

Portable Forward Pumps

February 12, 2015

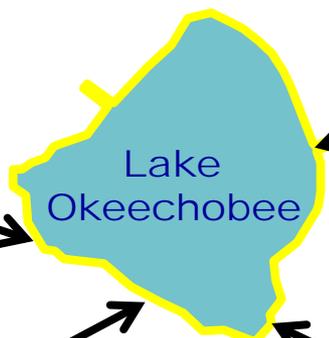
Lennart J. Lindahl, P.E.
Assistant Executive Director

Presentation Overview

- **Portable Forward Pump Installation and Operation**
- **Pumps' Role in Conveying Water Supplies**
- **Status of Application for Permit Renewal**

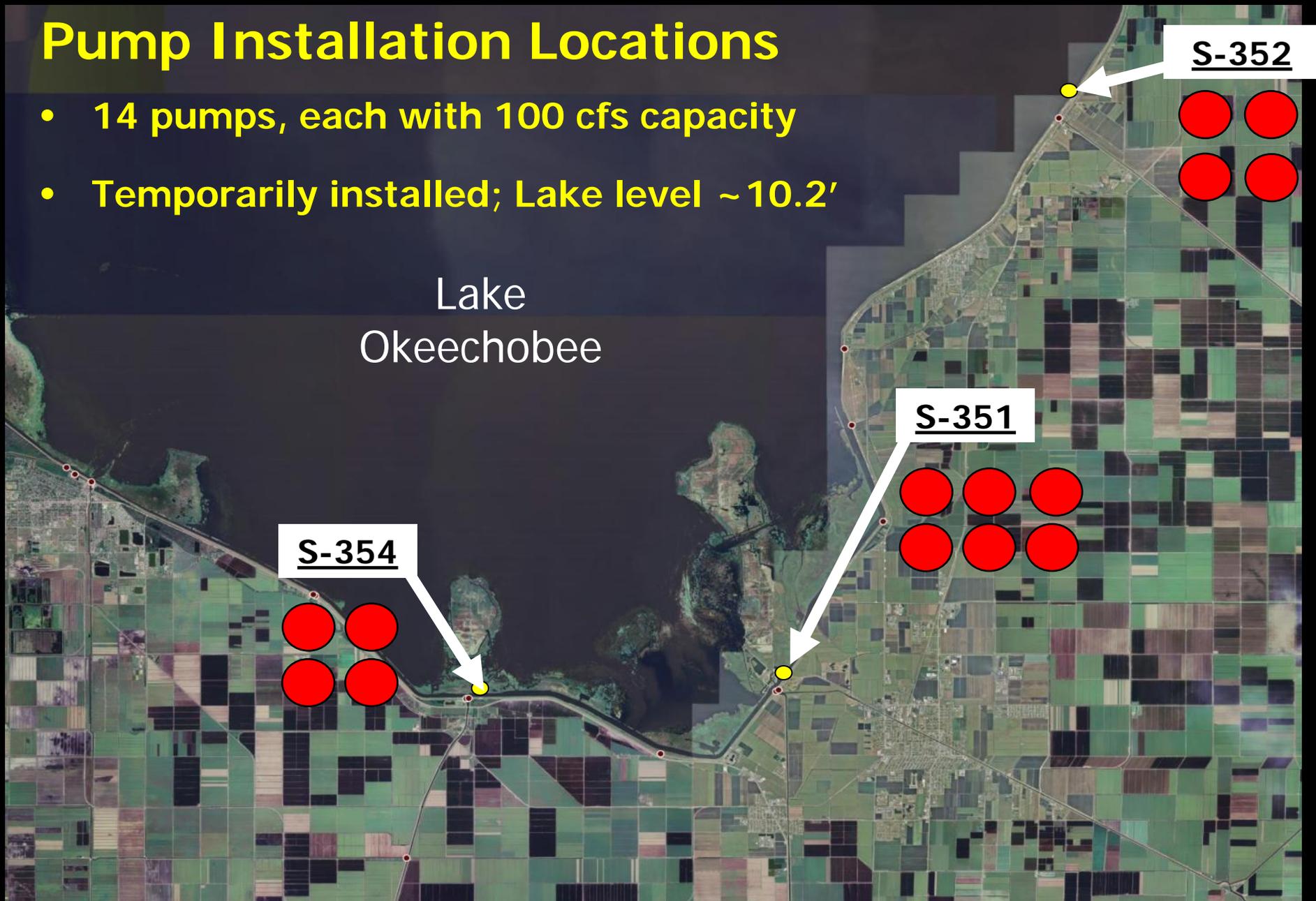


Lake Okeechobee – Major Water Control Structures (SFWMD & USACE)



Pump Installation Locations

- 14 pumps, each with 100 cfs capacity
- Temporarily installed; Lake level ~ 10.2'



Pump Installation and Operation

- **Normal operations: convey supplies south, via gravity, through gated spillways**
- **When Lake levels are low, water flows through spillways, but gravity capacity is insufficient to provide necessary conveyance**



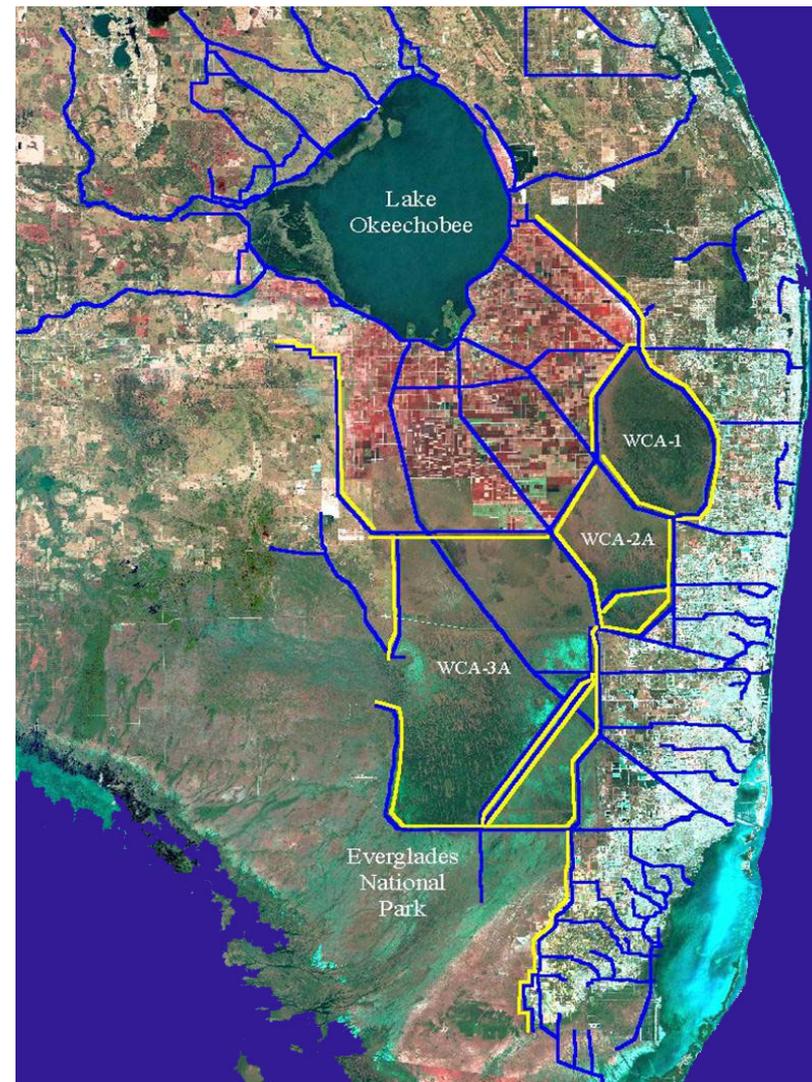
Pump Installation and Operation, cont.

- **LORS schedule reduces Lake levels; storage substantially diminished**
- **Temporary forward pumps = LORS Base Condition**
 - Mitigate water supply losses under LORS



Role in Conveying Water Supply

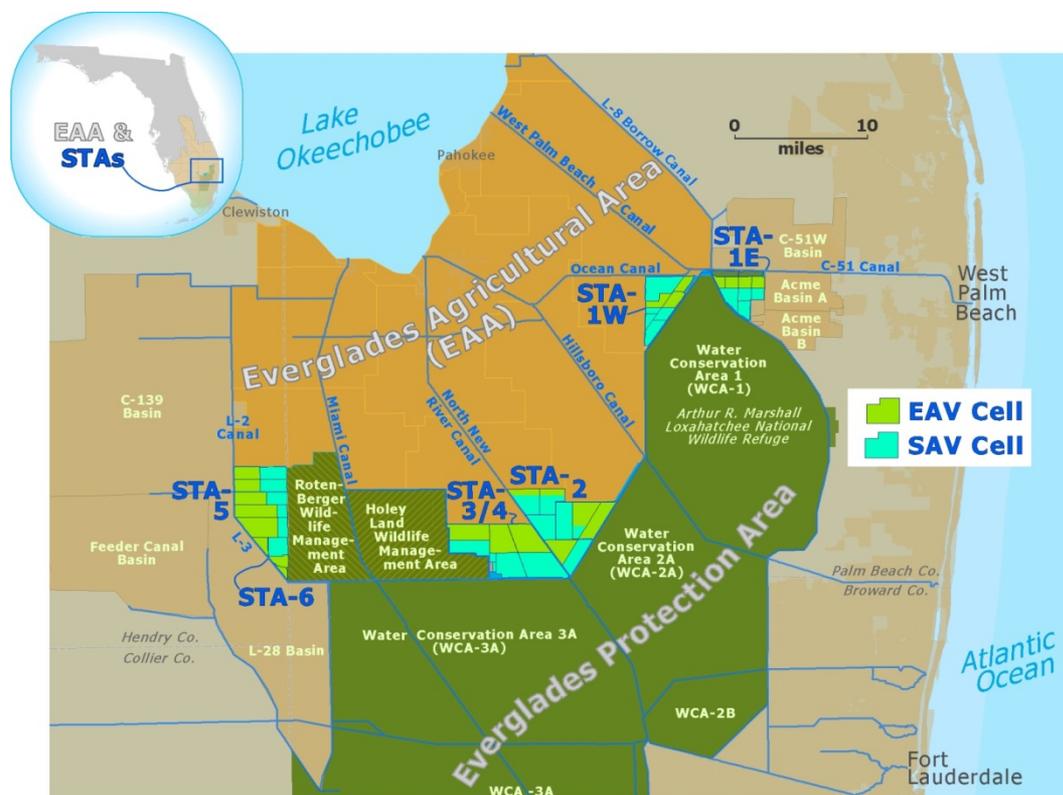
- **Overview of drought operations**
 - Typically Lake basins experience water shortage restrictions collectively
- **Lake Okeechobee – “Liquid Heart” of South Florida**
 - **C&SF Project – Lake provides water supply**
 - **Efficient storage**
 - **Centrally located; conveyance ‘avenues’ to variety of other resources and users**
 - **Lake has its own ecological considerations**



Role in Conveying Water Supply, cont.

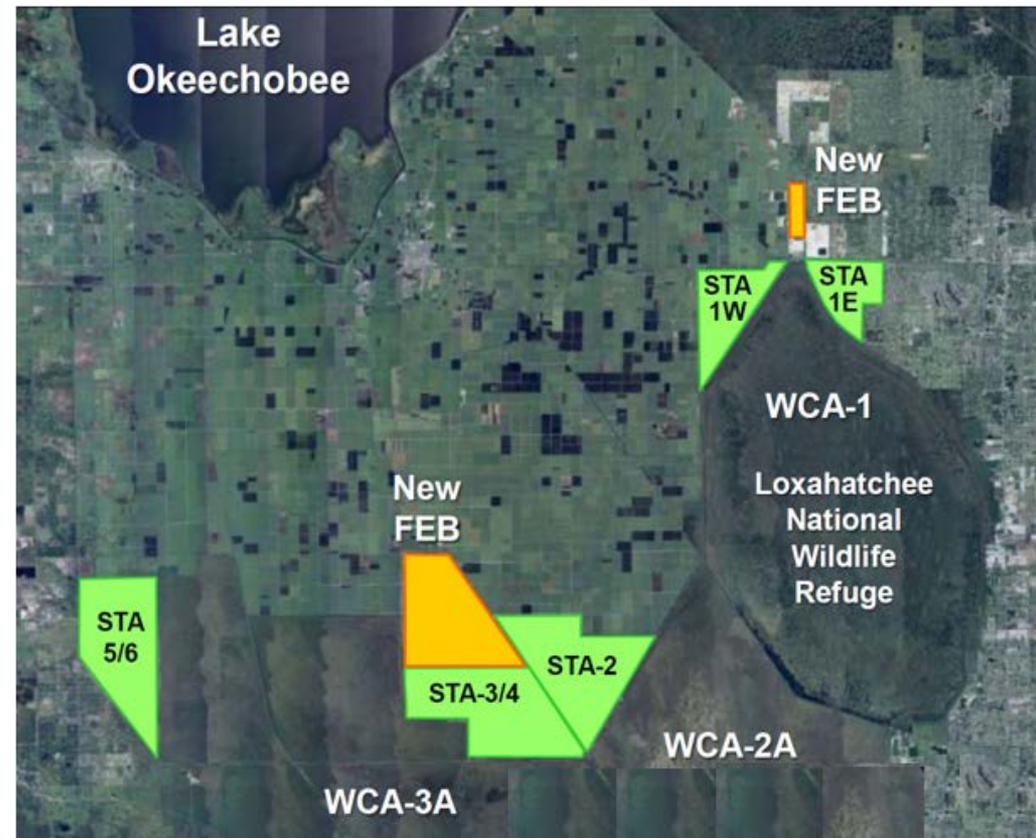
▪ Everglades Agricultural Area

- ~425,000 acres
- Diverse crops
- LORS assumes pumps will convey water when Lake below 10.2'
- Water shortage restrictions



Role in Conveying Water Supply, cont.

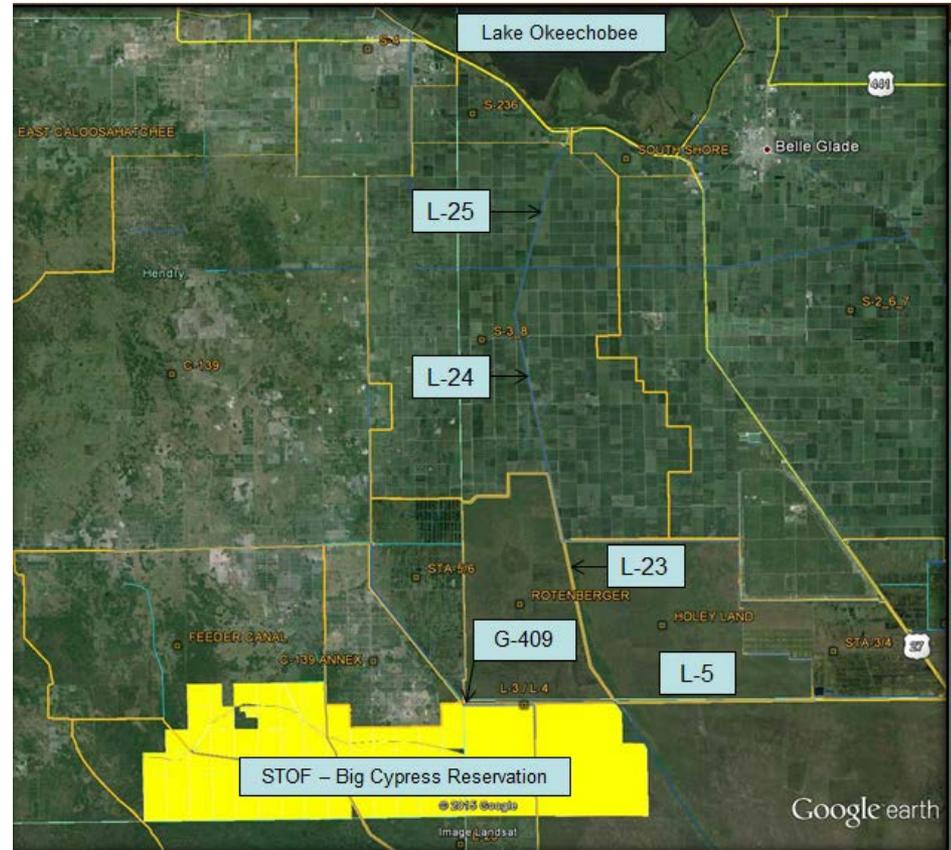
- **Stormwater Treatment Areas**
 - ~57,000 acres of treatment area
- **Recent USACE permits and planning actions also assume temporary forward pump operation**



Role in Conveying Water Supply, cont.

■ Seminole Tribe of Florida's Big Cypress Reservation

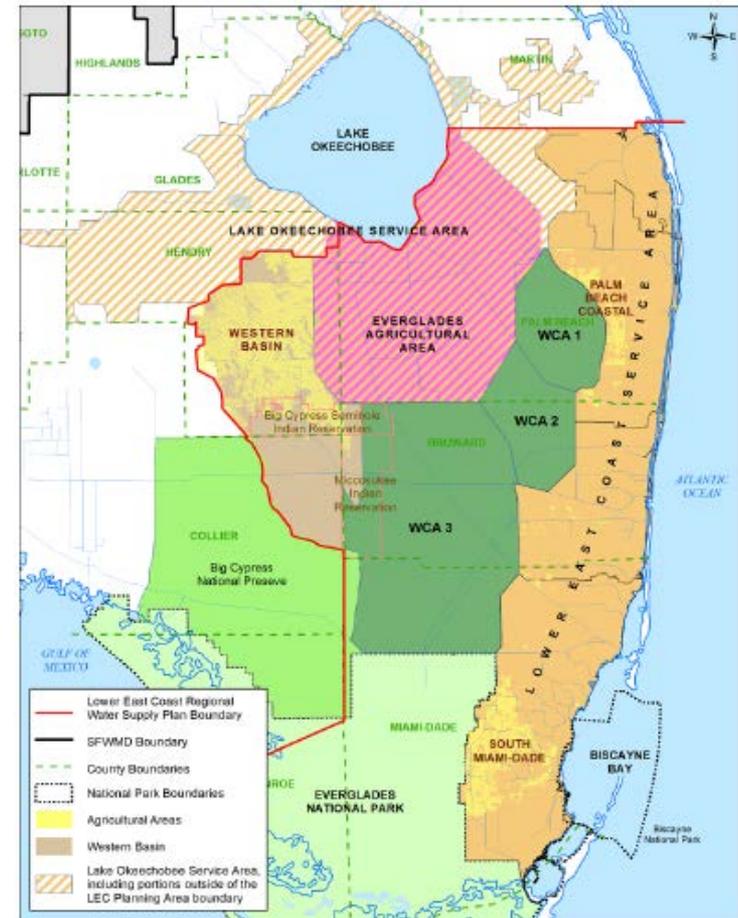
- Water Rights Compact establishes surface water entitlement (state and federal law)
- Quantified and delivered, in part, from Lake Okeechobee via Miami Canal
- Tribe uses water for a variety of purposes such as citrus and cattle
- Concerned water rights diminished by LORS



Role in Conveying Water Supply, cont.

- **WCAs and Lower East Coast Service Areas**
 - WCA regulation schedules have 'floor elevation'
 - No releases to coast when 'floor' reached, unless Lake replacement water provided
 - Coastal wellfields and salt water intrusion are linked to WCA releases

- **WCA fire protection**



Status of Pump Renewal Application

- §10 Rivers and Harbors permit issued for 5 years (Feb. 2007)
- Permit modified to reflect operation under LORS (April 2011)
- Request to extend permit filed (August 2011)
- Multiple permit extensions granted
- January 16, 2015 draft Biological Opinion received
- Permit extended for 120 days (June 8)


DEPARTMENT OF THE ARMY
ACKSONVILLE DISTRICT CORPS OF ENGINEERS
RESTORATION PROGRAM OFFICE
1400 CENTREPARK, SUITE 760
WEST PALM BEACH, FLORIDA 33401-7402

REPLY TO
ATTENTION OF

February 9, 2007

Special Project/Enforcement Branch
SAJ-2006-1969 (LP-TKW)

Ms. Carol A. Wehle
Executive Director
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Dear Ms. Wehle:

This is in reference to your request for a Department of the Army (DA) permit to perform work in or affecting waters of the United States. If you determine that the permit provided is acceptable in its entirety and you have chosen to proceed with the authorized activity, then upon recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) you are authorized under a Letter of Permission

to install and operate temporary forward pumps at water control structures S-351, S-352, and S-354.

Geographic Position:

S-351	Latitude	26.68385° North
	Longitude	-80.36418° West
S-352	Latitude	26.86407° North
	Longitude	-80.63237° West
S-354	Latitude	26.69855° North
	Longitude	-80.8067° West

The project must be completed in accordance with the enclosed construction drawings and attachments in 13 sheets, and the general and special conditions which are incorporated in, and made a part of, the permit.



Status of Pump Renewal Application, cont.

- **Staff review underway**
- **Variety of issues**
 - **Ecologic**
 - **Hydrologic**
 - **Legal**
 - **Policy**
- **Stakeholder outreach**



Next Steps

- **Prepare one District response to draft Biological Opinion and receive stakeholder input and review**
- **Meet with USACE and USFWS**
- **Continued updates to Board and stakeholders on status**



Questions