AGREEMENT

This Agreement is entered into this 29th day of April, 2003, by and between Leon County, Florida, a political subdivision of the State of Florida, hereinafter "County," and, ENVIRONMENTAL RESEARCH & DESIGN, INC., hereinafter "Contractor".

WITNESSETH

For and in consideration of the mutual covenants, restrictions, and representations set forth herein, the sufficiency of which is hereby acknowledged, County and Contractor do hereby agree as follows:

1. County and Contractor entered into an Agreement dated July 24, 2001, between County and Contractor, which Agreement allows for changes to be made to the agreement with prior written agreement signed by the parties thereto, the parties hereby agree to extend the Agreement to October 31, 2004. Further, the parties agree to revise the July 24, 2001 Agreement with the Scopes of Work for Phases II-A and II-B and the revised Project Schedule, and the Performance Criteria attached respectively as Exhibits A, B, C, and D.

2. The total cost of this extended contract will remain the same.

3. All other provisions of the July 24, 2001 Agreement remain in full force and effect.

4. This agreement shall become effective upon full execution hereof by both parties.

IN WITNESS WHEREOF, the parties evidence their agreement through the execution of this AGREEMENT by their duly authorized signatories.

CONTRACTOR

WITNESS:_____ BY:_____
President

WITNESS:_____ DATE:_____

(CORPORATE SEAL)

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____day of_____, 20 ___.

By _____, of _____,
(Name of officer or agent, title of officer or agent) (Name of corporation acknowledging)

a _____ corporation, on behalf of the corporation.
(State or place of incorporation)

He/she is personally known to me or has produced _____as
(type of identification)

_____
Signature of Notary

_____
Print, Type or Stamp Name of Notary

_____

LEON COUNTY, FLORIDA

BY:_____
Tony Grippa, Chairman
Board of County Commissioners

DATE:_____

ATTEST:
BOB INZER, CLERK OF THE COURT
LEON COUNTY, FLORIDA

By:_____

APPROVED AS TO FORM:
LEON COUNTY ATTORNEY'S OFFICE

By:_____
Herbert W.A. Thiele, Esq.
County Attorney

EXHIBIT A

Lake Lafayette Watershed Study Phase II-A Scope of Work
(Lake and Tributary Monitoring Program)

Task 1 - Prepare and submit a Quality Assurance Project Plan (QAPP) to the County that, in turn, will be submitted to the U.S. Environmental Protection Agency (the Granting Agent for this project) for that agency's approval.

Task 2: Install monitoring equipment in Lake Lafayette and provide a Report describing these sites.

2.1 Install inflow and outflow monitoring equipment.

2.1.1 Install automated water quality samplers, continuous flow monitoring recorders, and a water level staff gage or water level reference mark tied to North American Vertical Datum (NGVD) at the following locations where Lake Lafayette's three major tributaries discharge to the lake:

A) On the east side of Alford Arm Tributary 30 feet upstream of the culverts under Buck Lake Road (Station L28),

B) Below the outfall weir for Weems Pond, along the creek 15 feet downstream of the east side of Weems Road (Station L00A), and

C) On Lafayette Creek on the eastern boundary of Tom Brown Park immediately upstream of the CSX Railroad trestle bridge (L00D).

2.1.2 If the stage of Lower Lake Lafayette rises to a level sufficient to cause a continuing discharge through the box culvert under Chaires Road, install a continuous monitoring flow gage and recorder at this location.

2.2 Install lake level staff gages and tie them to NGVD datum.

2.2.1 If not previously accomplished by a governmental agency, perform elevation surveys that tie the following three lake level staff gages to NGVD datum (preferably a government bench mark).

A) Upper Lake Lafayette - adjacent to Lafayette Sink. Location description?

B) Lake Piney Z on the central finger island.

C) Lower Lake Lafayette - along the south shore of the lake adjacent to the Leon County Landfill.

Inspect these staffs to verify their structural stability and provide documentation of their being tied to NGVD datum.

2.2.2 Install a lake level staff gage north of the CSX Railroad adjacent to the east shore of Lower Alford Arm near Dr. Alford's home (Station L26) and perform an elevation survey to tie the staff to NGVD datum

2.3 Install a continuous recording rain gage in the vicinity of the Interstate 10 - U.S. 90 intersection.

2.4 Monitoring Equipment Installation Report

Subsequent to installation of the above equipment, a Monitoring Equipment Installation Report shall be submitted to the County with the following information about each of the above sites 1) a brief narrative description of the site where the monitoring equipment is located, 2) a detailed description of how to access the site, 3) the property owner of the site, 4) a signed letter of permission from the site owner, 5) a map of each site, 6) a brief description of the sampler and flow meter (manufacturer's spec sheet will do) and 7) a photograph of the staff and monitoring equipment. The report should also provide a brief assessment as to the suitability of the site for both water quality monitoring and flow monitoring. (i.e. Are there any shortcomings, such as: bad dogs, locked gates, poor security for equipment, tailwater conditions, difficulty in accurately measuring flow, blocking of flow due to floating vegetation, or excessive turbidity/ turbulence associated with the location?)

The Report shall also include a copy of the field survey notes that tied the water level reference marks and/or staff gages to a certified (name, location, elevation, and governmental agency) NGVD bench mark. The elevation closure between the outbound and return runs shall be calculated and noted.

The Monitoring Equipment Installation Report shall be delivered to the County one month after completing the installation of all of the above equipment.

Task 3 - Perform 12 months of monitoring of Lake Lafayette and its tributaries in accordance with the Quality Assurance Project Plan approved by EPA (see Task 1).

3.1 Monitor Lake Lafayette's tributaries for 12 months.

3.1.1 Perform 12 months of water quality, stream stage, and flow monitoring at the locations where the three primary tributaries enter Lake Lafayette (as listed in Task 2.1).

Flow will be monitored and recorded continuously over the 12 month period.

Flow weighted composite inflow samples will be collected from each of the auto-samplers during periods of flow for the 12 month period. Based on the recorded flow hydrographs and rainfall records, these samples will be divided into dry weather base flows and storm event runoff flows. A total of 12 base flow samples and 12 storm runoff samples will be collected at each of the three main tributary sites for a total of 72 separate flow weighted samples. For the runoff event samples, ERD will attempt to collect six samples from rainstorms in the 0.25-1.00 inch range, four samples from rainstorms in the 1.00 to 2.00 inches range, and two samples from rainstorms in the greater than 2.00 inches class.

Field and lab work for Task 3.1.1 will be accomplished primarily by McGlynn Labs.

3.1.2 Further sampling up the tributaries - If *elevated pollutant concentrations* are observed in any of the above samples, this information shall be forwarded to the County so that together with ERD, a plan to identify the source of these pollutants can be developed. The collection and analysis of up to 32 additional grab samples (stormwater flow and base flow), should they be called for, can be undertaken subsequent to the County's written authorization.

Elevated pollutant concentrations shall be considered to be concentrations that violate Class III water quality standards (Florida Administrative Code 62-302.530) or are, in the opinion of Dr. Harper, abnormally elevated for a normal Florida stream.

All of the tributary water quality samples (Task 3.1.1 and 3.1.2, if called for) will be analyzed for the following parameters:

(1) pH	(8) Orthophosphorous	(15) **Total Cadmium**
(2) Conductivity	(9) Particulate Phosphorous	(16) **Total Zinc**
(3) Alkalinity	(10) Total Phosphorous	(17) **Total Copper**
(4) Nitrate-Nitrite Nitrogen	(11) Total Suspended solids	
(5) Ammonia Nitrogen	(12) Turbidity	(18) **BOD**
(6) Particulate Nitrogen	(13) Color	(19) Fecal Coliform
(7) Total Nitrogen	(14) Chloride	(20) **E. Coli**

Field and lab work for Task 3.1.2 will be accomplished by McGlynn Labs.

3.1.3 Sixteen of the samples collected along the tributaries (Tasks 3.1.1 and 3.1.2) will also be analyzed for organic compounds (Methods 8270 and 620).

Sampling for organic compounds will occur adjacent to primary inflow locations and where visual or olfactory evidence strongly suggests contamination by organic compounds.

Field and lab work for Task 3.1.3 will be accomplished by McGlynn Labs.

3.2 Monitor Lake Water Quality

3.2.1 For the following locations in Lake Piney Z (one) and Alford Arm (two), perform 12 months of grab-sample water quality monitoring (36 total samples).

Once per month, sample and analyze lake water obtained at a depth of 0.5 meters, similar to that done for McGlynn Lab's lake monitoring contract with the County:

Lake Piney Z (Station LPZ 1) - (*Location description and map showing sampling station*)

Middle Alford Arm approximately 0.75 mile south of Buck Lake Road (Station L 27) (*Location description and map showing sampling station*)

Lower Alford Arm approximately 0.6 mile north of the CSX Railroad (Station L 26) (*Location description and map showing sampling station*)

At the time that water samples are collected, the following parameters shall also be measured (and recorded) - at the surface and at 0.5 meter intervals of depth until the lake bottom is reached: pH, temperature, conductivity, and dissolved oxygen.

The lake water quality samples from the above three stations will be analyzed for the following parameters:

(1) Alkalinity	(8) Particulate Organic Matter (VSS, Residue, Volatile)
(2) TKN	(9) Particulate Inorganic Matter (FSS, Residue, Fixed)
(3) Ortho Phosphorous	(9) Dissolved Organic Matter (VDS, Residue, Volatile)
(4) Total Phosphorous	(11) Dissolved Inorganic Matter (FDS, Residue, Fixed)
(5) Total Suspended Solids	(12) **BOD**
(6) Turbidity	(13) Chlorophyll a,b,c, and Phaephytin
(7) Total Dissolved Solids	(14) Fecal Coliforms
	(15) **E. Coli**

Field and lab work for Task 3.2.1 will be accomplished by McGlynn Labs.

3.2.2 Once during the 12-month monitoring period, a sample taken from each of the four distinct compartments of Lake Lafayette, at one of the designated monitoring stations, will be analyzed for Class III parameters (Florida Administrative Code 62-302.530).

Field and lab work for Task 3.2.2 will be accomplished by McGlynn Labs.

3.2.3 In two different months over the 12-month sampling period, when there are high flows

into Lake Lafayette Sink (Station L02), collect water samples at the sink and analyze them for all primary and secondary drinking water standards per Florida Department of Environmental Regulation rules (Florida Administrative Code 62-550.310, Table 1).

3.3 Monitor Seepage from the WWTP

3.3.1 Perform a field reconnaissance on the sloped area north of the Talquin Wastewater Treatment Plant (situated on the south shore of Lower Lake Lafayette). With surveying stakes and flagging clearly identify any soil piping tubes that are allowing sewage plant effluent to discharge directly to Lower Lake Lafayette. Provide a map to the County that locates these "seepage" locations.

3.3.2 If such "seepage" locations are identified and after authorization by the County, determine the collective flow rate from these "seeps", collect a water sample therefrom, and analyze the sample for the parameters listed in Task 3.1.2. Do this once per month for a period of 12 months.

Field and lab work for Task 3.3.2 will be accomplished by McGlynn Labs.

3.3.3 Should WWTP seepage sampling be implemented, analyze three of the seepage samples taken during different months for organic compounds (Methods 8270 and 620).

Field and lab work for Task 3.3.3 will be accomplished primarily by McGlynn Labs.

3.4 Collect rainfall records and service the rainfall gage once per month. At the same time, read and record the four lake level staff gages described in Task 2.2.

3.5 Sediment Sampling -

3.5.1 During the course of the monitoring effort, collect and analyze 30 lake bottom sediment core samples, each from a different location. The samples will be distributed throughout the four units of Lake Lafayette, be located in both deep and shallow areas of the lake, will not be in areas currently being sampled under the County's lake monitoring contract, and will be determined in consultation with the County.

The sediment cores shall be taken with a split spoon coring device from the 0-10 centimeter layer. Triplicate samples will be taken at each of the 30 locations, the visual characteristics of each separate sediment core recorded, and then composited into a sample container for analysis later. These samples will be analyzed for the following parameters.

(1) Moisture Content	(5) Total Cadmium
(2) Organic Content	(6) Total Zinc
(3) Total Phosphorous	(7) Total Copper

(4) Total Nitrogen

3.5.2 Ten of the sediment core samples obtained will be analyzed for organic compounds (Methods 8270 and 620).

These samples will be obtained in proximity to primary inflow locations and where visual of olfactory signals strongly indicated the possibility of pollution by organic compounds.

Lab work for Task 3.5.2 will be accomplished by McGlynn Labs.

3.6 Prepare and submit Quarterly Monitoring Reports to the County.

These reports shall include tabular summaries of all data collected at the sites - rainfall stream flows, the results of all water sample analyses, the results of sediment core analyses, the dates and storms from which samples were collected, and all other data collected. These reports should also describe any functional difficulties with monitoring equipment during the period covered by the report, whether any data collection was lost as a result, and what was done to correct the problem. If any significant findings result from the analysis of this data, such findings shall be included in the quarterly report.

These quarterly reports shall be due 45 days after the end of a three-month monitoring period. The final quarterly monitoring report shall be due 60 days subsequent to the last storm event measured/sampled during the 12 month monitoring period.

Task 4 - Develop and produce a digital vegetative cover map of the four units of Lake Lafayette.

In cooperation with the County's GIS office and utilizing their services as a paid subcontractor to produce digital data products, prepare a vegetative cover map of Lake Lafayette. This map shall identify the various vegetative zones within the four units (Upper Lake Lafayette, Lake Piney Z, Lower Lake Lafayette, and Alford Arm) of Lake Lafayette as follows:

Greg Mauldin of County GIS will provide list of plant communities to be mapped.

(1) The area of the lake(s) that is open water with little submerged or emergent vegetation.
(2) The area of the lake bottoms possessing submerged vegetation, mapping no more than four types of plant communities and/or densities of coverage.
(3) The area of the lake surfaces possessing emergent vegetation, mapping no more

than four types of plant communities and/or densities of coverage.

(4) The littoral/wetland border of the lake upland of the normal pool for a distance of fifty feet horizontal, mapping no more than types of plant communites.

After a field reconnaissance, and inspection of aerial photos and preliminary map products by County GIS, the County and ERD shall together decide upon the final vegetation classes.

The final vegetation map shall be delivered to the County at or prior to the time that the final quarterly report is due (see Task 3.6).

Task 5 - Develop and produce a bathymetric map of the four units of Lake Lafayette.

5.1 County GIS will produce the bathymetric maps for the Upper Lake Lafayette and Lake Piney Z.

The map for Upper Lake Lafayette will be produced by the County at no charge to ERD.

For the Piney Z map, County GIS will need to charge for the time involved in digitizing the Florida Fish and Game Commission's survey of Lake Piney Z and then integrating it into the existing upland digital topographic data base.

5.2 Perform bathymetric surveys of Lower Lake Lafayette and Alford Arm and produce bathymetric maps of these.

5.2.1 After a field reconnaissance, ERD shall propose a specific plan for performing a hydrographic survey of Alford Arm and Lower Lake Lafayette. This plan should contain specific information about the following:

Jeff Herr of ERD will provide "technical specs" of hydrographic survey and how such information will be obtained.

(1) How a survey can realistically be accomplished in such a densely vegetated and, in many places, very shallow environment.
(2) How reasonably accurate planimetric locations of soundings will be determined.
(3) How water depths to hard bottom and to top-of-sediment (or false bottom) will be determined (fathometer, level rod, other?).
(4) How recorded water depths in the various lakes will be tied to NGVD datum.
(5) What the spacing between survey lines will be and what decision process will be used to either widen or narrower this spacing during the course of the field survey.

(6) In lieu of #4 above, what sort of spacing system will be utilized between individual soundings ?
(7) What method, such as surveyed crossing lines, will be used to check/verify the overall accuracy of the hydrographic survey?
(8) The survey documentation which will be provided to the County.
(9) The general specifications of the hydrographic chart, digital data or survey that will be received as a deliverable by the County.

5.2.2 Subsequent to the County's approval of the plan in Task 5.2.1, perform bathymetric surveys of Lower Lake Lafayette and Alford Arm. Working with County GIS as a subcontractor, integrate this survey data into the County GIS digital data base and produce bathymetric maps of these two areas of Lake Lafayette.

The bathymetric maps called for in Task 5.2 shall be delivered to the County at or prior to the time that the final Quarterly Monitoring Report is due (see Task 3.6).

5.3 Subsequent to the production of bathymetric maps for all of the four lakes, County GIS shall provide to ERD stage-area and stage-volume relationships for all of the lakes.

Task 6 - Propose and perform tests on the Lake Lafayette groundwater system.

6.1 Meet with the County and other governmental experts in local groundwater hydrology to propose a set of tests or observations to determine the characteristics of groundwater flow from the Lake Lafayette sink to the downstream area. Hold this meeting during the first half of the forth month of the Phase II effort.

6.2 Perform the tests and/or observations specified by the efforts in Task 6.1. Accomplish this work between month five and month thirteen of the Phase II project.

6.3 Provide the County with a Groundwater Hydrology Report. Provide data, describing the findings and hydrologic implications of the tasks performed in Task 6.2. Deliver this Report to the County one month after the conclusion of Task 6.2.

Task 7 - Hold a meeting with the County to assess the findings of the 12-month monitoring effort.

County staff shall attend a meeting at ERD's office in Orlando to discuss the significant findings of the twelve month monitoring program. This meeting shall occur approximately two weeks after receipt of the final Quarterly Monitoring Report.

EXHIBIT B

Lake Lafayette Watershed Study Phase II-B Scope of Work
(Modeling, Analysis, and Management Recommendations)

Task 8 - Evaluate Existing Annual Pollutant Loadings and the Ecological Condition of Lake Lafayette and the Lake Lafayette Watershed.

8.1 Calibrate the existing spreadsheet stormwater runoff (annual volume) model developed by ERD for the City of Tallahassee (CoTNSLMM2 LL080502.xls, ie. City of Tallahassee Non-Point Source Loading Management Model) utilizing the rainfall and flow data collected during the 12-month monitoring period.

The "assumed" hydrologic parameters for the various sub-basins/catchments draining to Lake Lafayette will be modified/adjusted so that predicted inflow and outflow volumes will conform to those actually observed.

Data to demonstrate runoff model calibration shall be provided in the "Existing Status Report" called for in Task 8.5.

8.2 Develop an existing condition 12 month water budget for Lake Lafayette.

This shall be based on the runoff model calibrated in Task 8.1, dry weather base flow into the lake as identified by the 12-month monitoring effort, direct precipitation on to the lake, seepage from the Talquin WWTP as measured during the monitoring effort, evapotranspiration out of the lake, lake outflow eastward under Chaires Road, and the storage volumes of the four lakes as established by the monthly lake level staff gage readings. Groundwater seepage, including the flow into Lafayette Sink and other lesser sinks, will be calculated as the difference between all inflows less all outflows as set forth above.

8.3 Develop an existing conditions 12 month pollutant loading budget for Lake Lafayette.

This budget shall be based on the runoff model calibrated in Task 8.2 and the pollutant concentrations ascertained by the flow monitoring and pollutant sampling effort on the three principal tributaries of Lake Lafayette. Month-by-month pollutant loadings will be calculated by multiplying the monthly runoff volumes by the appropriate event mean pollutant concentrations determined during the 12-month water sampling effort. Monthly bulk pollutant loads will be determined by multiplying the monthly rainfall depth onto Lake Lafayette by atmospheric pollutant concentrations obtained from the scientific literature.

It is anticipated that pollutant loadings will be developed for total phosphorous, total nitrogen, total suspended solids, BOD, total cadmium, total copper, and total zinc.

8.4 Develop and calibrate a 12 month spreadsheet lake pollutant loading/pollutant

concentration model for existing conditions.

To accomplish this, utilize the existing condition monthly pollutant loadings developed in Task 8.3 and the lake volumes as determined by utilizing the monthly lake level staff gage readings. The existing conditions pollutant loading/pollutant concentration model will include linkages between four elements - Upper Lake Lafayette, Lake Piney Z, Lower Lake Lafayette, and Alford Arm.

ERD shall evaluate and report the "accuracy" of the existing conditions pollutant loading/concentration model by utilizing linear regression to compare the monthly water quality predicted by the spreadsheet model with the historical in-lake pollutant concentration data collected on a monthly basis by McGlynn laboratories, Inc.

8.5 In a report entitled "Existing Status of Lake Lafayette and the Lake Lafayette Watershed - 2003" , summarize existing conditions as determined in Tasks 8.1 through 8.4, Task 3.6 (Quarterly Monitoring Data Reports), Task 4 (Vegetative Cover Map), Task 5 (Bathymetric Maps), and Task 6.3 (Groundwater Hydrology Report). Summarize tributary water quality, lake(s) surface water quality, quality of water discharging into Lafayette Sink, ecological conditions of the lake(s), lake(s) vegetative cover - submerged, floating, emergent, and littoral, status of peat/silt buildup in each lake, bathymetry, pollutant seepage into the lake(s), and the status of the woodstork rookery and lake fishery. Identify all evaluated elements which do not currently meet the established goals for Lake Lafayette as set forth in Tasks 3-3 and 3-4 of Phase One of this study.

The "Existing Status - 2003 Report" shall be delivered to the County for review simultaneously with the list of lake and watershed management alternatives called for in Task 9.1

Task 9 - Select lake and watershed management alternatives for evaluation.

9.1 Propose and provide to the County an extensive list of practical structural and non-structural, in-the lake and watershed management alternatives to achieve the goals set forth in Tasks 3-3 and 3-4 of Phase I of the study.

Potential in-the-lake management alternatives include: removal of tussocks (floating vegetated islands) in Lower Lake Lafayette and Alford Arm, improving the hydraulic connection between Lake Piney Z and Lower Lake Lafayette, improving the hydraulic connection between Lower Alford Arm and Lower Lake Lafayette, providing a hydraulic connection between Upper Lake Lafayette and Lake Piney Z, providing for lake level management of the four individual lakes, constructing berms in Upper Lake Lafayette to lengthen the flow path from Weems Road to Lafayette Sink and planting this flow path with emergent wetland vegetation, constructing a berm around Lafayette Sink to create and impound a shallow vegetated marsh in Upper Lake Lafayette, and others as recommended by ERD, the County, and Lake Lafayette Stakeholders.

developed by ERD utilizing the future land use map and associated digital data provided by the County.

10.2 Develop a monthly future conditions water budget for Lake Lafayette.

This water budget shall be based on the runoff model calibrated in Task 10.1, and the remaining monthly water budget items calculated in Task 8.2 - dry weather base flow into the lake as identified by the 12-month monitoring effort, direct precipitation on to the lake, seepage from the Talquin WWTP as measured during the monitoring effort, evapotranspiration out of the lake, lake outflow eastward under Chaires Road, and the storage volumes of the four lakes as established by the monthly lake level staff gage readings. Future groundwater seepage, including the flow into Lafayette Sink and other lesser sinks, will be calculated as the difference between all inflows less all outflows as set herein.

10.3 Develop a 12 month future conditions pollutant loading budget for Lake Lafayette.

This budget shall be based on the future conditions runoff model developed in Task 10.2 and the pollutant concentrations ascertained by the existing conditions flow monitoring and pollutant sampling effort on the three principal tributaries of Lake Lafayette. Month-by-month future condition pollutant loadings will be calculated by multiplying the future condition monthly runoff volumes by the appropriate event mean pollutant concentrations determined during the 12-month water sampling effort. Monthly bulk pollutant loads will be determined by multiplying the monthly rainfall depths onto Lake Lafayette by atmospheric pollutant concentrations obtained from the scientific literature.

10.4 Develop and calibrate a 12 month spreadsheet lake pollutant loading/pollutant concentration model for future conditions.

To accomplish this, utilize the future monthly pollutant loadings developed in Task 10.3 and the lake volumes as determined by utilizing the monthly lake level staff gage readings. The future conditions pollutant loading/pollutant concentration model will include linkages between four elements - Upper Lake Lafayette, Lake Piney Z, Lower Lake Lafayette, and Alford Arm.

Future conditions lake pollutant loadings and lake pollutant concentrations will be determined for the same parameters as set forth in Task 8.3, second paragraph.

10.5 Utilizing the future conditions pollutant loading/concentrations model developed in Task 10.4, calculate the pollutant load reductions necessary in each of the four lakes to achieve the lake water quality goals set forth in Tasks 3-3 an 3-4 of Phase I .

10.6 Evaluate the final set of lake and watershed management alternatives identified in Task 9.4 as to their ability to achieve the pollutant load reductions calculated in Task 10.5.

The anticipated mass pollutant load reductions produced by each of the alternatives in each of the four lakes and the resulting lake water quality will be calculated/determined and then compared to that needed in each of the lakes.

10.7 Develop and provide for the County's review a Draft Lake Lafayette/Lake Lafayette Watershed Management Plan which will achieve the goals set forth in Phase I.

This plan will likely advocate a number of the alternatives designated or further study in Task 9.4. The Management Plan will address improvements in: lake surface water quality, water discharging to Lafayette Sink, lake vegetative cover, the woodstork rookery, and the lakes' fisheries.

The Draft Management Plan shall include: the finalized list of lake and watershed management alternatives (Task 9.4), and the findings, results, and conclusions of Tasks 10.1 to 10.6.

10.8 After giving the County two weeks to review the Draft Management Plan, hold a review meeting with the County staff to discuss the results of Tasks 10.1 to 10.7.

10.9 Schedule, coordinate and attend a meeting with the Lake Lafayette Stakeholders to present the findings, results, and recommendations set forth in the Draft Lake Lafayette/Lake Lafayette Watershed Management Plan.

The purpose of this meeting is to disperse the findings, results, and recommendations set forth in the Draft Management Plan, and to solicit both verbal comments and written comments (to be provided later).

10.10 Finalize the Lake Lafayette/Lake Lafayette Watershed Management Plan based on the input received from the stakeholders and the County.

Task 11 - Submit a Final Report and Hold a Public Meeting(s).

11.1 Prepare and submit to the County a Final Lake Lafayette/Lake Lafayette Watershed Current Status and Management Recommendations Plan. Ten (10) copies of this report shall be submitted.

11.2 At a public meeting scheduled and coordinated by the County (possibly a Board of County Commission Workshop), present the findings, results and management recommendations of the project, and answer questions about the project.

11.3 If requested by the County to do so, attend up to two additional meetings to present the findings, results, and management recommendations, and answer questions regarding the project.

Task 12 - Administration/Reporting on Study's Progress

Prepare and submit monthly progress reports and invoices to the County for the previous month's efforts and accomplishments.

EXHIBIT C

LAKE LAFAYETTE WATERSHED STUDY
BC-02-21-01-13

PHASE II SCHEDULE

Prepared by
Environmental Research & Design, Inc.
April 15, 2003

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Prepare/submit QAPP to County/Approval by EPA														
2.1.1	Install automated water quality monitoring equipment														
2.1.2	Install continuous monitoring equipment at Lower Lake Lafayette, if needed														
2.2.1	Perform elevation surveys														
2.2.2	Install lake level staff gage at Station L-26														
2.3	Install continuous recording rain gage at I-10/US 90 intersection														
2.4	Prepare Monitoring Equipment Installation Report														
3.1.1	Perform water quality monitoring for 12 months														
3.1.2	Perform sampling up the tributaries														
3.1.3	Analyze samples for organic compounds														
3.2.1	Perform 12 months of grab sample water quality monitoring at Lake Piney Z and Alford Arm														
3.2.2	Analyze water quality sample for Class III parameters														
3.2.3	Collect water samples at sink and analyze for primary and secondary drinking water standards														

Attachment # 1
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3.3.1	Determine seepage locations at Talquin WWTP																
3.3.2	Determine collective flow rate from seeps; collect water sample																
3.4	Collect rainfall records																
3.5.1	Collect/analyze 30 lake bottom sediment core samples																
3.5.2	Analyze 10 sediment core samples for organic compounds																
3.6	Prepare/submit Quarterly Monitoring Reports to County																
4	Develop/produce digital vegetative cover map																
5.1	Produce bathymetric maps for ERD																
5.2.1	Propose plan for performing hydrographic survey																
5.2.2	Perform bathymetric surveys																
5.3	Provide stage-area and stage-volume relationships to ERD																
6.1	Meet with County/government experts; determine tests/observations to be performed																
6.2	Perform tests/observations specified under Task 6.1																
6.3	Prepare Groundwater Hydrology Report																
7	Attend review meeting																

Attachment # 1
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TASK	TASK DESCRIPTION	2004								2005					
8.1	Calibrate existing stormwater runoff model spreadsheet														
8.2	Develop existing condition 12-month water budget														
8.3	Develop existing 12-month pollutant loading budget														
8.4	Develop/calibrate 12-month lake pollutant loading/pollutant concentration model spreadsheet														
8.5	Prepare/submit "Existing Status of Lake Lafayette and the Lake Lafayette Watershed-2003" report														
9.1	Propose/provide to County list of practical watershed management alternatives														
9.2	Meet with County to discuss results of Tasks 8.5 and 9.1														
9.3	Schedule/coordinate/attend review meeting with stakeholders														
9.4	Finalize management alternatives to be evaluated; define future condition to be studied														
9.5	County GIS Division will provide digital map/land use data														
10.1	Determine future monthly runoff volume														
10.2	Develop monthly future conditions water budget														
10.3	Develop 12-month future conditions pollutant loading budget														
10.4	Develop/calibrate 12-month spreadsheet for lake pollutant loading/pollutant concentration model														
10.5	Calculate pollutant load reductions necessary to achieve lake water quality goals in each of the 4 lakes														
10.6	Evaluate final set of lake and watershed management alternatives														
10.7	Develop "Draft Lake Lafayette/Lake Lafayette Watershed Management Plan"; submit to County for review														

10.8	Hold review meeting with County staff													
10.9	Schedule/coordinate/attend meeting with stakeholders													
10.10	Finalize Plan based on comments received from stakeholders and County													
11.1	Prepare/submit to County 10 copies of the Final Lake Lafayette/Lake Lafayette Watershed Management Plan													
11.2	Present findings, results, and management recommendations of the project													
11.3	Attend up to 2 additional meetings to present findings, results, and management recommendations													
12	Prepare/submit monthly progress reports/invoices to County													

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EXHIBIT D
PERFORMANCE CRITERIA

PERFORMANCE DEADLINES AND LIQUIDATED DAMAGES:

The work to be performed under this Contract as defined the scope of services for Phase II-A and Phase II-B shall be completed according to the five performance milestones listed below. If the work to be performed under this Contract is not completed within the time set forth above for each milestone, or within such extra time as may be granted by the County, the Contractor shall be deemed to be in default. For each day the Contractor is in default for each milestone, the Contractor or its Surety shall pay to the County, not as a penalty, but as liquidated damages, the sum of $200.

Permitting the Contractor to continue and finish the work or any part of it after the expiration of the contract time allowed, including extensions, if any, shall in no way act as a waiver on the part of County of the liquidated damages due under the contract.

PROJECT MILESTONES

1. A Monitoring Equipment Installation Report shall be submitted by June 30, 2003 in accordance with the Phase II-A Scope of Work.

2. The second Quarterly Monitoring Report shall be submitted to the County by January 15, 2004 in accordance with the Phase II-A Scope of Work.

3. The fourth Quarterly Monitoring Report shall be submitted to the County by July 15, 2004 in accordance with the Phase II-A Scope of Work.

4. The "Existing Status of Lake Lafayette and the Lake Lafayette Watershed-2003" Report and the list of Lake and watershed management alternatives shall be submitted to the County by August 30, 2003 in accordance with the Phase II-A Scope of Work.

5. A Final Lake Lafayette/Lake Lafayette Watershed Current Status and Management Recommendations plan shall be submitted to the County by October 30, 2004.