

EMERGENCY ACTION PLAN

FOR

YESTERDAY'S SOUTH LAKE DAM

STATE ID MS00067

TATE COUNTY, MISSISSIPPI

Access to the Dam during Emergencies:

Primary access to the site is via the south portions of Waverly Road and Waverly Circle.

Prepared by:
Friend of the Lake, LLC.
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135 Waverly Road
Senatobia, MS 38668
662.562.7879

REVISION HISTORY

Date	Revision	Notes
03/14/2014	Draft	Submitted to MDEQ for review
06/25/2014	1	Submitted to MDEQ with requested revisions for approval
09/11/2014	2	Revised inundation map & evacuation list per MDEQ
06/23/2020	3	Revised: Page 2 Revision History Page 4 Impacted Residences Page 7 Add Consulting Engineer, Update Medical Services & Owners List Page 9, 11 Add Consulting Engineer
03/27/2023	4	Revised: Page 2 Revision History Page 4 Impacted Residences Page 7 Update Owners List

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INUNDATION MAP



NEWS RELEASE:

The owners of Yesterday’s South Lake Dam have announced that it is in imminent danger of failure. The dam is located in the center of Yesterday’s South Subdivision between Waverly Road and Waverly Circle outside the Senatobia city limits in Tate County, Mississippi. The areas which will be affected are the North portion of Waverly Road, the North portion of Waverly Circle and Temple Cove. Residents along these streets should evacuate to high ground immediately.

ROADS TO BE CLOSED:

North portion of Waverly Road, the North portion of Waverly Circle and Temple Cove

RESIDENCES IMPACTED:

RESIDENCES TO BE EVACUATED	RESIDENCES TO BE IMPACTED
Wooten, Tyler J. & Chelsia 148 Waverly Road Senatobia, MS 38668 601.260.0142	White, Michael and Mel 144 Waverly Road Senatobia, MS 38668 901.262.0593
Pinkston, Thomas & Stacey 174 Waverly Road Senatobia, MS 38668 662.689.0197 662.689.0758	Parker, Dane 162 Waverly Road Senatobia, MS 38668 901.550.1568
	Brinkman, Greg 166 Waverly Road Senatobia, MS 38668 662.560.5996
	Williams, Sam and Jennifer 170 Waverly Road Senatobia, MS 38668 662.560.4305
	McCluskey, Sonny and Cheryl 100 Temple Cove Senatobia, MS 38668 901.486.2591
	Banks, William and Simpson, Courtney 103 Temple Cove Senatobia, MS 38668 901.570.4246
	Scola, Anthony 146 Waverly Circle Senatobia, MS 38668 901.413.9770

I. EMERGENCY DETECTION, EVALUATION AND CLASSIFICATION

Upon discovery of a problem at a dam, the dam owner and/or on-site personnel should decide which category the emergency situation falls under. **If there is any uncertainty about the classification of the emergency, the situation should be classified as a Warning, unless there is an uncontrolled release of water which would constitute an Emergency.** The four dam emergency classification types are outlined below:

- **Emergency:** Uncontrolled Release of Water
- **Warning:** Failure Could Happen at Any Time
- **Watch:** Potential for Failure Exists
- **Advisory:** Conditions that could lead to a failure situation have occurred

These conditions are further defined in the following sections.

Emergency – Uncontrolled Release of Water

The dam is failing and there is an uncontrolled release of water.

On-Site Personnel Plan of Action

Move a safe distance away from the dam and call the following people and explain to them that the dam is failing and downstream residents should be evacuated immediately:

- a. 911
- b. County Emergency Manager (662.562.5012). The county emergency manager should notify the National Weather Service Memphis District (901.544.0401) to issue a Flash Flood Warning. In the case of dams with large populations at risk, the NWS may issue a Flash Flood Emergency.
- c. Downstream Residents to be evacuated as shown on page 4 of this plan.

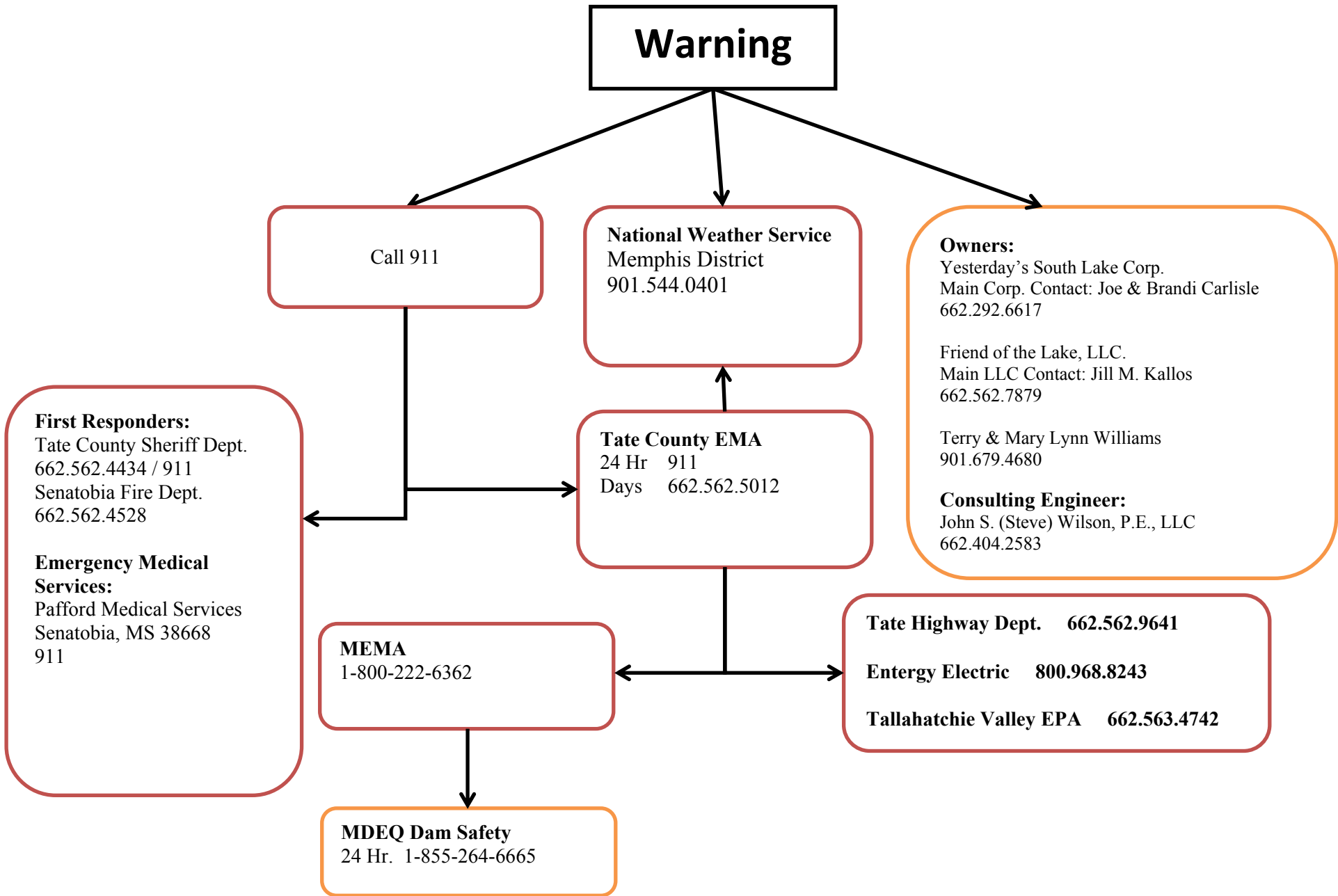
Warning – Failure Could Happen at Any Time

Common warning signs are:

- a. whirlpool developing in the lake near the dam
- b. a major slide of material in either face of the dam that reaches the top of the slope or extends into the crest of the dam
- c. overtopping

On-Site Personnel Plan of Action

- 1) Make the necessary phone calls as shown in the flowchart on Page 7. During the calls do the following:
 - a. Explain that the dam could fail at any time.
 - b. State you are classifying this as an imminent failure. In this case, a Flash Flood Warning should be issued by the National Weather Service. If needed, relay the News Release on Page 4 of this plan.
 - c. Refer them to the inundation map and downstream contact list for this EAP to determine which area should be evacuated.
 - d. Give them the name and number of someone who can be called back for any follow-up questions.
- 2) If possible, notify anyone in the nearby vicinity of the dam to evacuate and move back a safe distance from the dam and inundation area.



Watch - Potential for Failure Exists

Common warning signs are:

- a. seepage found that increases in flow or new seepage points develop while situation is being monitored
- b. sand boils (water exiting the ground surface with enough velocity to cause the soil/water mixture to appear to be boiling) that develop downstream of the dam, note that a boil that steadily increases in diameter or appears to boiling more vigorously because of rapidly increasing flow would move the situation from a Watch to an Emergency
- c. piping (a concentrated flow of water with sufficient velocity to transport soil particles – generally indicated by an identifiable hole, or “pipe”, surrounded by a cone of soil) note that an increase in the diameter of the “pipe” or rapidly increasing flow would move the situation from a Watch to an Emergency
- d. slides of material that only affect the face of the dam and have not affected or progressed into or under the crest of the dam, or gullies forming in the face of the dam sinkholes found in the dam
- e. Water levels nearing the top of the dam and steadily increasing. This includes activation of the emergency spillway if downstream residents could be flooded.

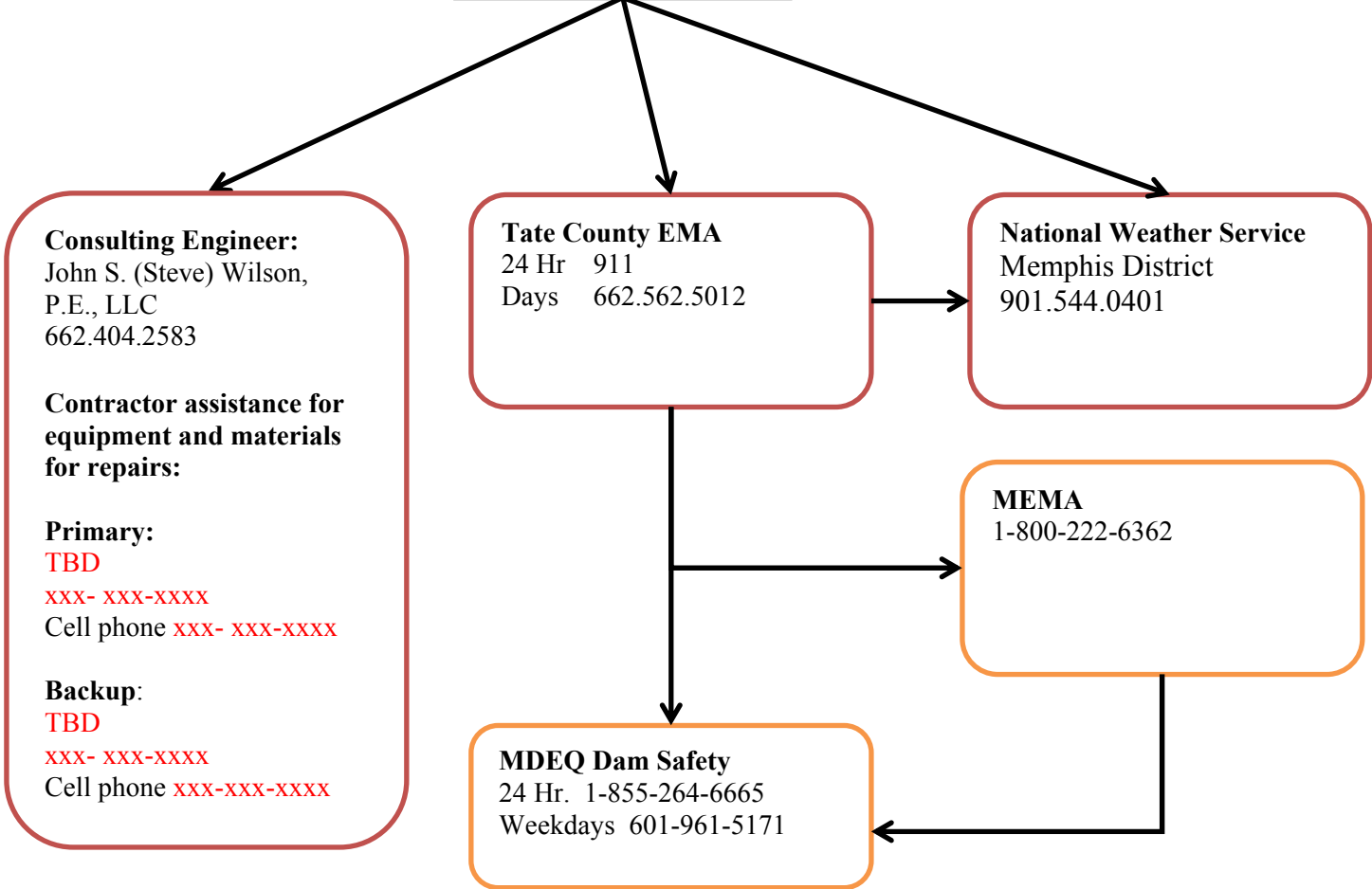
NOTE: Discovery of a sand boil or evidence of piping in the dam face or in the vicinity of the toe of the dam should cause the observer to immediately expand the area of surveillance to include all areas, particularly areas that are at a lower elevation than the observed problem, within 200 to 250 feet of the downstream toe of the dam. Also, if an earthquake occurs and registers more than 6.0 in the general area of the state where your dam is located then the dam should be inspected as soon as possible and the lake level drawn down 1/3 to 1/2 of the greatest depth of the lake until an engineer can inspect the dam for damage.

On-Site Personnel Plan of Action

- 1) Make the necessary phone calls as shown in the flowchart on Page 9. During the calls do the following:
 - a. Explain the problems with the dam.
 - b. State you are classifying this as a potential failure. In this case, a Flash Flood Watch should be issued by the National Weather Service. If needed, relay the News Release on Page 4 of this plan.
 - c. Refer them to the inundation map and downstream contact list for this EAP to determine which area should be notified of the potential need for evacuation. In some cases, the County EMA may wish to issue a voluntary evacuation notice.
 - d. Give them the name and number of someone who can be called back for any follow-up questions.
- 2) Work with the Consulting Engineer, Contractor, and MDEQ Dam Safety to try and prevent failure of the dam.

Note: At any point if conditions worsen at the dam, this emergency should immediately be re-classified as a Warning. On-Site personnel should dial 911 and notify the National Weather Service to issue a Flash Flood Warning.

Watch



Advisory – Conditions that could Lead to a Failure Have Occurred

Some conditions that could lead to a failure:

- a. Seepage that has recently developed.
- b. Excessive rainfall that may exceed the capacity of the spillways. Yesterday's South Lake Dam should be monitored when rainfall amounts exceed 5 inches in 24 hours.

On-Site Personnel Plan of Action

- 1) Make the necessary phone calls as shown in the flowchart on Page 11. During the calls do the following:
 - a. Explain the problems with the dam. If this advisory is due to excessive rainfall, you should also contact the National Weather Service at 901.544.0401.
 - b. Give them the name and number of someone who can be called back for any follow-up questions.
- 2) Work with the consulting engineer and MDEQ Dam Safety to determine a path forward.

Note: If water levels are rapidly rising due to a storm event that is expected to exceed the capacity of the spillways, this emergency should immediately be re-classified as a Warning and the steps shown under the Warning section of this EAP should be implemented. If seepage is increasing in flow or new seepage points are developing, this emergency should be re-classified as a Watch and the steps shown under the Watch section of this EAP should be implemented.

Advisory

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graph TD; A[Advisory] --> B[Consulting Engineer: John S. (Steve) Wilson, P.E., LLC 662.404.2583]; A --> C[MDEQ Dam Safety 24 Hr. 1-855-264-6665 Weekdays 601-961-5171]; C --> D[Tate County EMA 24 Hr 911 Days 662.562.5012]; C --> E[National Weather Service Memphis District 901.544.0401];
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Consulting Engineer:
John S. (Steve) Wilson, P.E., LLC
662.404.2583

MDEQ Dam Safety
24 Hr. 1-855-264-6665
Weekdays 601-961-5171

Tate County EMA
24 Hr 911
Days 662.562.5012

National Weather Service
Memphis District
901.544.0401

II. LOCATION AND DESCRIPTION OF DAM AND OUTLET WORKS

Yesterday's South Lake Dam is located in the city of Senatobia, Tate County, Mississippi. The dam owners are Yesterday's South Lake Corp., Friend of the Lake, LLC and Greg & Michelle Crigler (hereafter referred to as "the owners"). The primary function of the lake is recreation (row boats and trolling motors only) for member residents of Yesterday's South Subdivision. The dam was constructed in 2004. It is uncertain the dam and lake characteristics were determined by topographic and field surveys or whether plans existed.

The principal spillway is located to the right of the dam. The principal spillway consists of a lower shoreline, but no constructed official spillway. There is no emergency spillway. There is no lake drain.

III. DAM BREACH ANALYSIS

For the dam break analysis, the computer model Simplified Dam Break (SMPDBK) was used.

The program which was created by the National Weather Service in 1983 uses simplified methods to route a dam break flood wave downstream and computes the peak discharge, peak elevation, and travel time.

The top-of-dam elevation was used for the water-surface elevation at the beginning of the dam failure and the channel was modeled as dry prior to the failure (a "Sunny Day" breach with the Water Surface Elevation at the top of the dam). The breach dimensions were computed using the Froehlich (1995) Equations.

The results of the downstream flood routing were used to establish the limits and plot the inundated areas for emergency conditions associated with the dam break discharge. The breach inundation map included in this report depicts the area which would be flooded should the hypothetical emergency occur. Shown below is a list of the input/output from the model:

TYPE OF DAM (IDAM)	EARTH	
DAM BREACH ELEVATION (HDE)	315.00 FT	
FINAL BREACH ELEVATION (BME)	290.00 FT	
VOLUME OF RESERVOIR (VOL)	228. ACRE-FT	
SURFACE AREA OF RESERVOIR (SA)	18.24 ACRES	*
FINAL BREACH WIDTH (BW)	67.00 FT	
TIME OF DAM FAILURE (TFM)	20.00 MINUTES	
NON-BREACH FLOW (QO)	0.00 CFS	
DISTANCE TO PRIMARY PT OF INTEREST (DISTTN)	0.03 MILES	
DEAD STORAGE EQUIV. MANN. N (CMS)	0.40	

RVR MILE FROM DAM	MAX FLOW (CFS)	MAX ELEV (FT-MSL)	MAX DEPTH (FT)	TIME (HR) MAX DEPTH	TIME (HR) FLOOD	TIME (HR) DEFLOOD	FLOOD DEPTH (FT)
*****	*****	*****	*****	*****	*****	*****	*****
0.03	12929.	296.14	10.32	0.33	0.00	0.43	2.00
0.20	10351.	286.18	8.32	0.39	0.07	0.58	2.00
0.28	10248.	279.15	8.85	0.40	0.08	0.60	2.00
0.40	10145.	269.48	18.72	0.42	0.08	0.63	2.00
0.54	10044.	267.13	20.17	0.45	0.12	0.66	2.00

IV. GENERAL RESPONSIBILITIES UNDER THE PLAN

A. Dam Owners/On-Site Personnel Responsibilities

Upon notification or discovery of the potential for an emergency situation, the dam owners and/or On-Site Personnel should take the appropriate action as outlined in the Emergency Detection, Evaluation, and Classification section of this plan.

B. Responsibility for Evacuation

Warning and evacuation planning are the responsibilities of local authorities who have the statutory obligation. Dam owners should not assume, or usurp, the responsibility of government entities for evacuation of people. However, there may be situations in which routine notification and evacuation will not suffice, as in the case of a resident located just downstream of the dam. In this case, the dam owners should arrange to notify that person directly. This procedure should be coordinated with the appropriate public officials before an emergency situation develops.

C. Responsibility for Duration, Security, Termination, and Follow-Up

The county EMA should perform on-site monitoring of the situation at the dam and keeping local authorities informed of developing conditions at the dam from the time he arrives on site until the emergency has been terminated. The state dam safety program, in consultation with the county EMA, is responsible for declaring that the emergency at the dam is terminated. Following that declaration, the county EMA is responsible for termination of the disaster response activities.

D. Exercising and Review of the EAP

A review of the adequacy of the EAP shall be conducted annually. Any comments from the evaluation will be used to update the EAP. The EAP should be updated promptly after each change in involved personnel or their telephone numbers, or after completion of a scheduled exercise. The EAP should be exercised annually.

APPENDIX:
APPROVALS AND ACCEPTANCE OF THE EAP

LIST OF EAP HOLDERS

DATE: _____

By my signature below, I certify that I have a copy of the EAP and I understand my role, or the role of my agency, in implementing the Emergency Action Plan if the need arises.

COPY #	EAP HOLDER	SIGNATURE
1a.	Yesterday's South Lake Corp.– Dam Owner	_____
1b.	Friend of the Lake, LLC.– Dam Owner	_____
1c.	Terry and Lynn Williams – Dam Owner	_____
2.	Kim Brownlee, Tate County EMA	_____
3.	MDEQ, OLWR, Dam Safety Division	_____
4.	Tate County Sheriffs Department	_____
5.	Senatobia Fire Department	_____
6.	John S. (Steve) Wilson, P.E., LLC	_____
7.	National Weather Service – (Memphis Office)	_____
8.	Tate County 911 Call Center	_____

----- Original Signature sheet on file with master copy -----

SIGNATURES OF AGREEMENT

We, the undersigned, on the date indicated, have reviewed the requested support activity in the Emergency Action for Yesterday's South Lake Dam. Our support action will be executed in accordance with existing standard operating procedures and/or municipal or county emergency operation plans.

Kim Brownlee, Tate County EMA

Date

Tate County 911Call Center

Date

----- Original Signature sheet on file with master copy -----

APPROVAL OF THE EAP

The Emergency Action Plan for Yesterday's South Lake Dam,(MS00067) is hereby approved.

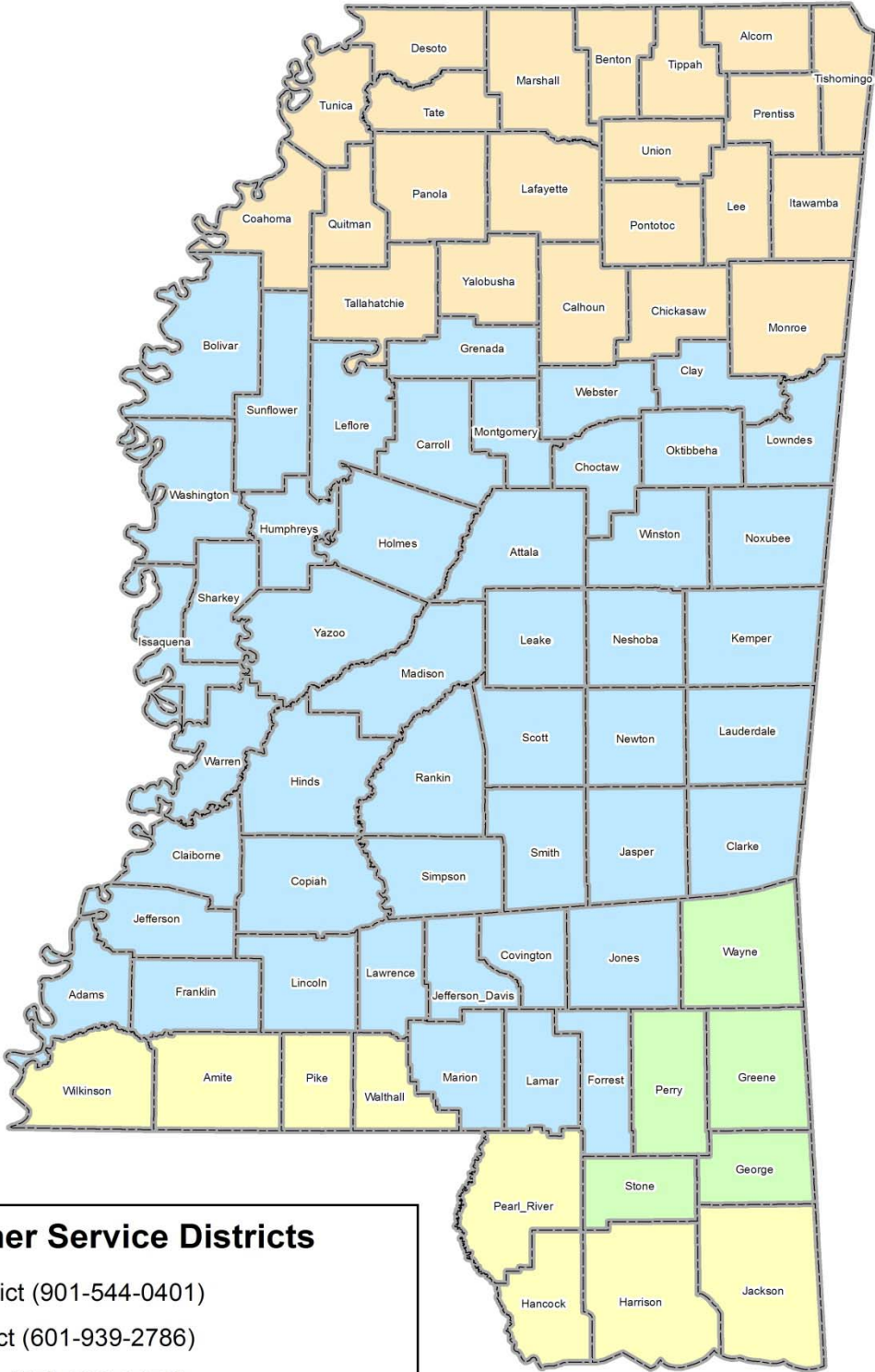
Dam Safety Division
Mississippi Department of Environmental Quality

Date

----- Original Signature sheet on file with master copy -----

National Weather Service Districts

(TO BE REMOVED FROM FINAL EAP)



National Weather Service Districts

- Memphis District (901-544-0401)
- Jackson District (601-939-2786)
- Mobile District (251-633-2471)
- New Orleans/Baton Rouge District (985-649-0429)