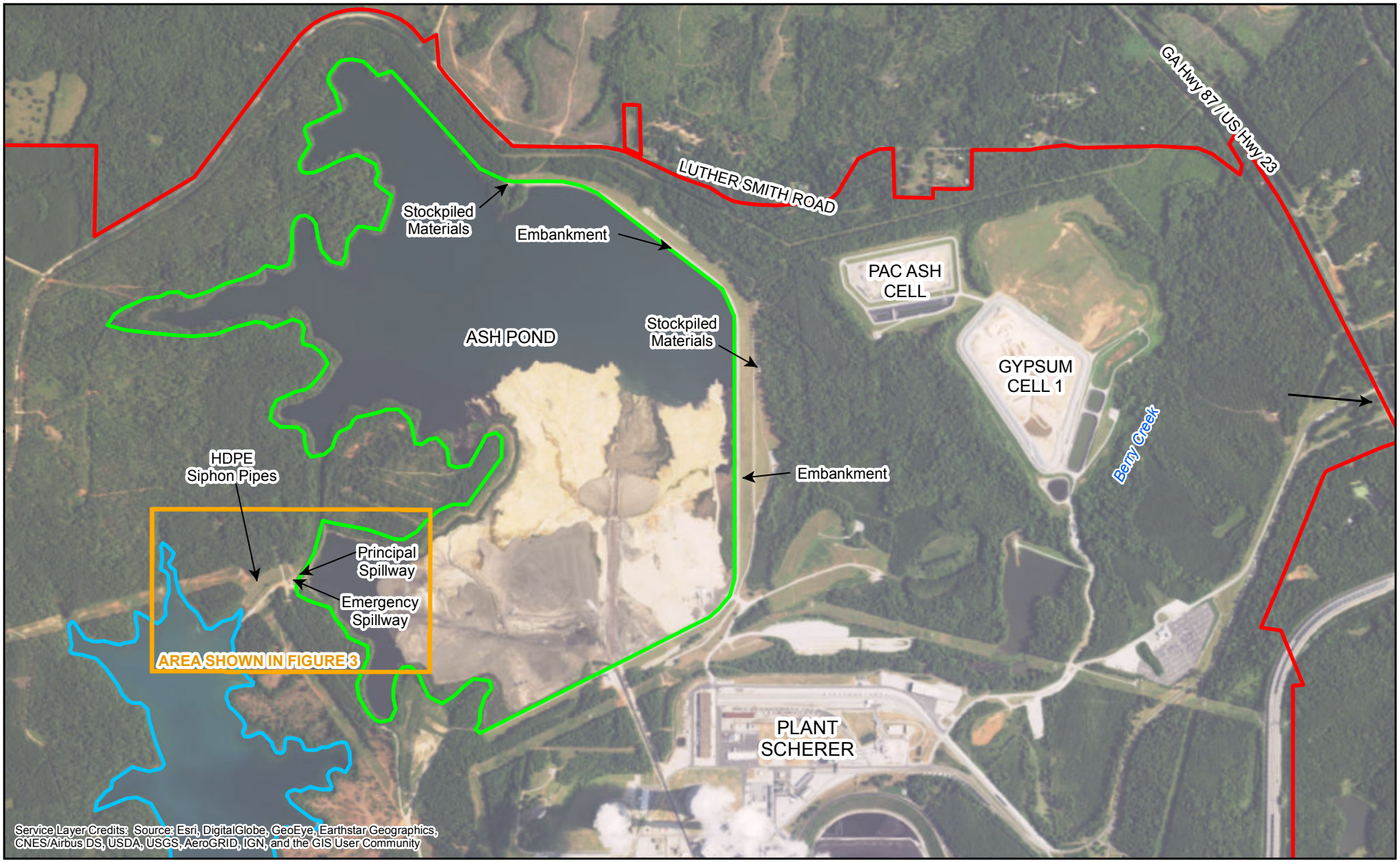
0 0.25 0.5 1
Miles

1 inch = 3,000 feet

FIGURE 1
PLANT SCHERERLOCATION MAP
MONROE COUNTY, GEORGIA

Southern Company Services
FOR

Georgia Power Company



LEGEND

- Approximate Plant Boundary
- Ash Pond Boundary
- Recycle Pond Boundary

N

0 500 1,000 2,000 3,000 Feet

1 inch = 1,500 feet

FIGURE 2
ASH POND OVERVIEW
PLANT SCHERER
MONROE COUNTY, GEORGIA

Southern Company Services
FOR
Georgia Power Company

LEGEND

Approximate Ash Pond Boundary

Approximate Recycle Pond Boundary

N

0 150 300 600

Feet

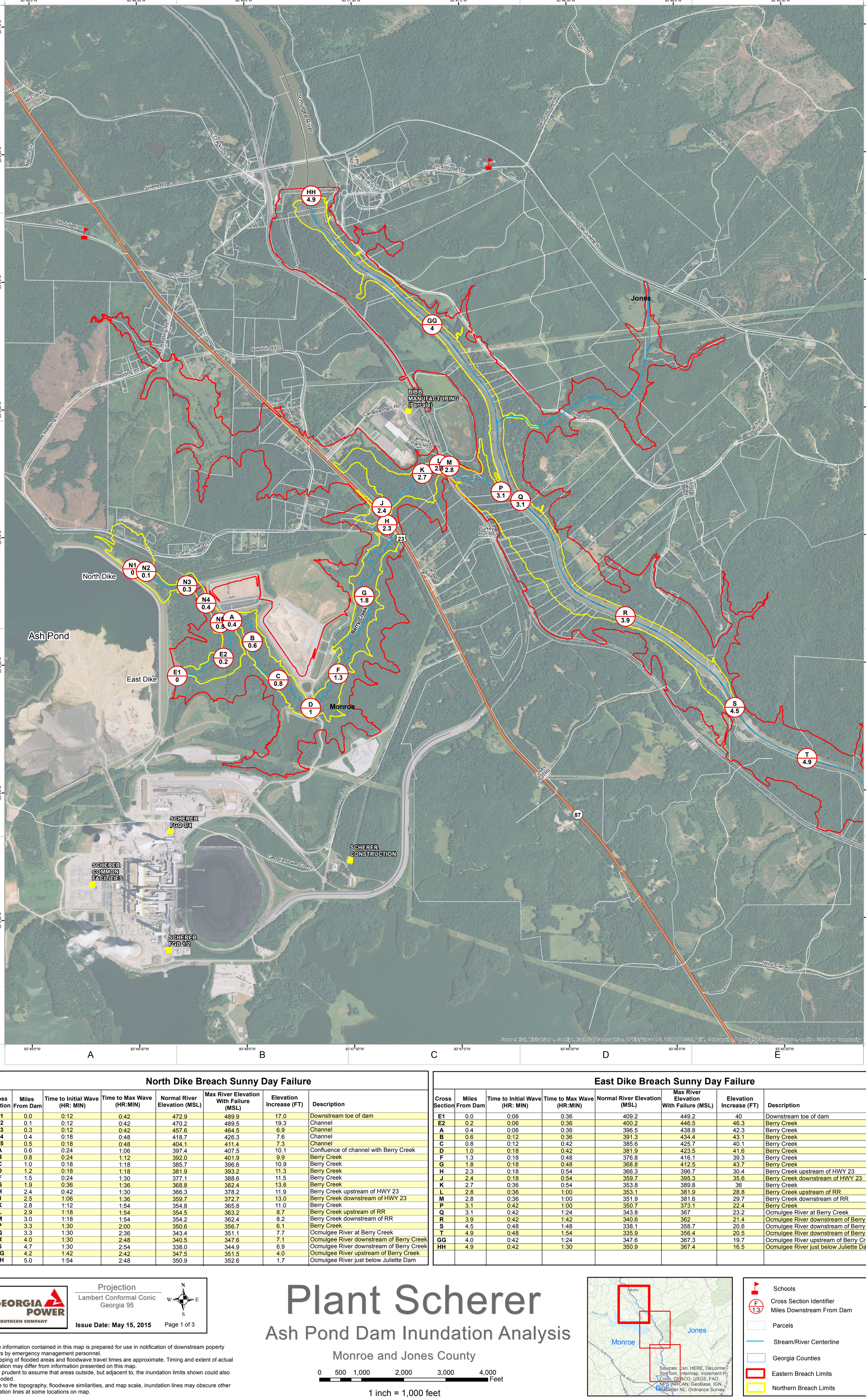
1 inch = 300 feet

FIGURE 3
ASH POND SPILLWAY DETAIL MAP
PLANT SCHERER
MONROE COUNTY, GEORGIA

Southern Company Services
FOR
Georgia Power Company

APPENDIX B

Inundation Maps



North Dike Breach Sunny Day Failure

Cross Section	Miles From Dam	Time to Initial Wave (HR: MIN)	Time to Max Wave (HR:MIN)	Normal River Elevation (MSL)	Max River Elevation With Failure (MSL)	Elevation Increase (FT)	Description
N1	0.0	0:12	0:42	472.9	489.9	17.0	Downstream toe of dam
N2	0.1	0:12	0:42	470.2	489.5	19.3	Channel
N3	0.3	0:12	0:42	457.6	464.5	6.9	Channel
N4	0.4	0:18	0:48	418.7	426.3	7.6	Channel
N5	0.5	0:18	0:48	404.1	411.4	7.3	Channel
A	0.6	0:24	1:06	397.4	407.5	10.1	Confluence of channel with Berry Creek
B	0.8	0:24	1:12	392.0	401.9	9.9	Berry Creek
C	1.0	0:18	1:18	385.7	396.6	10.9	Berry Creek
D	1.2	0:18	1:18	381.9	393.2	11.3	Berry Creek
F	1.5	0:24	1:30	377.1	388.6	11.5	Berry Creek
G	1.9	0:36	1:36	368.8	382.4	13.6	Berry Creek
H	2.4	0:42	1:30	366.3	378.2	11.9	Berry Creek upstream of HWY 23
J	2.5	1:06	1:36	359.7	372.7	13.0	Berry Creek downstream of HWY 23
K	2.8	1:12	1:54	354.8	365.8	11.0	Berry Creek
L	2.9	1:18	1:54	354.5	363.2	8.7	Berry Creek upstream of RR
M	3.0	1:18	1:54	354.2	362.4	8.2	Berry Creek downstream of RR
P	3.3	1:30	2:00	350.6	356.7	6.1	Berry Creek
Q	3.3	1:30	2:36	343.4	351.1	7.7	Ocmulgee River at Berry Creek
R	4.0	1:30	2:48	340.5	347.6	7.1	Ocmulgee River downstream of Berry Creek
S	4.7	1:30	2:54	338.0	344.9	6.9	Ocmulgee River downstream of Berry Creek
GG	4.2	1:42	2:42	347.5	351.5	4.0	Ocmulgee River upstream of Berry Creek
HH	5.0	1:54	2:48	350.9	352.6	1.7	Ocmulgee River just below Juliette Dam

East Dike Breach Sunny Day Failure

Cross Section	Miles From Dam	Time to Initial Wave (HR: MIN)	Time to Max Wave (HR:MIN)	Normal River Elevation (MSL)	Max River Elevation With Failure (MSL)	Elevation Increase (FT)	Description
E1	0.0	0:06	0:36	409.2	449.2	40	Downstream toe of dam
E2	0.2	0:06	0:36	400.2	446.5	46.3	Berry Creek
A	0.4	0:06	0:36	396.5	438.8	42.3	Berry Creek
B	0.6	0:12	0:36	391.3	434.4	43.1	Berry Creek
C	0.8	0:12	0:42	385.6	425.7	40.1	Berry Creek
D	1.0	0:18	0:42	381.9	423.5	41.6	Berry Creek
F	1.3	0:18	0:48	376.8	416.1	39.3	Berry Creek
G	1.8	0:18	0:48	368.8	412.5	43.7	Berry Creek
H	2.3	0:18	0:54	366.3	396.7	30.4	Berry Creek upstream of HWY 23
J	2.4	0:18	0:54	359.7	395.3	35.6	Berry Creek downstream of HWY 23
K	2.7	0:36	0:54	353.8	389.8	36	Berry Creek
L	2.8	0:36	1:00	353.1	381.9	28.8	Berry Creek upstream of RR
M	2.8	0:36	1:00	351.9	381.6	29.7	Berry Creek downstream of RR
P	3.1	0:42	1:00	350.7	373.1	22.4	Berry Creek
Q	3.1	0:42	1:24	343.8	367	23.2	Ocmulgee River at Berry Creek
R	3.9	0:42	1:42	340.6	362	21.4	Ocmulgee River downstream of Berry Creek
S	4.5	0:48	1:48	338.1	358.7	20.6	Ocmulgee River downstream of Berry Creek
T	4.9	0:48	1:54	335.9	356.4	20.5	Ocmulgee River downstream of Berry Creek
GG	4.0	0:42	1:24	347.6	367.3	19.7	Ocmulgee River upstream of Berry Creek
HH	4.9	0:42	1:30	350.9	367.4	16.5	Ocmulgee River just below Juliette Dam

GEORGIA POWER
A SOUTHERN COMPANY

Projection
Lambert Conformal Conic
Georgia 95

Issue Date: May 15, 2015

Note:
1. The information contained in this map is prepared for use in notification of downstream poperty owners by emergency management personnel.
2. Mapping of flooded areas and floodwave travel times are approximate. Timing and extent of actual inundation may differ from information presented on this map.
3. It is prudent to assume that areas outside, but adjacent to, the inundation limits shown could also be flooded.
4. Due to the topography, floodwave similarities, and map scale, inundation lines may obscure other inundation lines at some locations on map.

Plant Scherer

Ash Pond Dam Inundation Analysis

Monroe and Jones County

0 500 1,000 2,000 3,000 4,000 Feet

1 inch = 1,000 feet

- Schools
- Cross Section Identifier (F 1.3) Miles Downstream From Dam
- Parcels
- Stream/River Centerline
- Georgia Counties
- Eastern Breach Limits
- Northern Breach Limits

East Dike Breach Sunny Day Failure

Cross Section	Miles From Dam	Time to Initial Wave (HR: MIN)	Time to Max Wave (HR:MIN)	Normal River Elevation (MSL)	Max River Elevation With Failure (MSL)	Elevation Increase (FT)	Description
S	4.5	0:48	1:48	338.1	358.7	20.6	Ocmulgee River downstream of Berry Creek
T	4.9	0:48	1:54	335.9	356.4	20.5	Ocmulgee River downstream of Berry Creek
U	5.8	0:48	2:06	330.8	350.8	20	Ocmulgee River downstream of Berry Creek
V	6.9	1:00	2:18	326.6	344.9	18.3	Ocmulgee River downstream of Berry Creek
W	7.9	1:12	2:30	324.3	343.1	18.8	Ocmulgee River downstream of Berry Creek
X	9.4	1:24	2:42	321.6	339.2	17.6	Ocmulgee River upstream of Dames Ferry Rd
Y	9.5	1:24	2:42	321.5	339.2	17.7	Ocmulgee River downstream of Dames Ferry Rd
Z	10.1	1:30	2:54	318.5	335.4	16.9	Ocmulgee River downstream of Berry Creek

GEORGIA POWER
A SOUTHERN COMPANY

Projection
Lambert Conformal Conic
Georgia 95

N
W E
S

Issue Date: May 15, 2015

Note:
1. The information contained in this map is prepared for use in notification of downstream poperty owners by emergency management personnel.
2. Mapping of flooded areas and floodwave travel times are approximate. Timing and extent of actual inundation may differ from information presented on this map.
3. It is prudent to assume that areas outside, but adjacent to, the inundation limits shown could also be flooded.
4. Due to the topography, floodwave similarities, and map scale, inundation lines may obscure other inundation lines at some locations on map.

Plant Scherer

Ash Pond Dam Inundation Analysis

Monroe and Jones County

0 500 1,000 2,000 3,000 4,000 Feet

1 inch = 1,000 feet

Schools
F 1.3 Cross Section Identifier / Miles Downstream From Dam
Parcels
Stream/River Centerline
Georgia Counties
Eastern Breach Limits
Northern Breach Limits

East Dike Breach Sunny Day Failure

Cross Section	Miles From Dam	Time to Initial Wave (HR: MIN)	Time to Max Wave (HR:MIN)	Normal River Elevation (MSL)	Max River Elevation With Failure (MSL)	Elevation Increase (FT)	Description
Z	10.1	1:30	2:54	318.5	335.4	16.9	Ocmulgee River downstream of Berry Creek
AA	11.1	1:36	3:12	314.8	330.9	16.1	Ocmulgee River downstream of Berry Creek
BB	12.1	1:48	3:42	311.5	328.4	16.9	Ocmulgee River downstream of Berry Creek
CC	13.2	2:00	3:54	309.5	327.5	17.9	Ocmulgee River downstream of Berry Creek
DD	14.1	2:06	3:54	308.3	326.6	18.3	Ocmulgee River downstream of Berry Creek
FF	14.9	2:12	3:54	307.8	326.3	18.5	Ocmulgee River downstream of Berry Creek

GEORGIA POWER
A SOUTHERN COMPANY

Projection
Lambert Conformal Conic
Georgia 95

N
W E
S

Issue Date: May 15, 2015

Note:
1. The information contained in this map is prepared for use in notification of downstream poperty owners by emergency management personnel.
2. Mapping of flooded areas and floodwave travel times are approximate. Timing and extent of actual inundation may differ from information presented on this map.
3. It is prudent to assume that areas outside, but adjacent to, the inundation limits shown could also be flooded.
4. Due to the topography, floodwave similarities, and map scale, inundation lines may obscure other inundation lines at some locations on map.

Plant Scherer

Ash Pond Dam Inundation Analysis

Monroe and Jones County

0 500 1,000 2,000 3,000 4,000 Feet

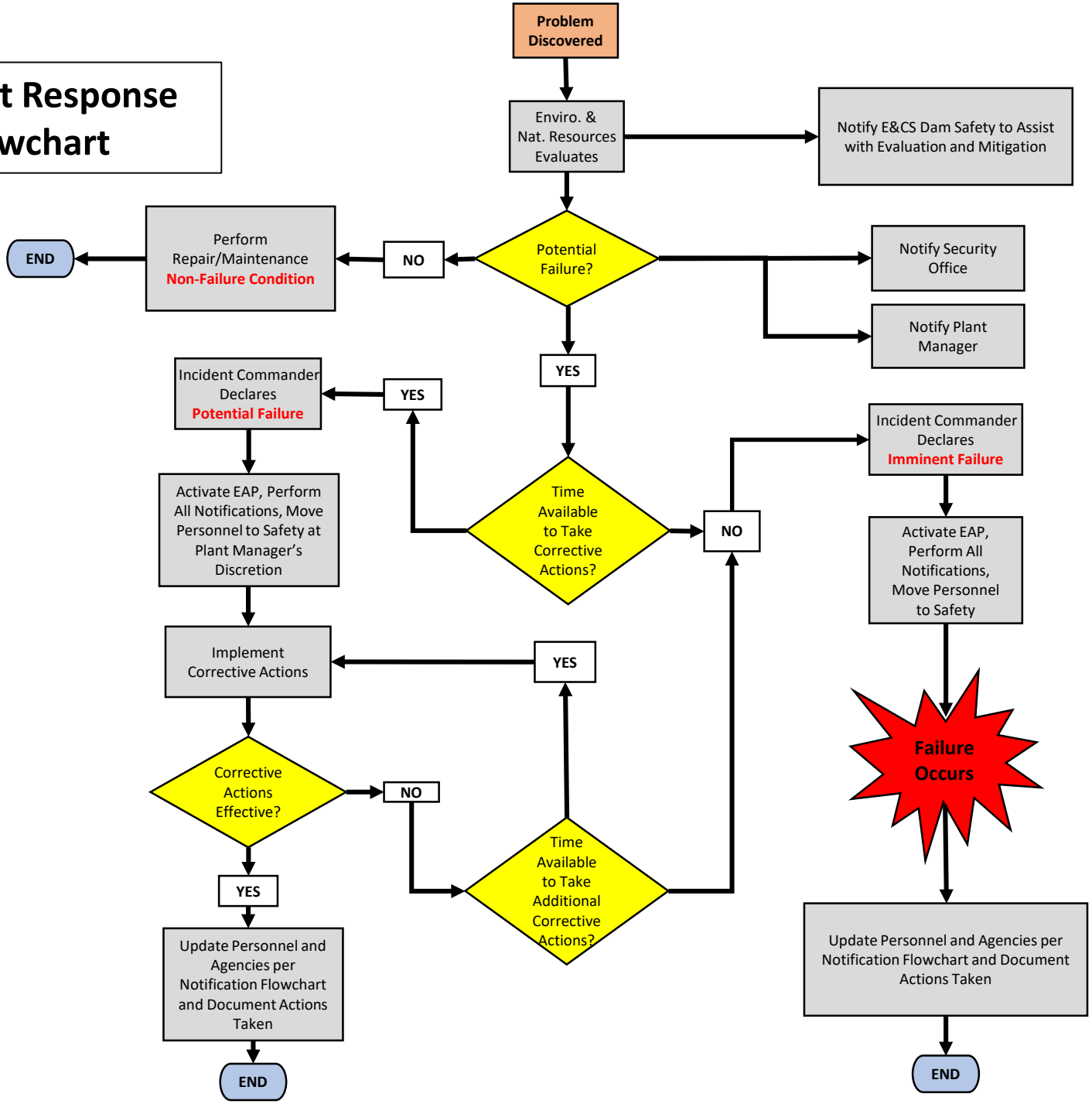
1 inch = 1,000 feet

- Schools
- Cross Section Identifier (F / 1.3) Miles Downstream From Dam
- Parcels
- Stream/River Centerline
- Georgia Counties
- Eastern Breach Limits
- Northern Breach Limits

APPENDIX C

Incident Response Flowchart

Incident Response Flowchart



APPENDIX D

Response Notification Flowchart

Response Notification Flowchart

Imminent Failure or Potential Failure Emergencies

Legend

(1) Denotes Call Sequence

Incident Commander Declares Imminent or Potential Failure Emergency

(2) → **Southern Co. Generation Senior Vice President**

(3) → **GPC Corporate Communications**

(1) → **Plant Scherer Security**

(1) → **Georgia System Operator**

(1) → **National Weather Service**
Peachtree City, GA
(770) 486-1133
Ext 241 or 242

Alternate:
Birmingham, AL
(205) 664-3410

(2) → **Plant Scherer Environmental Compliance**

(1) → **Fossil Dam Safety**

Fossil Dam Safety

Fossil Dam Safety Referral Line (24-Hr)
(205) 992-6601

Fossil Dam Safety

See Next Page for Notifications by Fossil Dam Safety

(2) → **GPC Environmental and Natural Resources (E&NR)**

(1) → **E&NR Civil Support**

(3) → **Monroe County EMA**
Matthew Perry, Director
Office: (478) 994-7004
Cell: (478) 256-9506
Dial 911

(4) → **Jones County EMA**
Don Graham, Director
Office: (478) 986-6672
Cell: (478) 447- 4095

(5) → **Bibb County EMA**
Spencer Hawkins, Director
Office: (478) 832-6300
24-Hour: (478) 751-7500

(1) → **GEMA 24-Hour Line**
(800) 879-4362

Alternate:
(404) 635-7000

Response Notification Flowchart

Imminent Failure or Potential Failure Emergencies

Fossil Dam Safety Notifications

Legend

1 Denotes Call Sequence

Fossil Dam Safety

Fossil Dam Safety Referral Line

(205) 992-6601

1

Hydro Services

2

E&NR Land Dept.

3

GPC Supply Chain Management

4

Georgia EPD
Safe Dams Program

Tom Woosley, P.E.
Office: (404) 651-8488

24-Hour Emergency
(404) 635-7200
(800) 241-4113

APPENDIX E

Emergency Notification Log Sheet
Data Recording Sheet
Post Incident Reporting Form

EMERGENCY ACTION PLAN
DATA RECORDING SHEET

The Data Recording Sheet will be used to record important information relating to dam safety emergency.

Team Member(s): _____

Date of Incident: _____

Time of Incident: _____

Type of Emergency: _____

Incident Commander: _____

Description of Events:* _____

_____

_____

_____

_____

What is Being Done:* _____

_____

_____

_____

_____

*Attach additional pages as necessary.

For incoming questions, refer all calls to:

Media Inquiries:	Georgia Power Company Corporate Communications *See Response Notification Flowchart for phone numbers.*
EMA Inquiries:	Plant Manager/Incident Commander
Environmental Agency Inquiries:	GPC Environmental and Natural Resources

EMERGENCY ACTION PLAN
EMERGENCY NOTIFICATION LOG SHEET

The Emergency Notification Log Sheet is for use in an event of an emergency to document notifications. *Please refer to the Response Notification Flowchart for name and numbers of agencies / personnel to be contacted.* **All notifications must be documented.**

TO BE USED BY PLANT MANAGER / INCIDENT COMMANDER:

Agency Notified	Date	Time	Person Contacted	Contacted By	Comments
Security Office					
SVP / SPO					
GPC Corporate Communications					

TO BE USED BY SECURITY OFFICE:

Agency Notified	Date	Time	Person Contacted	Contacted By	Comments
Environmental Compliance					
Georgia System Operator					
Monroe County EMA					
Jones County EMA					
Bibb County EMA					

TO BE USED BY ENVIRONMENTAL COMPLIANCE:

Agency Notified	Date	Time	Person Contacted	Contacted By	Comments
Fossil Dam Safety					
GPC Enviro. & Natural Resources					

EMERGENCY ACTION PLAN
EMERGENCY NOTIFICATION LOG SHEET

The Emergency Notification Log Sheet is for use in an event of an emergency to document notifications. *Please refer to the Response Notification Flowchart for name and numbers of agencies / personnel to be contacted.* **All notifications must be documented.**

TO BE USED BY GEORGIA SYSTEM OPERATOR:

Agency Notified	Date	Time	Person Contacted	Contacted By	Comments
National Weather Service					

TO BE USED BY GPC ENVIRONMENTAL AFFAIRS:

Agency Notified	Date	Time	Person Contacted	Contacted By	Comments
Civil Support					

TO BE USED BY FOSSIL DAM SAFETY:

Agency Notified	Date	Time	Person Contacted	Contacted By	Comments
Hydro Services					
GPC E&NR Land Department					
Supply Chain Management					
GA Safe Dams Program					

Notes:

EMERGENCY ACTION PLAN
POST INCIDENT REPORTING FORM

National Inventory of Dams (NID) No.: GA07217 State ID No.: 102-032-0436

Dam location: Juliette, Georgia (City) Monroe (County)

Date: _____Time:_____

Weather conditions: _____

General description of emergency situation:

_____

_____

Area(s) of dam affected (attach sketch/drawing):

_____

_____

Extent of dam damage: _____

Possible cause(s): _____

Effect on dam's operation: _____

Initial reservoir elevation: _____ Time: _____

Maximum reservoir elevation: _____ Time: _____

Final reservoir elevation: _____ Time: _____

Description of area flooded downstream/damages/injuries/loss of life: _____

_____

_____

Other data and comments:

_____

_____

_____

Observer's name and telephone number:

_____

Report prepared by: _____ Date: _____

APPENDIX F

Instructions for the Construction of an Emergency Reverse Filter

EMERGENCY REVERSE FILTER CONSTRUCTION

The purpose of the reverse filter is to slow down the flow of water in order to reduce the ability of the water to carry soil particles. The size of the soil particle that a flow of water can carry is a function of the 3rd power of the velocity of the flow. The slower the velocity, the less soil the water can carry. The other function of the filter is to trap soil particles before they exit.

The usual components of a reverse filter are as follows:

- GDOT washed #10 sand (10NS)
- # 89 stone
- # 57 stone
- GDOT Type 3 rip rap

These materials should be stockpiled in a location where they can easily and quickly be moved to the seepage site. Two truckloads of each type of material should be stored in a convenient location that is out of the way. It is best if they are located so that a backhoe or front end loader can pick them up and transfer them directly to the seepage site. Transport schemes that require multiple vehicles and multiple operators are usually impossible to implement at night or on weekends. The stockpiles should be labeled "Granular Filter Stockpile – Emergency Use Only" to keep them from being appropriated for other purposes by those unaware of their purpose.

To build a reverse filter over a boil or area of concentrated seepage, follow the directions below. A cross section of the reverse filter construction is provided on the next page.

1) Clear loose material from around the site.

2) Place 6" of #10 washed sand over the area of concern, and extend it for at least 12" beyond the seepage limits.

3) Place 6" of #89 stone over the sand, and extend it for at least 6" beyond the sand.

4) Place 6" of #57 stone over the sand, and extend it for at least 6" beyond the #89 stone.

5) If necessary to stabilize the #57 stone, place rip rap on top of the #57 stone. Conditions that may make the rip rap necessary are anticipated surface flows that might wash away the filter or increasing seepage flows that may try to shift the lighter filter materials.

If the flow is too fast for the sand to remain in place, a layer of #57 stone or GDOT Type 3 rip rap may be placed over the boil to slow the flow down. This is followed by a layer of #89 stone, then the sand, and then the #89, #57 and rip rap in succession.

Sometimes a seep will pop out on the edge of a newly applied filter. In this case, it is generally necessary to apply the granular filter as a blanket to the general area rather than as a spot treatment. The layers are as described above but will cover a larger area.

Filter fabric or geotextile is not acceptable as a substitute for the sand. The fabric tends to smear and clog if applied in a wet situation.

CROSS SECTION OF A REVERSE FILTER OVER A SEEP OR BOIL