## ENVIRONMENTAL RESEARCH & DESIGN, INC.

WATER QUALITY ENGINEERING 3419 TRENTWOOD BOULEVARD ■ SUITE 102 ■ ORLANDO, FLORIDA 32812 TELEPHONE: (407) 855-9465 FAX: (407) 826-0419

June 9, 1998

Mr. Michael R. Magahey Stormwater Engineer City of Winter Park 401 Park Avenue, South P.W. STORWWATER Winter Park, FL 32789

RE:

Winter Park Chain-of-Lakes Sediment and Groundwater Study

Dear Mike:

Environmental Research & Design, Inc. (ERD) has prepared a revised Scope of Services and Man-Hour/Fee Summary for completing proposed work efforts related to the Winter Park Chain-of-Lakes Sediment and Groundwater Study. The scope outlines specific tasks necessary to identify the annual nutrient contribution from groundwater seepage as well as internal recycling of phosphorus, under both oxic and anoxic conditions, in Lake Virginia, Lake Osceola, Lake Mizell and Lake Maitland. The significance of internal phosphorus recycling will be evaluated by direct measurement of phosphorus release from large diameter lake sediment core samples incubated under oxic and anoxic conditions. Historical field data collected in the four lakes by ERD will be used to evaluate the areal extent of anoxic conditions on a seasonal basis. After completion of the groundwater seepage and sediment analyses, a modified annualized hydrologic and nutrient budget will be developed utilizing information provided in the USGS report, as well as information developed by ERD. Draft and Final Reports will be prepared and submitted to the City of Winter Park.

Attached with this letter is Exhibit A: Scope of Services, Exhibit B: Man-Hour/Fee Summary, and Exhibit C: Project Schedule for your review. The project requires field monitoring of groundwater seepage during both wet and dry seasons, with seepage meter samples collected during two wet months and two dry months. Based upon the attached schedule, collection of seepage meter samples will occur from mid-July to mid-September, representing wet season conditions, and from mid-September to mid-November, representing dry season conditions. Assuming a start date of July 1, 1998, the project will be completed and the Final Report submitted in March 1999.

Thank you for the opportunity of providing this proposal to the City of Winter Park. If you have any questions or comments regarding the proposal, please do not hesitate to contact me.

Sincerely.

President

Enclosure: Exhibits A, B and C

Job No. 98-814

17 St WD- LAKES

## **MEMORANDUM**

To:

Bernadette Hitchins, Purchasing Agent

Thru:

Troy Attaway, P.E., City Engineer

From:

Joseph L. Serrano, Project & Construction Manager

Date:

June 12, 1998

Subject:

Winter Park Chain-of-Lakes Sediment & Groundwater Study

## Winter Park Chain-of-Lakes Sediment & Groundwater Study:

Environmental Research & Design, Inc. was selected and ranked #1 by the Selection Committee for the above mentioned project. This entitled the firm to negotiate the fee with the City of Winter Park. On June 9, 1998 the Committee negotiated with Harvey H. Harper, President of Environmental Research & Design, Inc.. Both the firm and the City agreed on the negotiated Scope of Services and the Fee Summary for this project.

The committee is recommending that the City Commission Approve the negotiated Project Total of \$48,000.00 (Details Attached)

**Budget Stormwater CIP** 

proposal, please do

parabutg

Harrey H. H

President

Enclosure Exhibits A, B and C

Job No. 98-814