Northern Tampa Bay
Phase II
Projects – December 2004
1999

Northern Tampa Bay Phase II Scope of Work

October 21, 1999
DRAFT
Northern Tampa Bay II
Objectives

- Expand and Improve Data Collection
- Evaluate Existing MFL Methods and Develop New MFL Methods
- Evaluate the Effects of Recovery
- Evaluate Alternative Management Methods
Expand and Improve Data Collection

- Review existing sites and upgrade as needed
- Identify and pursue new sites as needed
- Concentrate in wellfield areas, but expand to areas less affected
- Maintenance of network – new priority
Wetland Monitoring Instrumentation

- Pine Flatwoods
- Upland well
- Water table
- Staff gage
- Wetland well
- Peat
- Sand
- Clay
Eleven Wetland Types
Complete Wetlands Monitoring Network

- Tampa Bay Water wetland wells
- Tampa Bay Water Wetland gages
- Proposed SWFWMD wetlands
- Historic SWFWMD wetlands
- Recent SWFWMD wetlands

Legend:
- Cone Ranch
- Public supply - dispersed
- Public supply - wellfields
Wetlands Monitoring Network

SWFWMD 105
Tampa Bay Water 317
Both 45
Total 467
Floridan and Surficial Aquifer Monitor Wells
Monitor Well Network - Northern Tampa Bay
Well Assessment and Maintenance

- Uniform construction specifications
- Taping of all surficial wells
- Logging of all Floridan wells
- Assessment of staff gage versus wetland wells
- Solutions to access problems
- Rehabilitation, replacement, or abandonment of problem or unneeded wells
WAP Assessment

- WAP program is the source of our biologic data for MFL methods and other uses
- Original method assessed
- New method devised and tested
- Newer method devised and tested
- Ongoing refinement and maintenance
Normal Pool Research

- Key concept in all wetlands work
- Older methods of determination were somewhat ad lib
- Seeking a “universal” set of indicators
- Research and data collection by Ted Rochow and Carr
- “Second look” by Schultz and others
- Reassessment of Normal Pool elevations
Indicators of Historic Normal Pool for Forested Wetlands

- Saw Palmetto (+0.2 ft.)
- Outer Cypress (+0.5 ft.)
- Cypress Inflection
- Moss Collar
- Lyonia lucida
- Normal Pool
Data base development and QA/QC

- Reassessment of SWFWMD data bases
  - WMDB
  - RDB
- Reassessment of TBW data bases
- Creation of biological data base (both TBW and SWFWMD)
- Assessment of historical data
Other types of data

- Rainfall
- Evapotranspiration (ET)
- Water quality
- Aquifer characteristics
Other NTB II Data Projects - Wetlands

- Monitoring of Lake Fringing Wetlands
- Wetland Wildlife Assessment - Amphibians
- Five-Year Wetland Assessment
Other NTB II Data Projects - Lakes

- Lake MFLs - Lake User Survey
- Lake MFLs - Wildlife Conditions Associated with Impacted Lakes
- Lake MFLs - Lake Vegetation and Light Penetration
Other NTB II Data Projects - Rivers

- Upper Hillsborough River Studies (MFL and USGS)
- Anclote River MFL studies
- Alafia River MFL studies
- Sulphur Springs MFL studies
- Hillsborough River Baseflow Study
- Lower Hillsborough and TBC studies
- Weeki Wachee River studies
Other NTB II Data Projects - Hydrogeologic

- Pasco Co. Groundwater Protection Study
- Offshore Springs Water Quality
- Cypress Bridge Monitoring - WQ
- IHM Model Development
Other NTB II Data Projects - Atmospheric

- ET Station Expansion
- GOES ET project
- NEXRAD-based Rainfall Data
Other NTB II Data Projects - Other

- Comprehensive Watershed Management Pilot Project
- Water Resource Atlas
Northern Tampa Bay II
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Routine MFL Tracking

- Annual Assessment and Reporting
- Ongoing Maintenance and Evaluation
- Testing of various methodologies of MFL assessment
NTB II MFL Projects
Lakes and Wetlands

- Statistics of Lake Stage
- WAP Database
- Assessment of WAP Methods
- Marsh MFL Methodology
- Revisit of Isolated Cypress MFL Methodology
NTB II MFL Projects
Rivers

- Withlacoochee River Feasibility Study
- WeekiWachee River Assessments
- Upper Hillsborough River Assessments
- Sulphur Springs Minimum Flows
- Lower Hillsborough River Re-evaluation
- Tampa Bypass Canal Minimum Flows
- Anclote and Alafia MFL Assessments
Northern Tampa Bay II
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NTB II Management Projects Augmentation

- Lake Augmentation - Hydrologic/WQ (USGS)
- Lake Augmentation – Biologic
  - Northwest Hillsborough Lakes Augmentation
  - Assessment of Augmented Lakes and Wetlands
  - Assessment of Augmented Lakes
  - Lake Sediment and Biota Assessments
- Wetland Augmentation (USGS)
- Section 21 Wellfield Rehydration
- Starkey Wellfield Rehydration Pilot
- Starkey Ecosystem Enhancement
NTB II Management Projects Augmentation (cont.)

- Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project
  - Beneficial Use of Wet Weather Reclaimed Water
NTB II Management Projects Structural / Other

- Morris Bridge Structures Modification
- South Pasco Berm Modification
- Cross Bar Ranch Restoration
- Lake Armistead Structure
- Rocky Creek Lake Enhancement
- Lake Roger, Lake Raleigh, and Lake Starvation Drainage Basin Assessments
Other Projects?
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Lake Starvation and Hillsborough 13

The graph shows the water levels of Lake Starvation and Hillsborough 13 over a period from 7/24/1998 to 5/28/2005. The blue line represents Lake Starvation, and the dark blue line represents Hillsborough 13. The water levels fluctuate significantly over time, with periods of decline and recovery.