EXECUTIVE SUMMARY

The Curiosity Creek watershed basin is approximately 4 (four) square miles and is located in the northwest part of Hillsborough County and in the City of Tampa. The northern two-thirds (approximately) of the watershed lies within the limits of Hillsborough County and is bounded roughly by Country Club Drive to the south (Hillsborough County boundary), Interstate I-275 on the east, Lake Magdalene Boulevard on the north and the lakes of Magdalene, Carroll and Platt on the west. The remaining one third of the watershed lies in the City of Tampa. The system contains many small lakes, ponds and depressional areas. The larger lakes in the watershed include Gass, Golden Trout, Butler, Cedar East, Cedar West, Pine, Eckels and Noreast. Lake Gass is the largest lake in the watershed and is approximately 33 acres in area.
The entire watershed drains to the Blue Sink, which is a sinkhole located in the City of Tampa.

The drainage system of Curiosity Creek can be divided into three segments, the Northwest Lake System, the Curiosity Creek Main Channel and the Forest Hills Basin. The Northwest Lake System comprises an area of approximately 530 acres. This area has been developed mostly into residential land use and contains many interconnected lakes. Runoff from the Northwest Lake System originates in the area north of Fletcher Avenue, south of Bearss Avenue and west of Rome Avenue. Most of the lakes in this system transfer flow through pipes and ditches discharging into Curiosity Creek approximately one-half mile north of the crossing at Fowler Avenue (Country Club Drive). It should be noted that not all of the lakes in this system (and throughout the watershed) have positive outfalls. These areas are known as “blinds” and may discharge in an out of bank condition during storm conditions.

Kisinger Campo & Associates Corp. and Scheda Ecological Associates, Inc. were retained by Hillsborough County to prepare the Curiosity Creek Stormwater Management Plan as a part of the County’s overall watershed management program. **The area of evaluation was limited to the watershed area within the Hillsborough County limits, which contain lakes or that actually discharge to the creek**. Therefore, much of the Forest Hills area is not included in this work. The objectives of the plan were to describe existing flooding, water quality, natural systems, and water supply conditions within the watershed and to develop alternatives to improve areas not currently meeting the County’s level of service.

Existing conditions were based on: the existing infrastructure the analysis of computed water surface elevations and flows, historical stream, groundwater and lake water quality data; and natural systems information in the basin. Survey data and construction drawings were used to identify existing stormwater features. Available land use, soils and topographic maps were employed to derive runoff parameters and were also used in water quality modeling and natural systems evaluations. Hydraulic input data for the County stormwater model was then developed based on the physical characteristics of the watershed and was then calibrated to known storms from the past to ensure the accuracy of the model.

The results from the calibrated existing conditions model were then used to evaluate the location and degree of expected flooding within the study area to determine the existing conditions for the 2.33-year, 5-year, 10-year, 25-year, 50 year and 100 year design storms. The model was then used to evaluate the existing conditions Level of Service (LOS) for the watershed. Where possible, the output from the model was compared with historical high water marks, flooding complaints registered with Hillsborough County and public input from two workshops held as part of the development of the watershed management plan. Historical, documented flooding problems were given priority in the analysis and evaluation.

Upon completion of the existing conditions analysis, an analysis of alternatives to alleviate flooding, water quality, natural systems, and water supply problems was performed. These alternatives were evaluated with the objective of improving the current level of service for flood protection as well as integrating important water quality, natural systems, and water supply improvements.

Hillsborough County has a targeted level of service for the primary conveyance features that will protect homes and limit street and yard flooding during the 25-year, 24-hour duration storm event. The calibrated existing condition model was used to simulate possible alternatives and evaluate results. All alternatives were evaluated for a potential water quality, natural systems, and/or water supply benefit. The evaluation also included County projects in the basin that were previously planned prior to the start of the study. The evaluation of alternatives also factored in considerations of potential permitting issues, public acceptance potential, and planning level cost estimates.

The alternatives were then ranked with consideration given to the previously mentioned evaluation factors and recommended alternatives were selected. These recommendations were presented to the public at a workshop, refined and incorporated into the County Stormwater Model and the Preferred Plan was generated. The recommendations in the Preferred Plan are summarized in the following table:

Preferred Plan *for the* Curiosity Creek Watershed

#	Alternative Number	Project Name	Planning Level Costs (in thousands)	Overall Score	Remarks
1	11	Taliaferro St. Floodplain Reclamation and Stormwater Treatment Pond	525	16.2	Hills Co. CIP #47001 Storage Element
2	9	Floodplain Reclamation at Mobile Home Community	665	15.1	
3	6	Lake Golden Trout Excavation and Upland/Wetland Restoration	569	13.4	Storage Element
4	16	Preserve Upland/wetland Buffer at Cedar Lake East	412	13.3	
5	4	Lake Cedar West Shoreline Re-Vegetation	25	13.2	
6	13	Floral Avenue Channel Improvements	147	11.4	Maintenance Element
7	12	Floral Avenue Improvements	2197	11	Storage & Conveyance Elements
8	7	Country Club Drive Structures	195	14.7	Conveyance Element
9	8	122nd Ave. Structures	72	14.8	Conveyance Element
10	3	Lake Cedar West Stormwater Treatment	165	4.1	
11	5	Lake Dorsett Stormwater Treatment/Sewer Connections	65	3.4	

12	1C	Gravity System Outfall for NW	457	3.3	Hills Co. CIP# 47238,47220,47294
13	10B	Channel Improvements and Floodplain Reclamation at 131st near Fletcher Ave.	1020	8.8	Storage and Conveyance Elements
14	14	Tyrone MHP Improvements	2944	6.6	Storage and Conveyance Elements
TOTAL			**9458**		