



Council Meeting 12-11-23

Wastewater Grants Update

New Grants & Council Resolution

Existing Grant update

Research and Comments Clarification

Project Priorities

Public Comment

New Grant Updates

- Applied for \$15 million grant to pay for connections, won't have an answer until end of February 2024
- Requested \$5 million as a direct Legislative appropriation, won't have an answer until June 2024
- Applied for \$500,000 for reuse extension won't have an answer until end of February 2024

Council Resolution 2023-12

- Passed 9-11-2023
- Mayor and Town Council listened at the August public meeting taking into consideration the concerns of the Community and the goal of reducing discharges into the Lakes.
- **Policy change: The Town will own, maintain and replace low-pressure pumps at each home.**
- This is a significant change in policy. It moves to treat all customers, regardless of the system installed, the same; substantially eliminating the difference to the homeowner between a gravity system and low-pressure.
- The grant the Town applied for and if received will cover 100% of the cost of installation. That includes the grinder system, abandoning the septic tank and connecting to electric if a low-pressure system. If a gravity system, it includes septic tank abandonment and connection to Utility main at property line.

REMINDER AND CLARIFICATIONS

- The GOAL is to reduce pollution in the Lakes
- The Mayor and Town Council gain nothing by doing septic-sewer conversions, other than the protection of the Lakes.
- As the Town Administrator and Utility Director, expanding the system only adds extra work for myself and my staff.
- Building only for new development is much simpler than retrofitting.
- The “Do Nothing” alternative is what has kept the Placid Lakes beach closed for 20 years and has led to the continuing pollution of the lakes.

Dr Canfields Paper: The Florida experience: time for a revitalized and restructured Clean Lakes Program

- “Can watershed NPS nutrient control programs provide timely compliance with CWA goals?” CWA- Clean Water Act
- “Stakeholders living on a lake or just recreating on the water are especially concerned with identifying causes of impairment and correcting problems in a timely manner. USEPA has emphasized watershed management (i.e., nutrient and sediment control) as the “long-term” (not defined) solution to eliminate causes of lake water quality deterioration.”
- “USEPA, FDEP, and others therefore define NPS pollution as the result of runoff from stormwater (rainfall and snowmelt) picking up and carrying natural and human-made pollutants from diffuse sources and depositing them into a waterbody.” NPS- non-point source

Dr Canfields Paper: The Florida experience: time for a revitalized and restructured Clean Lakes Program

- “If lakes are to be rehabilitated and/or protected to maintain designated uses, exclusive focus on watershed management of nonpoint source nutrients and associated regulatory actions should not be relied on to correct “impairments” in a timely manner. Management priorities should focus on actual causes of impairment and the most effective and efficient approaches for improvement.”

Table 1: Summary of Major Nutrient Contributors to Lake June-in-Winter

Source	Total Nitrogen Contribution (lb/yr)	Total Phosphorus Contribution (lb/yr)
Non-Point Source	23,584	3,200
Septic Systems*	142,926	7,007
Fertilizer	101,008	30,433

*Includes both known and likely septic tanks as provided in this report.

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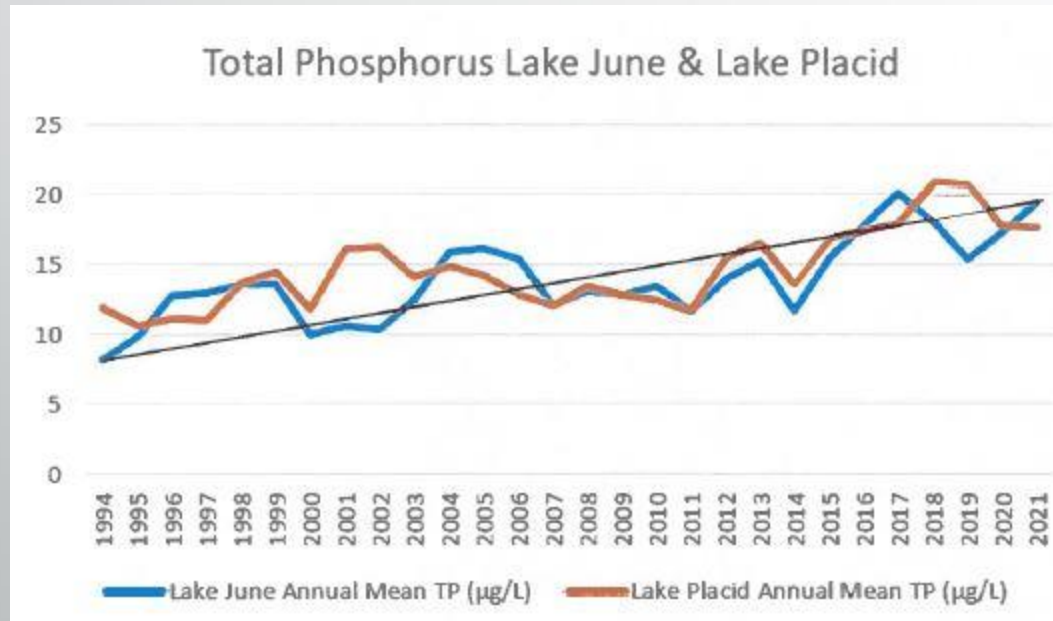
- “To correct lake impairments, there must be a philosophical **change from emphasizing the restoration of water quality to rehabilitation** (i.e., management) of lake systems to support designated uses (Cooke 2005, Duarte et al. 2009). **Restoration represents an ideal past** and the extreme on the continuum of management protocols (Duarte et al. 2009). While valuable as an ideal, restoration in most cases will be impractical, uncalled for, or even **impossible given population growth** (Cooke 2005, Duarte et al. 2009).”
- “The use of palliative approaches such as nutrient inactivation, dredging, aquatic plant management, invasive species control, oxygenation, improved circulation, or water level manipulation will be needed to rehabilitate a lake within an acceptable timeframe for lake user groups; **waiting decades or a century for improvements is clearly unacceptable.**”
- Septic to sewer is only part of the answer. We (the Community) need to be involved with SWFWMD, FWC, DEP and the County on using all the options available to "restore" our lakes.
- FWC and Highlands County are hosting a meeting Wednesday Dec 13 at 6:00pm at Bishop Park to talk about "in-lake" restoration. Everyone should attend.

Lake June and Lake Placid Graphs

“In Florida and elsewhere, the evidence is weak that watershed management can reduce nutrient inputs in a timely manner and is the best approach for obtaining designated uses of lakes. If eutrophication is the concern, the few lakes having statistically significant increases in TP, TN, and Chl concentrations and declining SDT should be targeted first and problems corrected.”

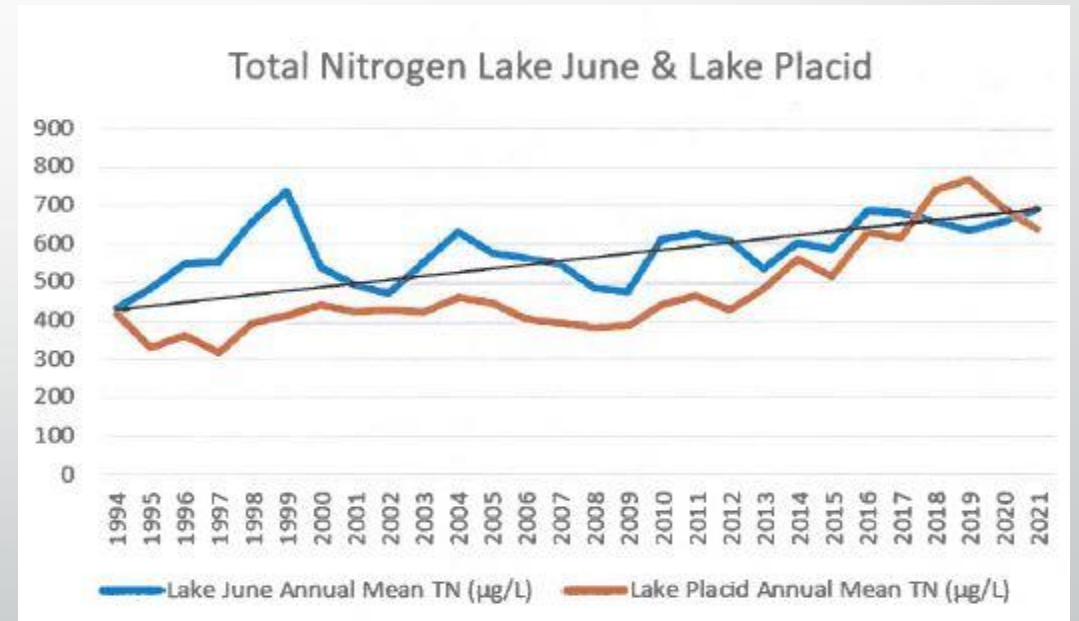
Phosphorus 120% increase

DEP IMPAIRED LINE 30



Nitrogen 63% increase

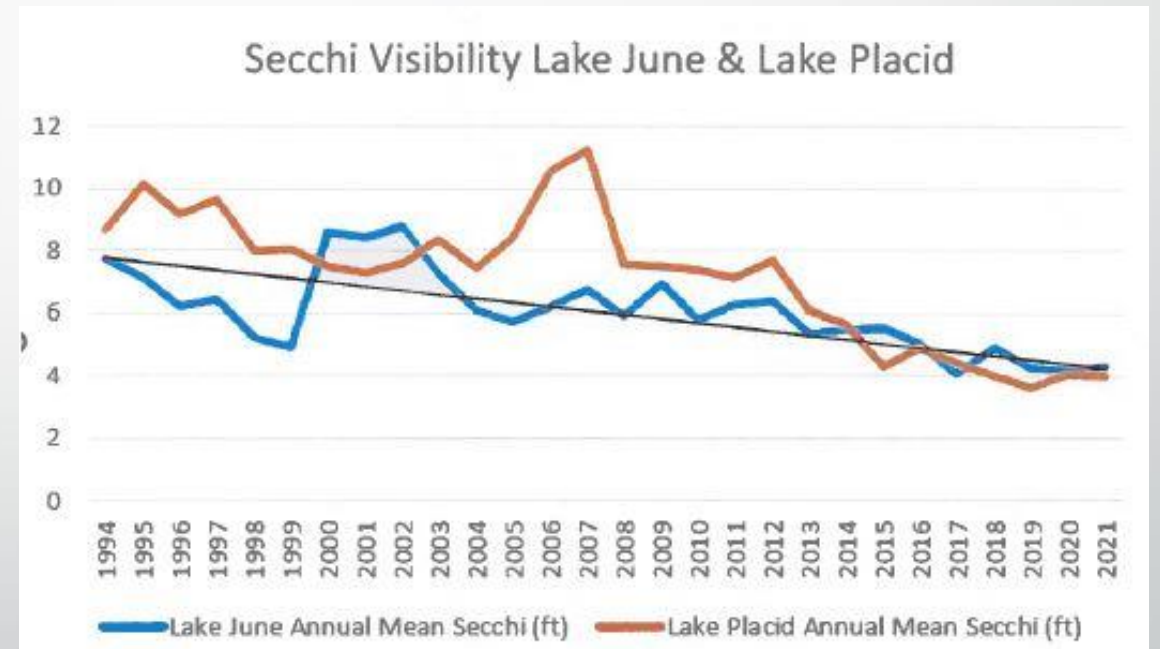
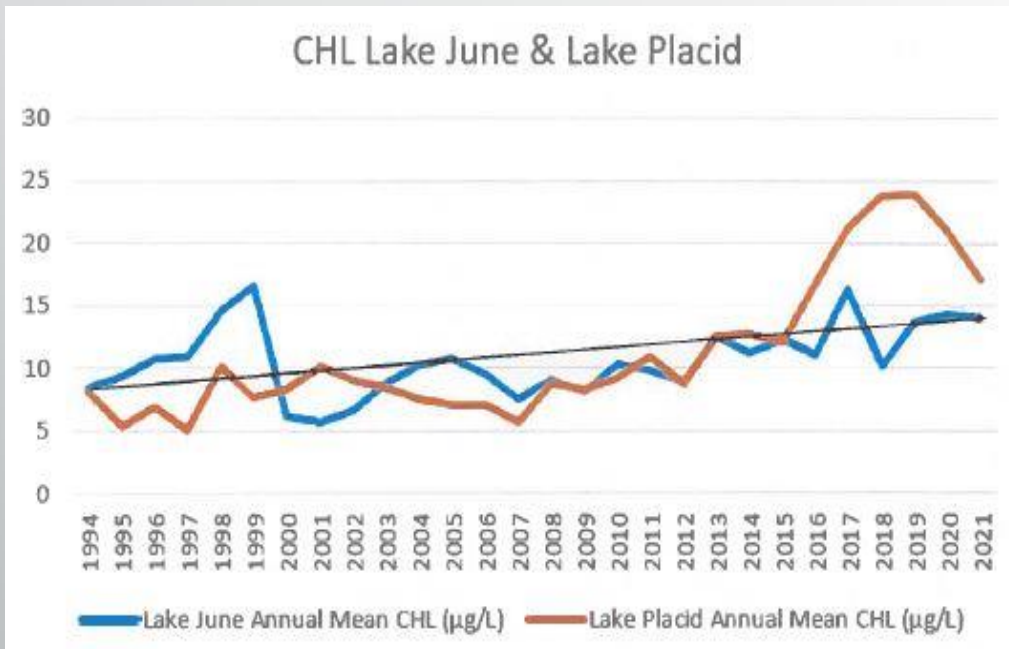
DEP IMPAIRED 510



Lake June and Lake Placid Graphs

CHL increase 62%
Chlorophyll over 6 is impaired

Clarity 47% decrease



DEP DATA FROM LAKE JUNE

- Lake June Water Quality Data taken from the Florida DEP Watershed Information Network (WINS)

- 2023- Acesulfame K- 0.1 ug/L Artificial Sweetener
- Primidone- 0.004 ug/L Seizure control
- Carbamazepine- 0.0008 ug/L Epilepsy and bipolar disorder
- Acetaminophen- 0.008 ug/L Tylenol- broken down in WWTP
- Caffeine- 18 ng/L

- 2021- Acetaminophen- 0.008 ug/L
- Sucralose- 0.44 ug/L Artificial Sweetener
- Primidone- 0.004 ug/L
- Carbamazepine- 0.0008 ug/L
- Acesulfame K- 0.1 ug/L
- **Acetaminophen can only come from Septic Tanks**

Dr Canfields Paper: The Florida experience: time for a revitalized and restructured Clean Lakes Program

- “The **emphasis now** and in the future must be on the implementation of **“do something” programs that correct impairments within the lifetimes of the stakeholders.** Integrated watershed and in-lake management techniques can work, but application of techniques should not be prevented by institutionalized misconceptions (parental affection; Chamberlain 1965), most often held by regulators, because of unfounded beliefs that watershed management can solve all lake problems (Wagner 2018)”

CLARIFICATIONS

- Statement - We are designing for Development (False). We have always been designing for septic to sewer conversions. We will have a little more “excess capacity” in the new plant than we have today once we accomplish the conversions that we are designing for.
- Statement- Plant is in the wrong place (False). The site is surrounded by Ag and Commercially zoned property and bordered by a railroad. The top of the hill provides an additional 75 foot of soil to absorb nutrients before impacting the ground water. As opposed to the current septic tanks that are generally less than 10 ft above ground water.
- The new plant removes 95% of Nitrogen and Phosphorus vs 30% for septic tanks (which go straight to the lake or groundwater). Then we move it further away from the Lake with reuse by irrigating median landscaping, and eventually the Cemetary, which absorbs even more Nitrogen and Phosphorus. The new plants effluent is also much cleaner than the lake water.
- Currently Lake June Hills (the closest residential development) has their own WWTP as part of their community.

GRANT PROJECT PRIORITIES

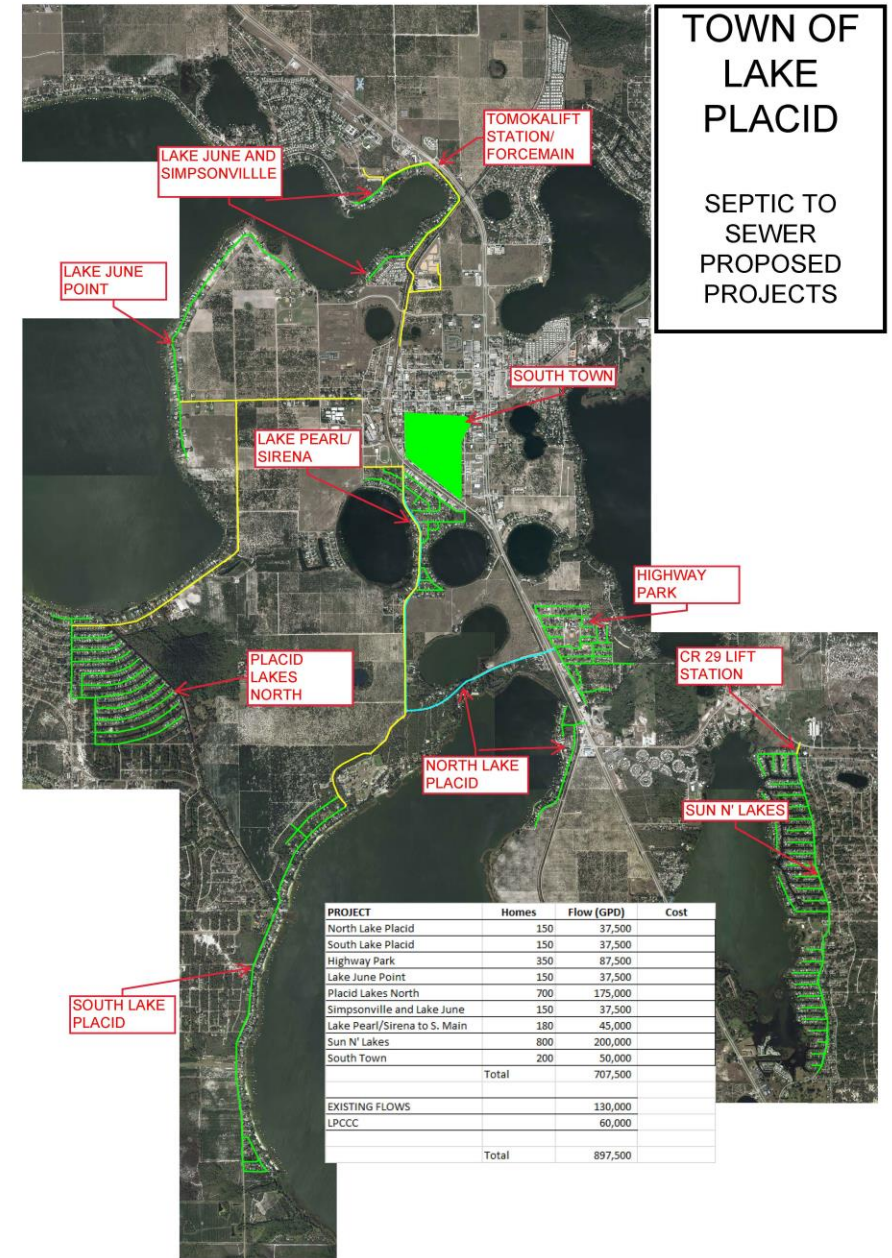
- Due to continued cost increases and ongoing inflation issues. It is time to further set priorities and make decisions on design and bidding of projects.
- This does not commit the Council to construct of any of the projects.
- The current project design is for the backbone of the system and does not require anyone to connect.
- Some areas will be available for a low-pressure connection based on the location of the force main from one of the WWTPs- CR17N and Lake Mirror Drive, part of Lake Drive East, regardless of any other projects.



GRANT PROJECT PRIORITIES

- The Council still has the authority to further reduce projects to fund the purchase and installation of grinder pumps even if the next grant is not received.

ORIGINAL PROJECTS



BASE PROJECT PRIORITIES

PRIORITY PROJECTS	PROJECT	COST ESTIMATE updated	
	Engineering and Inspection Services	\$	4,000,000
1	1 MGD Waste-Water Treatment Plant	\$	21,000,000
2	Tomoka Lift Station and Force Mains	\$	2,000,000
3	CR29 Lift station and force main	\$	750,000
4	Sirena and Main St Lift Stations	\$	600,000
	Total	\$	28,350,000
	Projected Remaining for Line extensions	\$	11,650,000

UTILITY COMMISSION RECOMMENDATION

The Utility Commission had a good 1 ½ hr discussion about the projects and what to recommend to the Council.

There were multiple motions made that died for lack of a second.

There was a motion made and seconded but was later withdrawn.

FINAL MOTION – Moved by Mr. Rancourt, seconded by Mr. Draper, to recommend Lake Sirena and Lake Pearl to the Town Council as the project area with a combination of gravity and low-pressure systems.

Project estimate \$9,460,000 with remainder as contingency

Roll Call Vote: Yes – Rancourt, Draper, Brewer

No- Elliott, Eberhardt - Motion Carried.

UTILITY COMMISSION

- One of the most notable points made by Utility Commission member Tal Rancourt, who is an expert in the construction and installation of Utilities and roads, and agreed with by Utility Commission member Pam Brewer, who has intimate knowledge of the Placid Lakes water utility, was:
- Due to the amount of muck along the canal roads in Placid Lakes installing gravity sewer lines is virtually impossible.
- Leaving a low-pressure system as the only viable option.

IMPAIRED LAKES AS A PRIORITY PROJECTS RECOMMENDATION

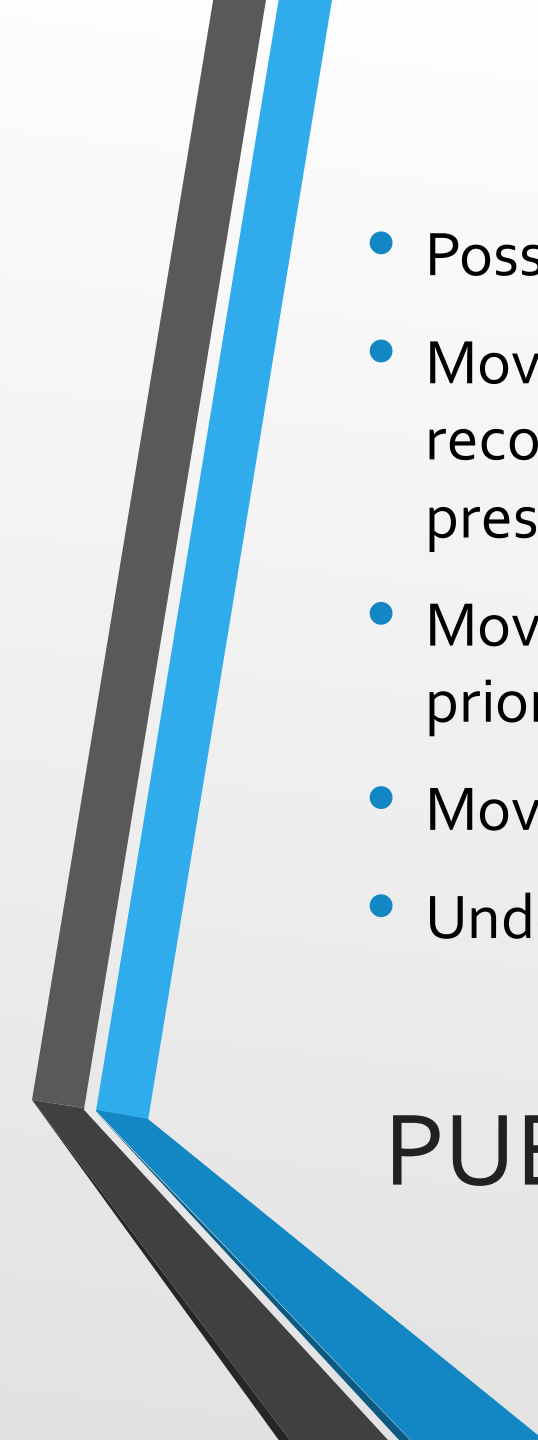
Projected Remaining for Line extensions **\$ 11,650,000**

Areas to prioritize for design (low-pressure) completion and bidding

North(East) Lake Placid	\$ 4,050,000	
Placid Lakes	\$ 6,900,000	
Lake June Rd	\$ 690,000	
South Lake Placid	\$ 3,550,000	
Total	\$ 15,190,000	

Recommended removal of these projects from the bid process

	Low pressure	Gravity
Simpsonville/Lake June Hills	\$ 1,090,000	
Lake June Point	\$ 1,650,000	\$ 5,750,000
Lake Pearl/Sirena	\$ 4,860,000	\$ 9,460,000
South Town (gravity already designed)		\$ 7,400,000

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- Possible Council Motions:
 - Move to adopt the base priorities as listed and the Utility Commissions recommendation for Lake Pearl and Sirena as a combination gravity/low-pressure project and excluding the remaining projects.
 - Move to adopt the base priorities as listed and the "Impaired lakes as a priority" list- low-pressure design and excluding the remaining projects.
 - Move to adopt whatever projects the Council wishes.
 - Understanding that this is all contingent upon agreement by DEP"

PUBLIC COMMENT AND COUNCIL DECISION

North Lake Placid	150	30,000	-	Low Pressure	\$ 4,050,000
South Lake Placid	150	30,000	-	Low Pressure	\$ 3,550,000
Highway Park	350	70,000	-	Gravity	\$ 10,450,000
		70,000	-	Low Pressure	\$ 3,950,000
Lake June Point	150	30,000	-	Gravity	\$ 5,750,000
		30,000	-	Low Pressure	\$ 1,650,000
Placid Lakes North	700	140,000	-	Gravity	\$ 24,900,000
		140,000	-	Low Pressure	\$ 6,900,000
Simpsonville and Lake June	270	54,000	-	Low Pressure	\$ 690,000
	570	114,000	-	Low Pressure	\$ 1,090,000
Lake Pearl/Sirena to S. Main	180	36,000	-	Gravity	\$ 9,460,000
		36,000	-	Low Pressure	\$ 4,860,000
Sun N' Lakes	400	80,000	-	Gravity	\$ 17,800,000
		160,000	-	Low Pressure	\$ 2,600,000
South Town	200	40,000	-	Gravity	\$ 7,400,000
CR 29 Lift Station		20,000			\$ 600,000
Tomoka Lift Station and FM		60,000			\$ 1,700,000