

Sacheen Lake Sewer & Water District Mission Statement

The Sacheen Lake Sewer and Water District Board will represent the Sacheen community as a whole in sustaining the natural environment. In order to protect lake and well water quality, an effective, environmentally safe and economical whole lake sewer system will be developed and maintained. The Board will continue to focus on lake level, water quality, education on topics of importance that impact the Lake, and care of Myers-Harter Sanctuary.

As a junior taxation district representing Sacheen Lake, the Sewer and Water District Board will lobby local, state, and federal agencies to develop regulations and obtain funding to support the Mission.

Agenda

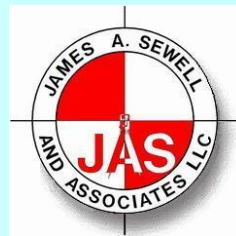
- Introduction- Peggy Johnsen
- Progress Update – Perry Pearman
- Project Status- Eric Eldenburg
 - Cost Estimates & Funding Plan
 - Project Timetable
- Hookup Information – Gary Garrett
- Local Improvement District – Laura Mackaloon
- Issues & Concerns - Board - Q&A

Thank you to Ladies of the Lake for the refreshments today

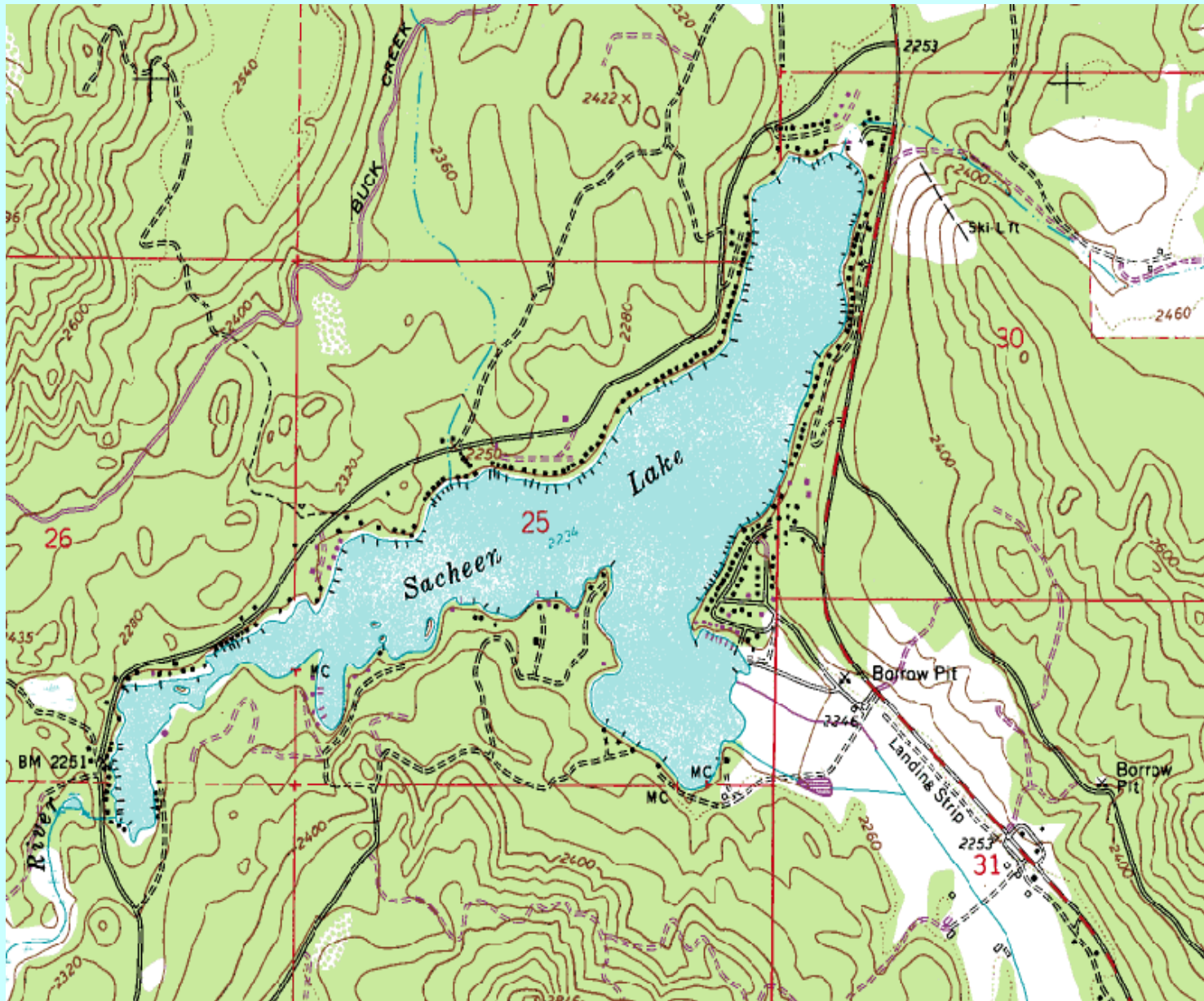
**SACHEEN LAKE SEWER & WATER DISTRICT
INFORMATIONAL MEETING
August 25 & 28, 2010**



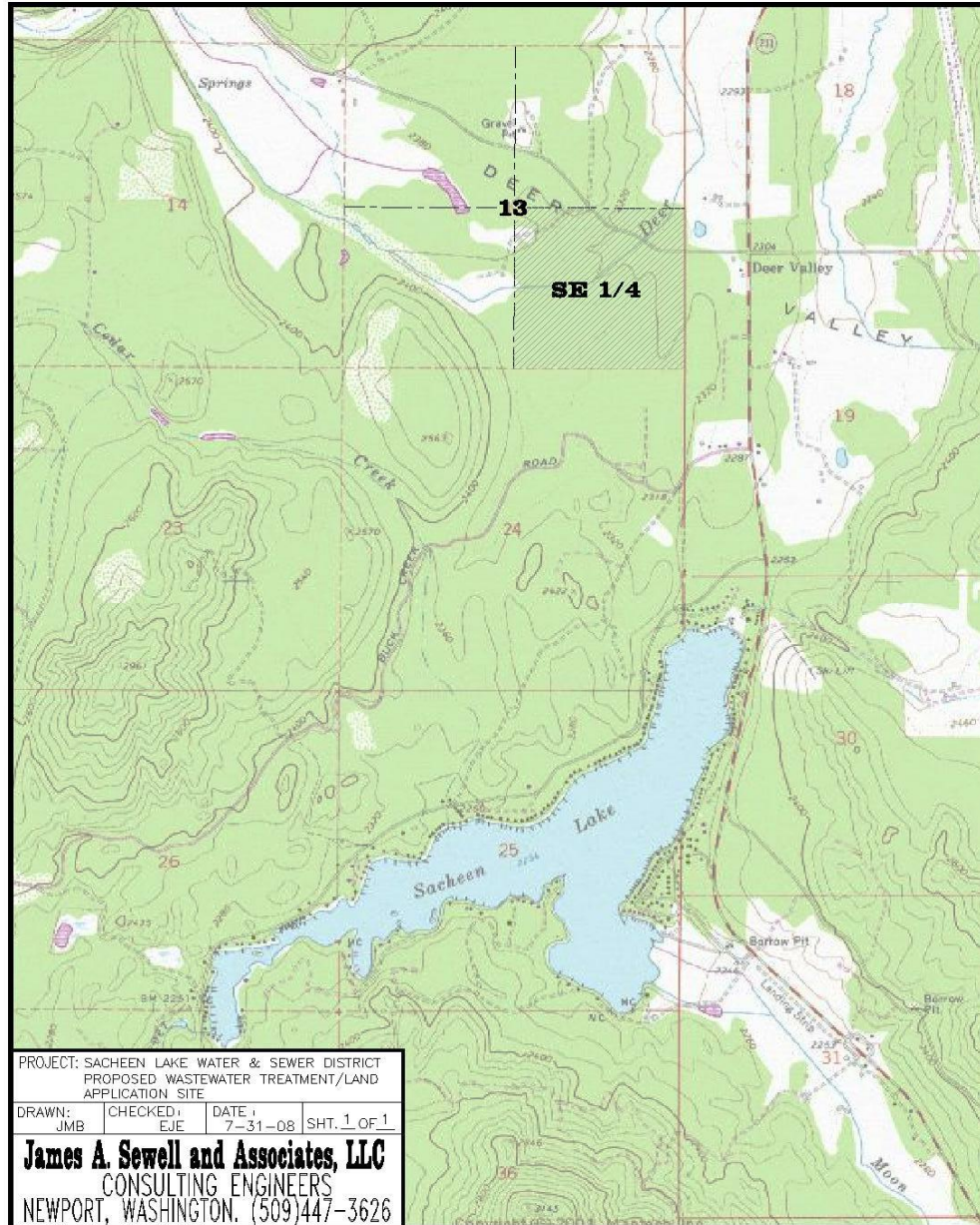
**JAMES A. SEWELL & ASSOCIATES, LLC
SPOKANE AND NEWPORT, WASHINGTON**



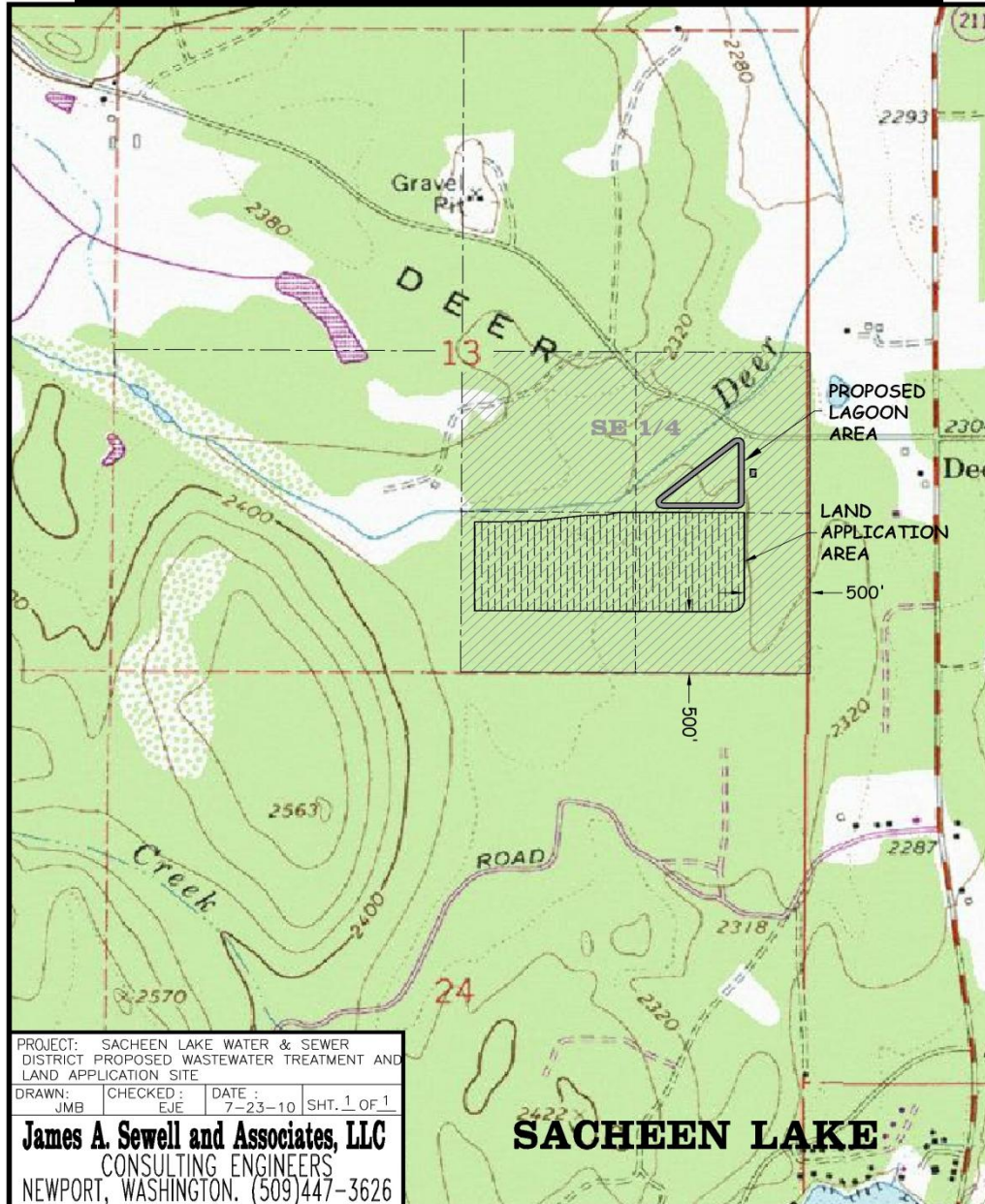
TOPOGRAPHY AND HOUSING DENSITY AROUND THE LAKE



Proposed Treatment Site Location



Proposed Treatment Disposal Site Plan



PROJECT: SACHEEN LAKE WATER & SEWER DISTRICT PROPOSED WASTEWATER TREATMENT AND LAND APPLICATION SITE

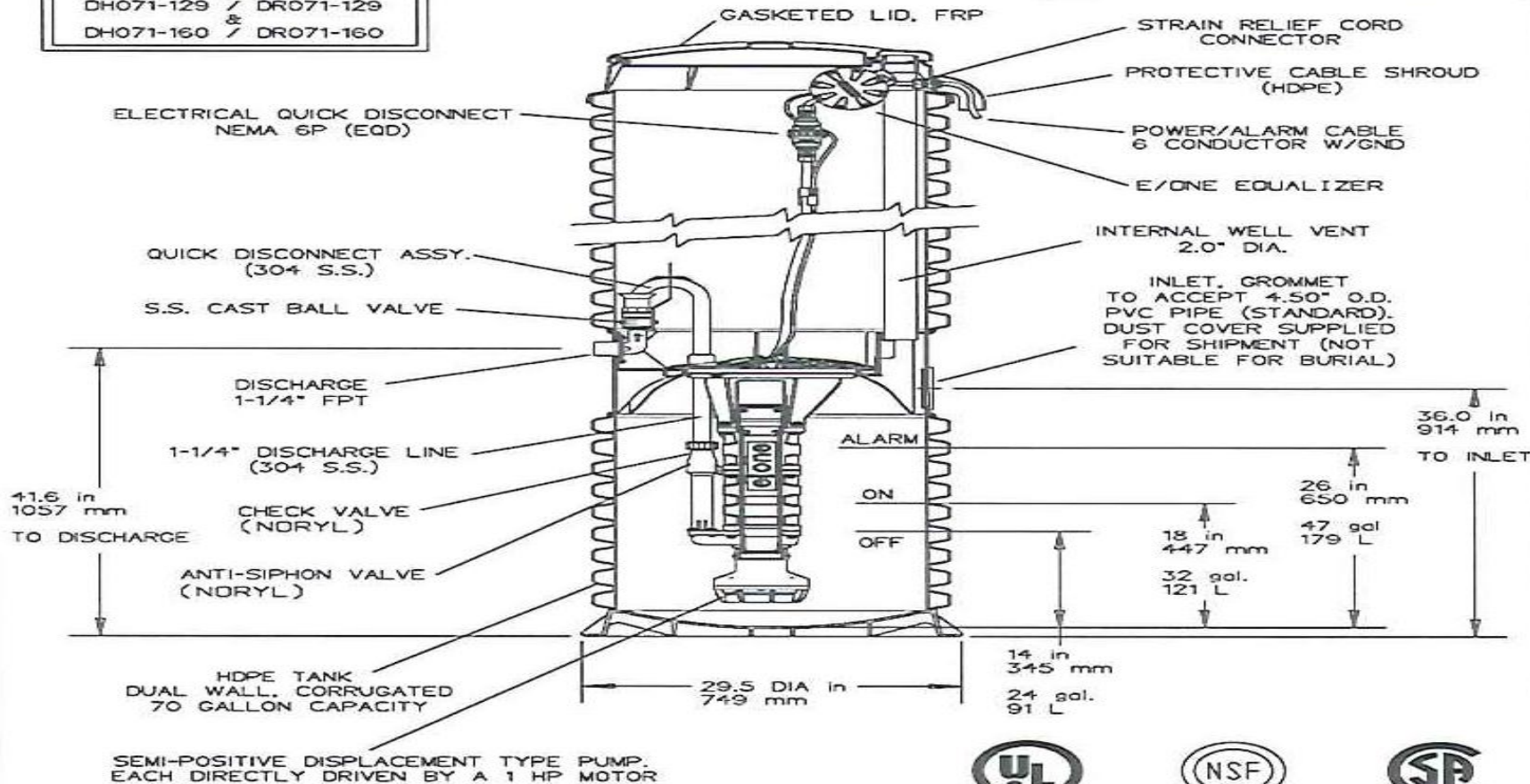
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James A. Sewell and Associates, LLC
 CONSULTING ENGINEERS
 NEWPORT, WASHINGTON. (509)447-3626

SACHEEN LAKE

FIELD JOINT REQUIRED
FOR MODELS
DH071-129 / DR071-129
&
DH071-160 / DR071-160

OPTIONS : DH071 (HARD WIRED LEVEL CONTROLS)
 DR071 (WIRELESS LEVEL CONTROLS)



CONCRETE BALLAST MAY BE REQUIRED
SEE INSTALLATION INSTRUCTIONS
FOR DETAILS



AD	CH	04/27/09	B	
DR BY	CHK'D	DATE	ISSUE	SCALE
e one SEWER SYSTEMS				
MODEL DH071 / DR071 DETAIL SHEET				
NA0050P02				

SACHEEN LAKE DESIGN FLOWS

Using the numbers derived from previous sections, the following will be the design for the Sacheen Lake system:

	Sacheen Lake	
	Summer Flows	Winter Flows
Future Residential Connections	450	225
Users per connection	2.8	2.8
Population	1260	630
Approximate per Capita flow	70 gpd	70 gpd
Per residence flow	200 gpd	200 gpd
Average Daily Flow	90,000 gpd	45,000 gpd
Influent BOD	350 mg/l	350 mg/l
Influent Total N	35 mg/l	35 mg/l

SACHEEN LAKE DESIGN FLOWS CONTINUED

Using the numbers derived from previous sections, the following will be the design for the Sacheen Lake system:

Parameter	Summer	Winter
Average Daily Flow	90,000 gpd	45,000 gpd
Total Flows	13,680,000 gal	9,585,000 gal
Effluent BOD	20 mg/l	20 mg/l
Max Dax Effluent BOD	15 lbs/day	7.5 lbs/day
Effluent TN	15 mg/l	15 mg/l
Effluent TN after 25% evaporation/volatization	11.3 mg/l	N/A
Effluent TN after 25% evapotranspiration	N/A	11.3 mg/l
Nitrogen Loading	1,289 lbs/summer	903 lbs/summer

Cost Estimates and Funding

- Construction Loan, PWTF pays for all of the following:
 - Comprehensive Plan Update & WFP
 - Purchase Land
 - Geotechnical Investigation
 - Project Design
 - Project Plans & Specs
 - Project Construction

\$9,500,000 (20yr @ 2%)

Backbone System Estimate

- Estimate Does Not Include Costs for Individual Pump Stations and Service Lines
- Backbone System Estimate Split Amongst 500 Lots Equally

• Mobilization	\$ 270,000
• Sewer Collection and Transmission	\$ 2,044,900
• Treatment/Storage Lagoons	\$ 1,751,250
• Forest Irrigation System	\$ 775,000
• <u>Property, Allied Cost, Contingency, Tax</u>	<u>\$ 2,210,745</u>
• Project Cost	\$ 7,051,895
• Assessment Per Lot	\$ 14,100
• Monthly Capital Assessment	\$ 71.86

ON-SITE IMPROVEMENTS ESTIMATE – DEVELOPED LOTS

- Costs to install service lines and pumping facilities on each lot
- Costs are split amongst 320 lots equally
- Project Cost \$ 2,393,114

- On-Site Assessment Per Lot \$ 7,480
- Backbone System Assessment Per Lot \$ 14,100
- Total Assessment Per Lot \$ 21,580

- Monthly Capital Assessment Per Lot \$ 110.00
- Monthly O&M Assessment Per Lot \$ 15.00
- Total Monthly Assessment Per Lot \$ 125.00

OPERATION AND MAINTENANCE

- Land Application Discharge Using the Lagoons and Spray Field at Stimson Site
- Labor \$ 26,000
- Supplies \$ 3,600
- Utilities \$ 9,500
- Repair and Maintenance \$ 10,000
- Testing \$ 3,500
- Administration \$ 5,000
- Total \$ 57,600
- O&M Split Amongst 320 Lots \$ 15.00/mo

Project Status & Timetable

- Apply for PWTF Construction Loan early summer 2010.
- Comprehensive Plan and Facility Plan to be Completed late-summer with Alternative using Stimson Property
- LID Hearing with Objections Received to be held in October 2010

Project Status & Timetable - Continued

- Assume LID Passes
- Proceed with Property Purchase and Design when Funding is Offered, expected winter 2010
- Detailed design of individual hookups to be developed with owner participation – Summer 2011
- Bid Process – Early Winter 2012
- Commence Construction of Treatment Plant & Collection Facility – April 2012
- Complete Installation & Startup – September 2013

Hook up information

- **Full Hookup Assessment:**
 - Primary structure
- **Stub in Hookup Assessment:**
 - Bare lot for future development

Hook up information

- **Partial Hookup Assessment:**

- Additional structure that includes established plumbing already hooked into the existing septic system on the lot (i.e. showers, toilets, sinks, laundry, etc.).
- The additional increase in assessment fee will be determined at a later time (the intent of the board is to cover the additional infrastructure cost in a fair manner).
- Future renovations and/or additional structures requiring plumbing will require additional assessment.

Hook up information

- **Multiple Hookup Assessment: (Resorts)**
 - Primary structure(s) has a full hookup assessment.
 - One full hookup assessment for each required additional pump.
 - Follow any county guidelines that may be developed.

Homeowner Responsibilities

- A minimum of a 20 amp 220 volt and a 15 amp 110 volt breakers need to be available to hook up at owner's expense for single pump systems
- Multiple pump systems will need additional breakers
- Homeowners will need to be willing to share a pump unit with a neighbor
- Households providing power to a pump that is shared will receive a credit on the M & O

Homeowner Responsibilities Continued

- Provide documentation of where the sewage outflow comes from the primary structure and where the septic/holding tank is located
- Work with engineers to locate the pump site placement
- Easement/access needs to be allowed for installation and maintenance

Local Improvement District Info

- Assisting communities in financing capital improvements
- LID formation process will begin with a resolution declaring the District's intent to form an LID
- At least 15 days prior to the hearing date, notice will be mailed to all property owners

LID Information continued

- Notice of the hearing date will be published in two consecutive issues of the paper, the first being at least 15 days prior to the hearing date.
- At the hearing all property owners who have submitted written protest have an opportunity to be heard. After the hearing there is a ten day period in which the formation of the LID may still be protested.

LID Information continued

- If within the ten days of the hearing, the District does not receive written protests of more than 40% of the area to be assessed, the LID can be formed.
- At that point final engineering is completed, plans and specifications for the project are finalized and the project goes out for competitive bid.

LID Information continued

- Preliminary Assessment Roll developed.
- Confirmation of Assessment Roll
- Final assessment: Assessment may be paid in full within thirty (30) days if the property owner wishes to avoid a monthly assessment payment.
- The Maintenance and Operation (M&O) fees for the system would still be billed for those connected to the system

LID Information continued

- Senior Citizen/Disabled assessment deferrals
- M&O is strictly for sewer service
- Excess levy
- No up-front fees for hook-up

Issues and Concerns

- Why?
 - To protect the lake, prevent degradation
 - Only ~14% of homes have up-to-code systems
 - Nearly 20% of homes have NO septic
 - About 23% have known out-of-date septic
 - 51% of homes have unknown discharge systems

Issues & Concerns

- Property impacts?
 - Connections to houses are ~1 ¼ “ lines (think “directional drill”, not “back-hoe”)
 - E1 pump station about the size of 55-gallon drum
 - Existing septic tank can be decommissioned by filling with gravel, not necessarily removal

Issues & Concerns

- Cost?
 - Replacement of septic with code system has a comparable cost and a limited life
 - Many homes have no capability for septic, therefore no viable alternative
 - District is making every effort to control costs of the project

Board of Commissioners:

Peggy Johnsen - Chair

Gary Garrett

Perry Pearman

Sheila Pearman- Mgr-Sec.

Sewer & Water linked on

www.sacheenlake.com