

**APPLICATION
FOR PORTIONS OF THE
SPARTA GROUNDWATER AQUIFER
TO BE DECLARED A
CRITICAL GROUNDWATER AREA**

**SUBMITTED TO THE
LOUISIANA GROUNDWATER MANAGEMENT COMMISSION**

Pursuant to the provisions of the Louisiana Administrative Procedure Act, Title 49, Sections 953 (B)(1) and (2), 954(B)(2), as amended, on May 18, 2002, and according to Part XIII. Water Management and Control, Subpart 2. Groundwater Management, Chapter 33. Application Procedure, Section 3305 and Section 3307, the Sparta Groundwater Conservation District Commission does hereby file this Application for portions of the Sparta aquifer to be declared a Critical Groundwater Area.

Section 3305: Application

This application includes:

1. the name, address, telephone number, and signature of applicant;

Sparta Groundwater Conservation District Commission
P. O. Box 979
Ruston, LA 71270-0979
318-251-5150

Richard I. Durrett, Chairman
July 25, 2002 (Revised August 15, 2002)

2. a statement identifying the applicant's interest which is or may be affected by the subject matter of the application;

The Goal of the Sparta Groundwater Conservation District Commission (Sparta Commission) is to save and restore the Sparta aquifer for long-term future use as a major water supply source for domestic, industrial, and agricultural use.

3. identification of the source of ground water (aquifer) to which the application applies;

Sparta aquifer

4. identification of the proposed critical ground water area, including its location (section, township, range and parish) and U.S. Geological Survey topographic map of appropriate scale (1:24,000, 1:62,500, 1:100,000), or LA -DOTD Louisiana parish map

outlining the perimeter of the area. Submittal of digital data is recommended. Digital map data in vector and/or raster formats should have supporting metadata;

The Sparta Groundwater Conservation District Commission voted to recommend to the Louisiana Groundwater Management Commission that the following Parishes and noted area be declared a Critical Groundwater Area. The attached map indicates the Critical Groundwater Area by Parishes, Sections, Townships, and Ranges.

All of CLAIBORNE PARISH; UNION PARISH; LINCOLN PARISH; JACKSON PARISH; OUACHITA PARISH;

WEBSTER PARISH (ALL EXCEPT in T17N R10W only Sections 1,2,3,10,11,12,13,14,15);

and the portions of CADDO PARISH located in T23N R14W; T22N R14W; T23N R15W; T22N R15W; T23N R16W Sections 1,2,3,10,11,12,13,14,15;

BOSSIER PARISH located in T23N R11W; T24N R11W; T22N R11W; T21N R11W; T23N R12W; T24N R12W; T22N R12W; T21N R12W; T23N R13W; T24N R13W; T22N R13W; T21N R13W; T23N R14W; T24N R14W; T22N R14W; T20N R11W; T19N R11W; T20N R12W;

BIENVILLE PARISH located in T14N R4W; T15N R4W; T16N R4W; T17N R4W; T14N R5W; T15N R5W; T16N R5W; T17N R5W; T14N R6W; T15N R6W; T16N R6W; T17N R6W; T14N R7W; T15N R7W; T16N R7W; T17N R7W; T15N R8W Sections 1,2,3,10,11,12,13,14,15,22,23,24,25, 26,27,34,35,36; T16N R8W; T17N R8W; T18N R5W; T18N R8W; T18N R6W; T18N R7W;

CALDWELL PARISH located in T14N R2E; T15N R2E; T14N R3E Sections 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18; T15N R3E;

WINN PARISH located in T10N R5W; T11N R4W; T12N R4W; T13N R4W; T11N R5W; T12N R5W; T13N R5W;

NATCHITOCHE PARISH located in T10N R6W Sections 1,2,3,10,11,12,13,14,15; T11N R5W; T12N R5W; T13N R5W; T11N R6W; T12N R6W; T13N R6W; T13N R7W Sections 1,2,3,10,11,12,13,14,15,22,23,24,25,26,27, 34,35,36.

- 5. statement of facts and evidence supporting the application, pursuant to §3307, and a statement on how no action would likely impact ground water resources in the area subject to request.***

The Sparta Groundwater Conservation District Commission's Project Committee made a thorough study of available information and presented recommendations to the full Sparta Commission for consideration and possible adoption. The Project Committee reviewed several maps and written documentation received from the engineering firm of Meyer Meyer LaCroix and Hixson, Inc., which conducted the engineering study on the Sparta aquifer for the Sparta Commission, and URS, which conducted the modeling portion of the study as a sub-contractor to Meyer Meyer LaCroix and Hixson, Inc. A copy of the final report is attached.

6. *the original published page from the official parish journal evidencing publication of Notice of Intent to apply to the Ground Water Management Commission.*

Attached is the original publication page from the official Parish journals/newspapers evidencing publication in each affected Parish of the Notice of Intent to file an Application to the Louisiana Groundwater Management Commission to declare portions of the Sparta aquifer as a Critical Groundwater Area.

Section 3307: Criteria for a Critical Ground Water Designation

A. Application for designation of a critical ground water area or potential critical ground water area must contain a statement of facts and supporting evidence substantiating that at least one of the following criteria applies to the source of ground water (aquifer) within such proposed area:

1. water levels in the source of ground water show declines that will render such source inadequate for current or immediate future demands without some action being taken, and/or

The Project Committee considered three alternatives for designation of a Critical Groundwater Area; namely, (1) those areas where the drawdown exceeds one-foot per year, (2) those areas where the water surface has dropped below the top of the Sparta aquifer, and (3) those areas where salt water intrusion is becoming a problem. A map is attached showing the area where water surface has dropped below the top of the Sparta aquifer and where the drawdown exceeds one-foot per year. The one-foot per year drawdown alternative was a recognition that continued present pumping and the possibility of new wells would continue to exacerbate the existing adverse situation. Considering those areas where the water surface is below the top of the aquifer is recognition that to allow this to continue violates the long-range goal of saving and restoring the Sparta aquifer for long-term future use as a major water supply source. The salt water intrusion consideration recognizes that a moving salt water interface from East to West will materially affect water quality in the Sparta (see Chapter III, pages 11-14, of the MML&H Study).

2. concentrations of chlorides, total dissolved solids (TDS) or other impurities that will render the source of ground water unsuitable for domestic use have shown annual increases that will render such source unsuitable for current or immediate future demands without some action being taken and/or

Salt water intrusion will be used in the future for expanding the Critical Groundwater Area at such time as the salt water intrusion is more clearly defined. An on-going U. S. Geological Survey study is underway to more accurately establish the salt water intrusion boundary.

3. overall withdrawals annually have exceeded the recharge of the source of ground water that will render the source inadequate for current or immediate future demands without some action being taken.

The MML&H study shows that the water use from the Sparta aquifer, now approximately 70 MGD, must be reduced to 52 MGD, a reduction of 18 MGD, to sustain the aquifer for long term use. The modeling done in the study indicates the results on the aquifer over the next 25 years. (see study)

B. Applicant shall also submit recommendations regarding the critical ground water area including but not be limited to the following:

1. the designation of the critical ground water area boundaries

The attached map indicates the Critical Groundwater Area by Parishes, Sections, Townships, and Ranges.

All of **CLAIBORNE PARISH; UNION PARISH; LINCOLN PARISH; JACKSON PARISH; OUACHITA PARISH;**

WEBSTER PARISH (ALL EXCEPT in T17N R10W only Sections 1,2,3,10,11,12,13,14,15);

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BOSSIER PARISH located in T23N R11W; T24N R11W; T22N R11W; T21N R11W; T23N R12W; T24N R12W; T22N R12W; T21N R12W; T23N R13W; T24N R13W; T22N R13W; T21N R13W; T23N R14W; T24N R14W; T22N R14W; T20N R11W; T19N R11W; T20N R12W;

BIENVILLE PARISH located in T14N R4W; T15N R4W; T16N R4W; T17N R4W; T14N R5W; T15N R5W; T16N R5W; T17N R5W; T14N R6W; T15N R6W; T16N R6W; T17N R6W; T14N R7W; T15N R7W; T16N R7W; T17N R7W; T15N R8W Sections 1,2,3,10,11,12,13,14,15,22,23,24,25, 26,27,34,35,36; T16N R8W; T17N R8W; T18N R5W; T18N R8W; T18N R6W; T18N R7W;

CALDWELL PARISH located in T14N R2E; T15N R2E; T14N R3E Sections 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18; T15N R3E;

WINN PARISH located in T10N R5W; T11N R4W; T12N R4W; T13N R4W; T11N R5W; T12N R5W; T13N R5W;

NATCHITOCHE PARISH located in T10N R6W Sections 1,2,3,10,11,12,13,14,15; T11N R5W; T12N R5W; T13N R5W; T11N R6W; T12N R6W; T13N R6W; T13N R7W Sections 1,2,3,10,11,12,13,14,15,22,23,24,25,26,27, 34,35,36.

and

2. the recommended management controls of the critical ground water area, that may include but not be limited to:

The Sparta Groundwater Conservation District Commission makes the following recommendations on designating a Critical Groundwater Area.

- a. Provide an avenue of cooperation between the Louisiana Ground Water Management Commission and the Sparta Groundwater Conservation District Commission and all state and federal agencies to restrict construction, where possible, of any facility in the Recharge Area which would be detrimental to allowing only acceptable, clean water to infiltrate through the ground surface to recharge the Sparta aquifer. This includes, but is not limited to, waste disposal sites, and industries that handle hazardous wastes.
- b. New water wells shall be subject to a permitting process. Existing water wells that exceed their well design capacity (pumpage rate as shown on DOTD well registration) shall be subject to a permitting process. This assumes that existing users will continue pumping at their historical rates (as reported to DOTD annually) established over the past three years and not increase pumpage dramatically.
 1. Permit Cost – Cost of permitting will be amount required to cover cost of administering the permitting process. Permit cost will be collected by the permitting agency as specified by the Louisiana Legislature (recommend Sparta Groundwater Conservation District Commission be the permitting agency.)
 2. Well type – Any well drilled or constructed for the principal purpose of producing groundwater from the Sparta aquifer.
 3. Restrictions of water wells – Permit will be required for all new water wells producing in excess of fifty thousand gallons per day (50,000 gpd) for any day during any calendar year.
 4. Evaluations of permit applications – Recommend that the Louisiana Legislature grant authority to the Sparta Groundwater Conservation District Commission to evaluate the well permit application and issue permits. Evaluations shall take into consideration well spacing and depth, design capacity, anticipated usage, name of owner, location of well, date of application, anticipated date of initiating well construction or drilling, classify as to whether or not well is to be used for public, industrial, private, or agricultural purposes. Demonstrate effect new well will have on the water level and the water quality of the Sparta aquifer.
 5. Conditions of denial of permit – Permit will be denied if application is incomplete or if erroneous information is provided. In addition, permit will be denied if sustainability

of aquifer will not be maintained and if there will be a decrease in water quality, i.e., salt water contamination (which exceeds 250 mg/l).

- c. Sparta Groundwater Conservation District Commission and Louisiana Ground Water Management Commission should recommend that

