



Long-Term Solutions to Augment Water Supply for the Lake Okeechobee Service Area (LOSA)

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Water Resources Management

Long Term Water Supply Options

- **Agricultural water demands**
- **Temporary v. Permanent Pumps**
- **Agricultural Self-Supply**
- **Revised lake schedule – Herbert Hoover Dike repairs**



Agricultural Self-Supply

- Explore groundwater wells
 - Chlorides
 - Productivity
 - Regional water availability
- On-site storage



Long Term Water Supply Issues

- **Lake Okeechobee Service Area agricultural demands were analyzed in the recently updated Regional Water Supply Plan**
- **No net growth in agricultural demands anticipated in the Lake Okeechobee Service Area**
- **In fact, agricultural demands expected to decline slightly**



Water Supply Issues

- Revised Lake Regulation Schedule does not exceed water elevation of 17.5 ft.
- Revised schedule required until Herbert Hoover Dike repaired
- Estimated time to complete repairs unknown



Temporary Forward Pumps

- Cost \$1.5 million (already purchased)
- 1400 cfs capacity
- Deliveries to the south only
- Meets 45 % cutback in agricultural users to a Lake elevation of 7 ft.
- This demand met for all but 4 weeks under extreme drought
- Investigating upgrade potential
- Bonnet testing results due Friday
- Floating pump option preliminary report due December 18th



Bonnet Installation on Temporary Forward Pumps





Free surface vortex at the beginning of the test – Vortex disappeared as water level dropped and mixing increased in the pump sump.

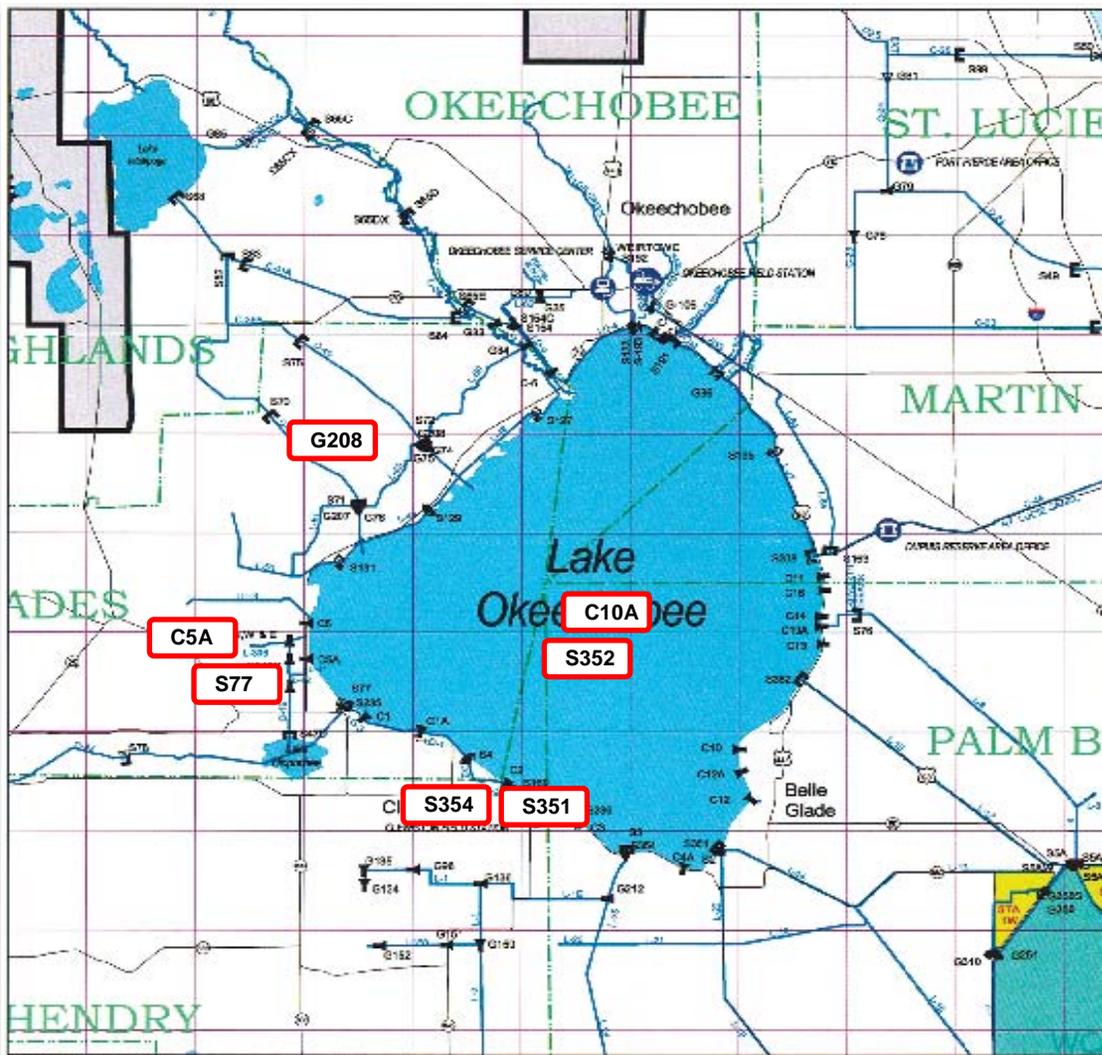
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Permanent Forward Pumps

- Estimate cost \$160 million
- Combined capacity of 5600 cfs
- Includes solution for Indian Prairie Basin
- Meets full 1:10 demands to a Lake elevation of 8 ft.
- Potential issues with increased duration of MFL exceedences (endangered species / permitting issues)



Site Map



LEGEND

SFWMD Structures

- ▲ Culvert
- ⌘ Lock
- ⚙ Pump
- ⚙ Pump w/Lock
- ⌘ Spillway w/Lock
- ⌘ Spillway
- ▽ Weir

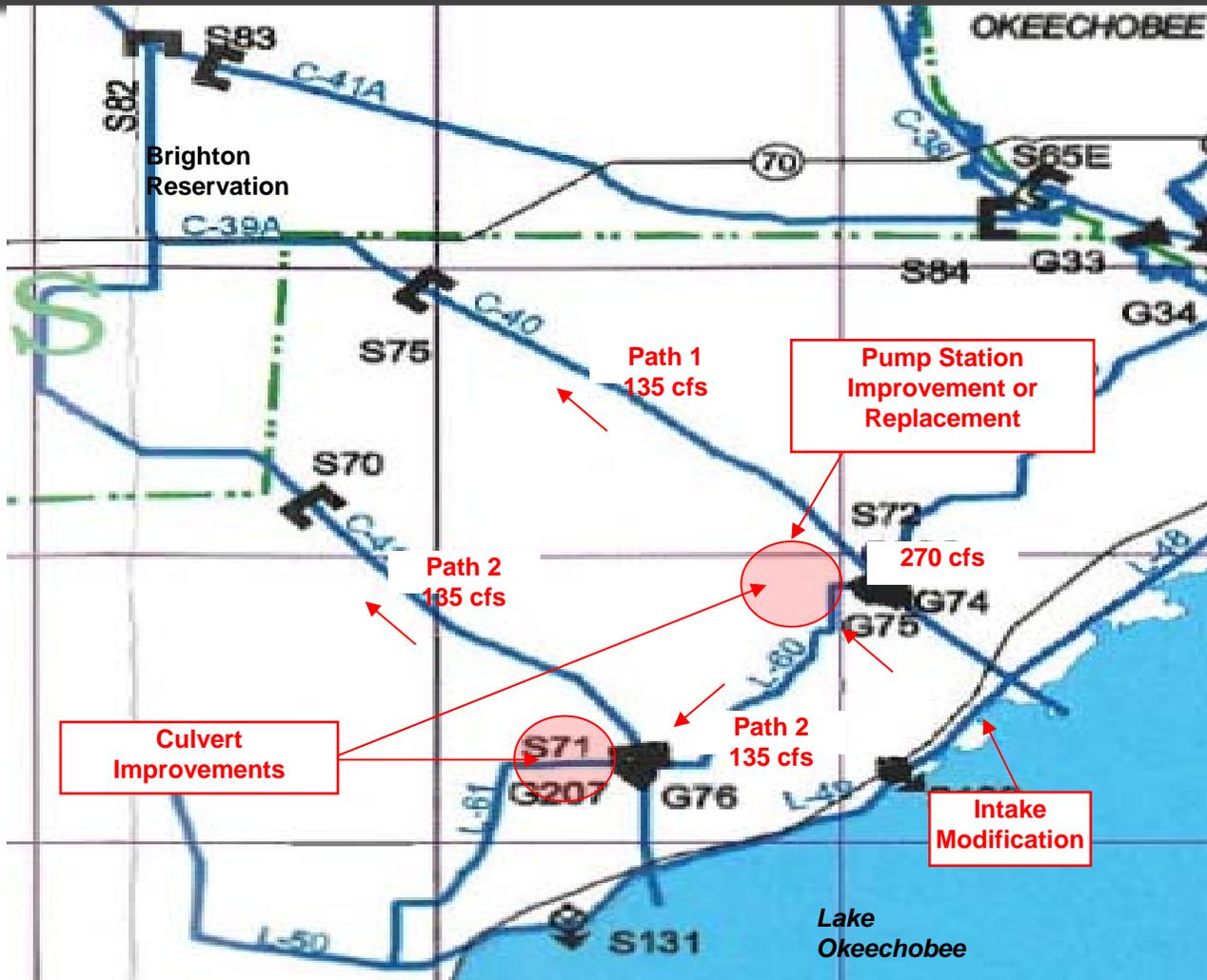
SFWMD Facilities

- Ⓜ Area Office
- Ⓜ Field Station
- Ⓜ Headquarters
- Ⓜ Lab
- Ⓜ Service Center

■ Stormwater Treatment Areas



Map G-208 Area



Recommended Next Steps

- **Work with Congressional Delegation to ensure adequate and continued funding for HHD repairs**
- **Examine feasibility of increasing capacity of temporary pumps through improved electrical supplies and use of barge-mounted pumps**
- **Implement portion of Permanent Pumps for the Indian Prairie Basin, at a cost of \$32 million**

