

Greater Woods Bay Wastewater Planning

GWBSC Mission Statement: The GWBSC is developing, in conjunction with a qualified engineering firm, a cost-effective and efficient wastewater treatment system. The system will be designed to protect the water quality of the surrounding aquifer, the waters of Flathead Lake, and the health and well-being of the people and property of the Greater Woods Bay area, from the day of operation to well into the future.

Meeting Agenda

- 1. Recent History***
- 2. Greater Woods Bay Planning Area***
- 3. Life Cycle of a Wastewater Project***
- 4. Steps to a Preliminary Engineering Report (PER)***
- 5. Financing and Funding Projects***
- 6. Project Alternatives***
- 7. Sanitary Survey Results***
- 8. The Next 6-12 Months for the Process***
- 9. Neighborhood Involvement***
- 10. Community Planning***

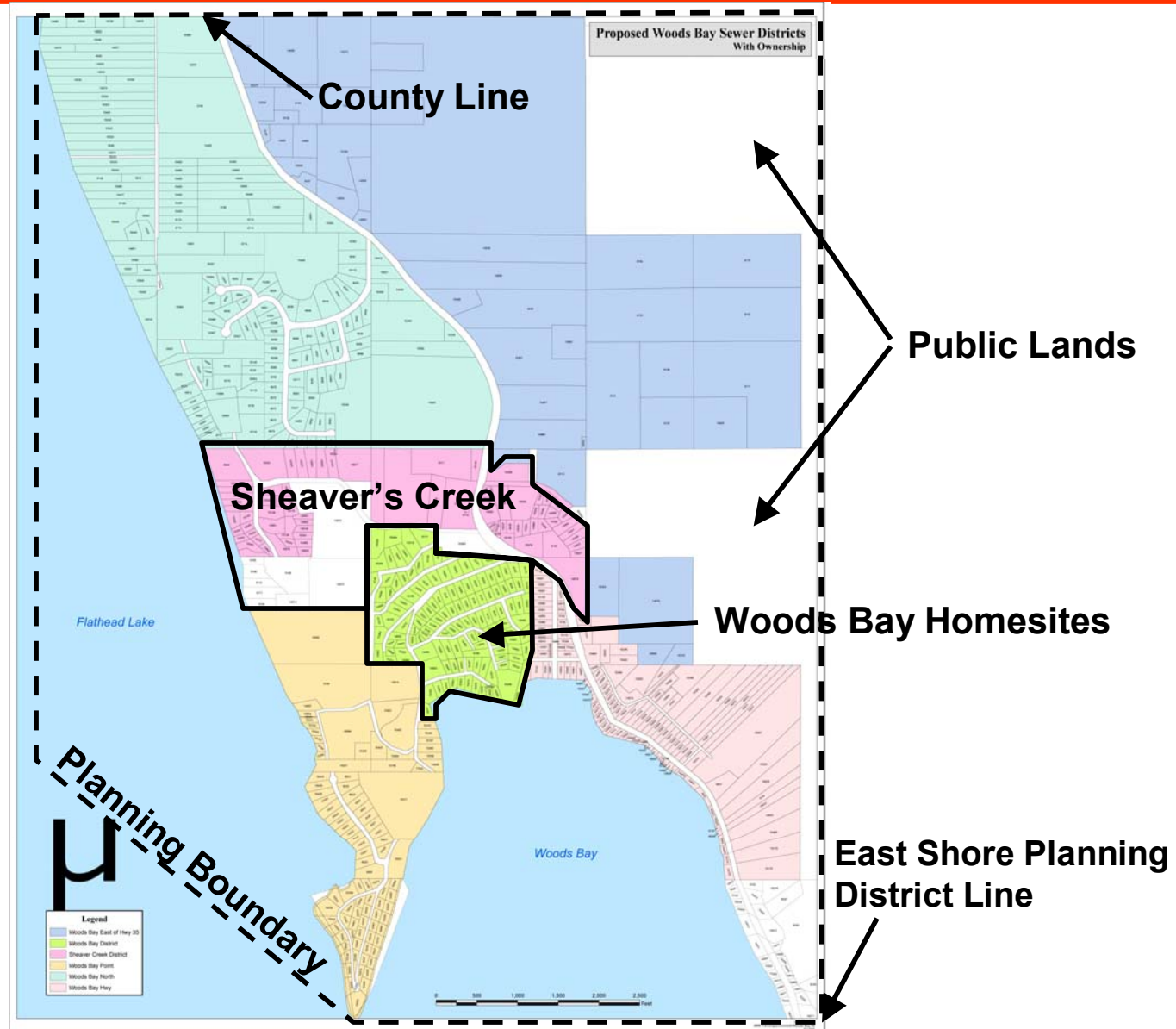


Recent History of Community Water and Sewer Systems

- Sheaver's Creek W&S District formed 2000***
- Woods Bay W&S District formed 2002***
- First Sewer Meeting 2002***
- District Consolidation Proposal 2004***
- Public Meeting for Expanded Service Area 11 Jan 05***
- GWBSC Formed 19 Mar 05***
- GWBSC Met w/ Funding Agencies 07 Jun 05***
- Contract for Preliminary Engineering Report (PER) Sept 05***



Greater Woods Bay Planning Area



Life Cycle of a Wastewater Project

- ***Need***
- ***Concept***
- ***Analysis***
- ***Funding***
- ***Design***
- ***Construction***
- ***Maintenance***
- ***Upgrades***



***This project is moving into the initial
Concept and Analysis phases***

What is the Public Facility Planning Process?

Extended process requiring 3-8 years until construction complete

1. Prepare the Preliminary Engineering Report

- ***Defines the problem and the need***
- ***Develops best solutions and phasing***
- ***Dovetails with public process***

2. Develop a funding strategy and determine an organization structure

3. Apply for State and Federal grants and loans

- ***Timing must coincide with grant cycles***
- ***Grants can potentially fund 70-80% of capital costs***

4. Proceed with design and construction



Preparation of a “Preliminary Engineering Report” (PER)

General steps in the process.....

Task 1 – Review Existing Information and Document “Need for the Project”

Task 2 – Develop Current & Future Planning Conditions

Task 3 – Evaluate Existing “Facilities”

Task 4 – Identify and Develop Implementation Alternatives

Task 5 – Evaluate Alternatives

- *Cost Estimates*
- *Compare Alternatives*
- *Funding Source Identification*

Task 6 – Environmental Analysis

Task 7 – Prepare Recommendations and PER Document

Task 8 – Deliver Public Participation/Education Program Throughout the PER Process



What Costs Are Associated With a Wastewater Project ?

Three categories of costs...

1. Public Facility Construction

- Grants – no payback required***
- Loans or Bonds – payback required***

2. Individual Connections to Sewer Syst.

- Grants (for low-income residents)***
- Upfront payment, taxes, loans***

3. On-going Operation and Maintenance

- Periodic (monthly, quarterly, etc) payments for on-going costs of operation***

These costs typically combine to result in a monthly “rate” based on use.




Funding Sources and Financing Options for Capital Projects

Source	Features
Local Funding	<ul style="list-style-type: none">- Fees, assessments and taxes paid by the users of a utility system
TSEP Program	<ul style="list-style-type: none">- \$750,000 <u>grant</u> maximum w/ 50% match reqd.- Competitive funding based on “need”- State Coal Trust Fund Program
CDBG Program	<ul style="list-style-type: none">- \$500,000 <u>grant</u> maximum w/ 25% match reqd.- Only applicable in areas where “low to moderate income” (LMI) > 51%- State administered Federal Program
STAG/WRDA Programs	<ul style="list-style-type: none">- Typically >\$500,000 <u>grant</u> w/ 45% match reqd.- Grants as much as \$5 million in MT- Requires congressional delegation sponsorship and support – Federal Program

Funding Sources and Financing Options for Capital Projects (cont.)

Source	Features
DNRC	<ul style="list-style-type: none">- Protecting renewable resource- \$100,000 <u>grants</u>
Rural Development	<ul style="list-style-type: none">- <u>Loan</u> commitment first, <u>grants</u> possible- Variable \$\$ based on income and rates
MDEQ SRF	<ul style="list-style-type: none">- Funded through US EPA- Direct <u>loans</u> at below market interest rates- Currently 3.75% for up to 20 years
Revenue GO Bonds	<ul style="list-style-type: none">- Open market rates- Variable terms and interest

What Do Other Communities Pay for Sewer Service?



Community	Pop.	Average Monthly Bill (a)
Big Fork (District)	1,421	\$29.45
Big Sky (District)	1,221	\$73.86
Columbia Falls	3,645	\$33.60
Cut Bank	3,105	\$15.36
East Missoula (District)	2,070	\$10.62
Evergreen (District)	6,215	\$32.90
Hamilton	3,705	\$21.08
Hot Springs	531	\$26.45
Lincoln (District)	1,100	\$25.00
Ronan	1,812	\$22.75
Superior	893	\$14.67
Thompson Falls	1,321	\$31.80
Troy	957	\$34.00

(a) 2003 data- based on 6000 gals/month

What Can a Sewer Utility Customer Expect to Pay in Woods Bay ?

- ***At Least the MDOC “Target Rate”***
 - ***For Woods Bay CDP: \$21.39/mo (2000)***
 - ***Most grants will only be realized if local customers are paying their share***
 - ***0.9% of median household income***
- ***Rates could be higher dependent on:***
 - ***Total project cost***
 - ***Total number of households connected***
 - ***Success in obtaining grants to offset capital costs***
 - ***Ability to phase project over time***
- ***Key to keeping rates low will be to secure as much grant funding as possible***



How Does Woods Bay Compare to Neighboring Districts?

	Bigfork	Lakeside	Woods Bay
Population	1421	1679	748
Households	652	705	325
Median Income	\$ 36,116	\$ 36,048	\$ 31,000
Low/Mod Income	33.7 %	39.0 %	43.6 %
2000 Target Rate	\$ 24.92	\$ 24.87	\$ 21.39



Compare Community Sewer Costs to Individual System Costs

- ***New On-site System***
 - ***\$4,800 to \$20,000 for new system meeting current county standards***
 - ***Systems can be expected to last 10-25 years before requiring major investment***
- ***On-Site Systems Require Regular Maintenance***
 - ***Septic tank pumping every 2-5 years***
 - ***\$250-400/pumping***
 - ***Electricity and other maintenance***
- ***Total cost over 20 years ranges from \$26-98/month for typical on-site system***



What Wastewater System Alternatives Will Be Considered?

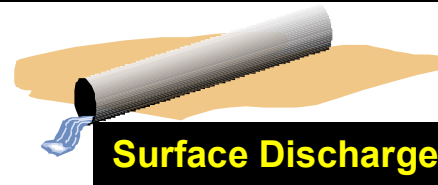
- ***Three primary elements to any wastewater system***
 - ***Sewage Collection System***
 - ***Treatment System***
 - ***Treated Water Disposal/Reuse System***
- ***Treated water disposal will have biggest influence on project direction and ultimate cost***
 - ***Type of disposal***
 - ***Location for disposal***
 - ***Size of disposal***

Disposal Alternatives Applicable To Woods Bay Area

Relative Size

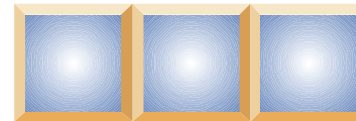
Disposal Method

Applicability



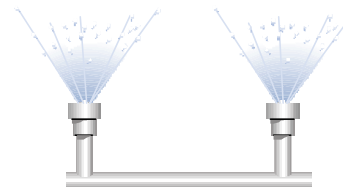
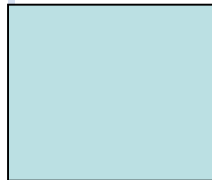
Surface Discharge

Very unlikely



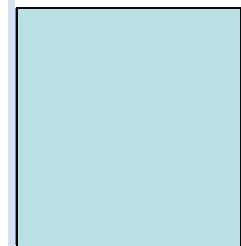
Groundwater Discharge

Yes - but poor soil for this in area



Irrigation

Yes – but large level ground required



Total Retention (no discharge)

Not practical



Pump To Bigfork

Possibly – but only if a “win-win” scenario



Ultimate Disposal Approach will Determine Treatment Requirements

- ***“Treatment” means combining sewage and natural biological processes to remove pollutants resulting in clean water***
- ***The degree of engineering that goes into “treatment” affects the size of facility required and may affect the quality of the treated water (effluent)***
- ***Generally, high quality effluent requires a high degree of engineering or a large land area***



Ultimate Disposal Approach will Determine Treatment Requirements

Examples of “low-tech”, large area wastewater treatment facilities



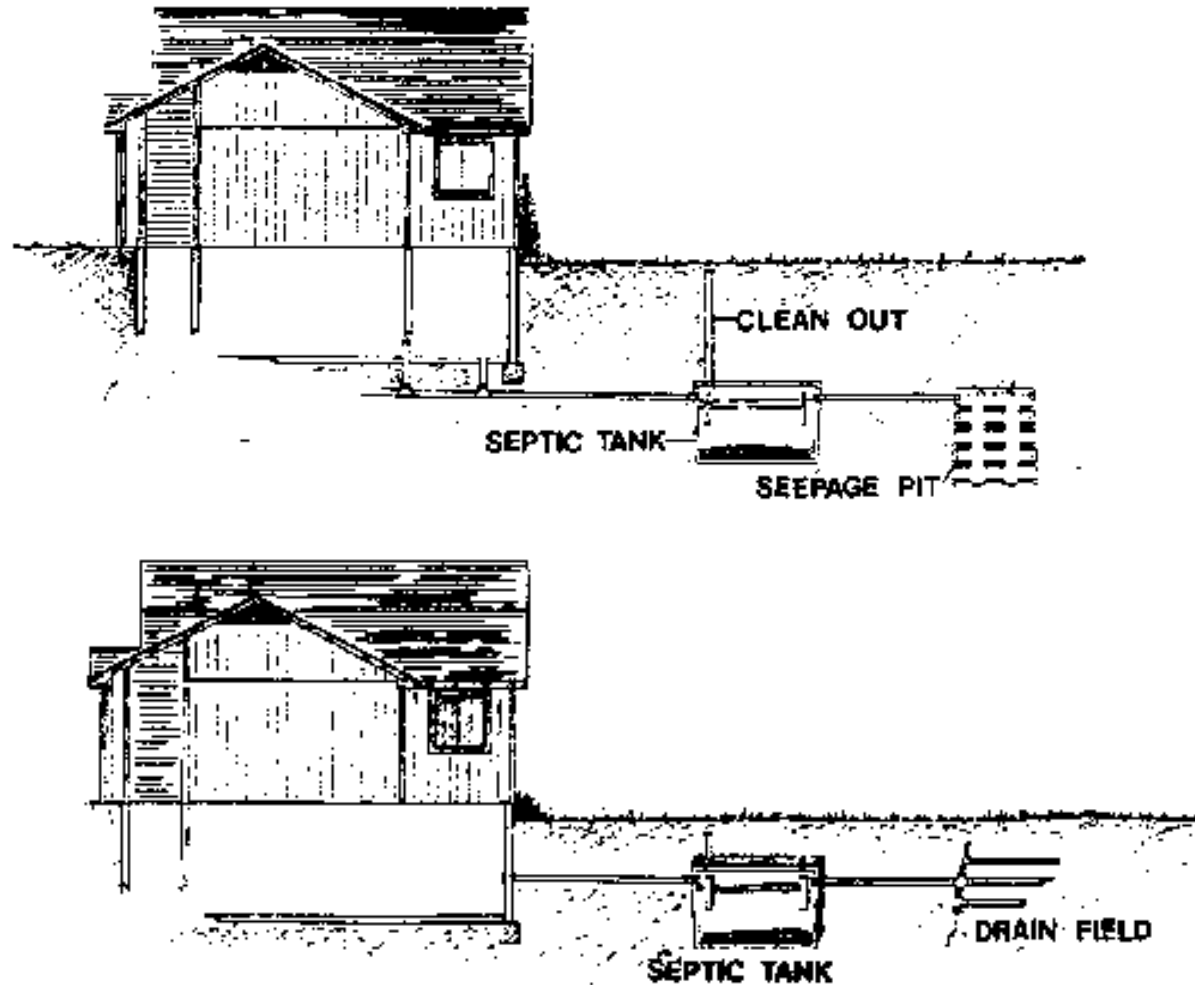
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Ultimate Disposal Approach will Determine Treatment Requirements

Examples of “high-tech”, small area wastewater treatment facilities



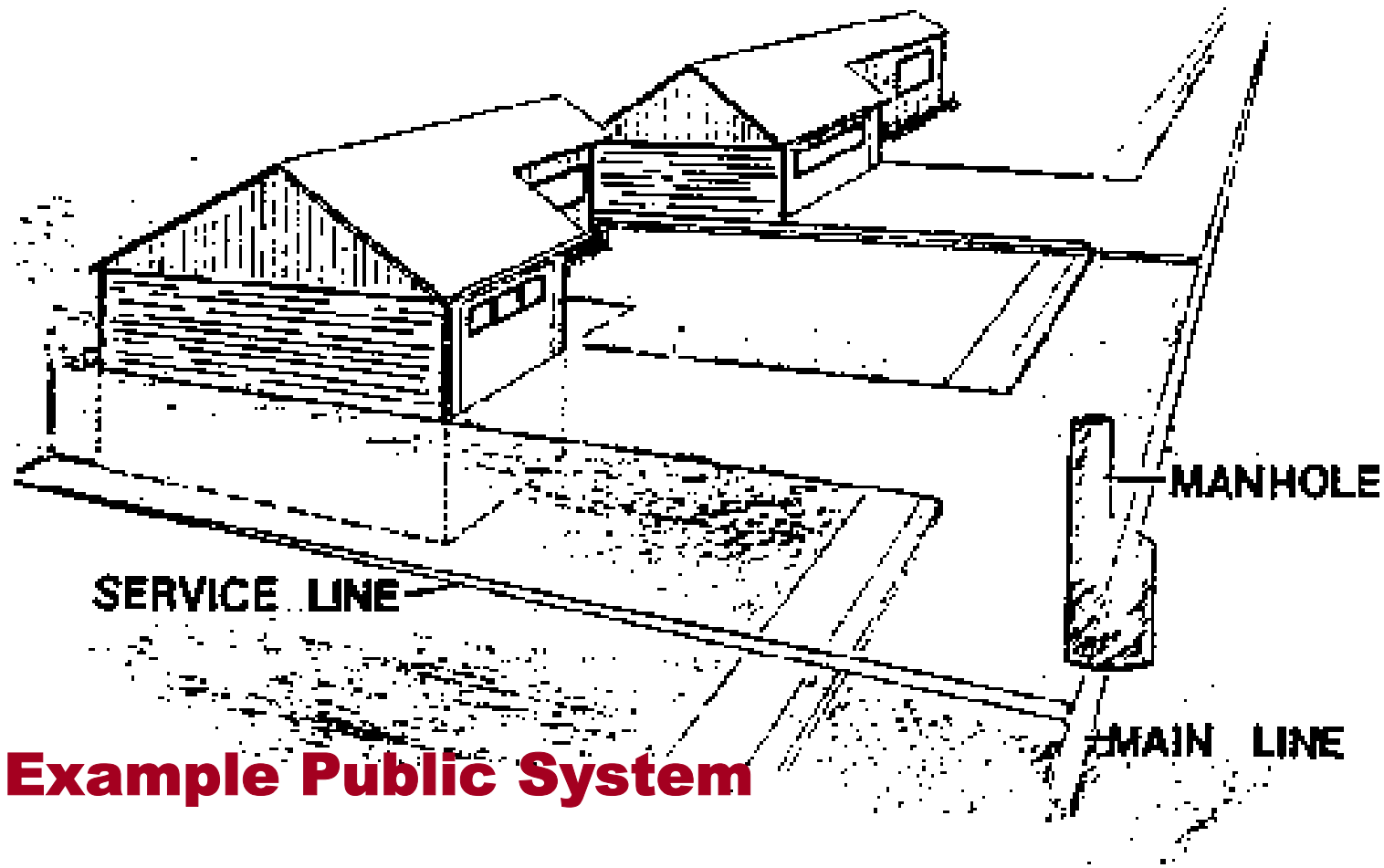
Sewage Collection System Would Replace Current On-site Systems



Example On-site Systems

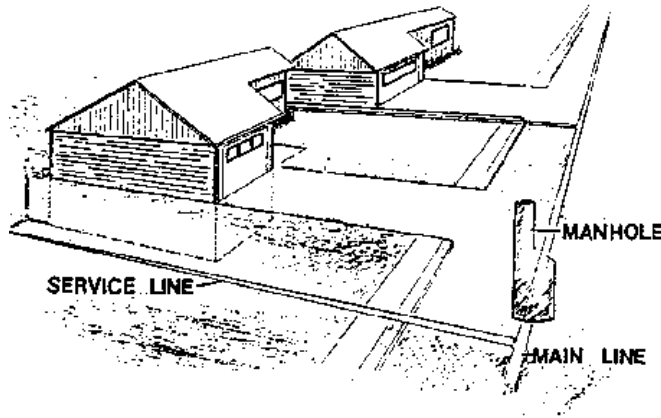


Sewage Collection System Would Replace Current On-site Systems



Example Public System

Future Collection System Will Be Based On Long-term Cost-Effectiveness



- **Traditional Gravity Collection System**
- **Alternative Collection Systems**
 - Low pressure pumped systems
 - Vacuum systems
 - Septic tank/collection system
- **Cluster (neighborhood) systems**
 - All of above, organized around neighborhood treatment systems

What Will Happen on My Property if a Wastewater System is Implemented ?

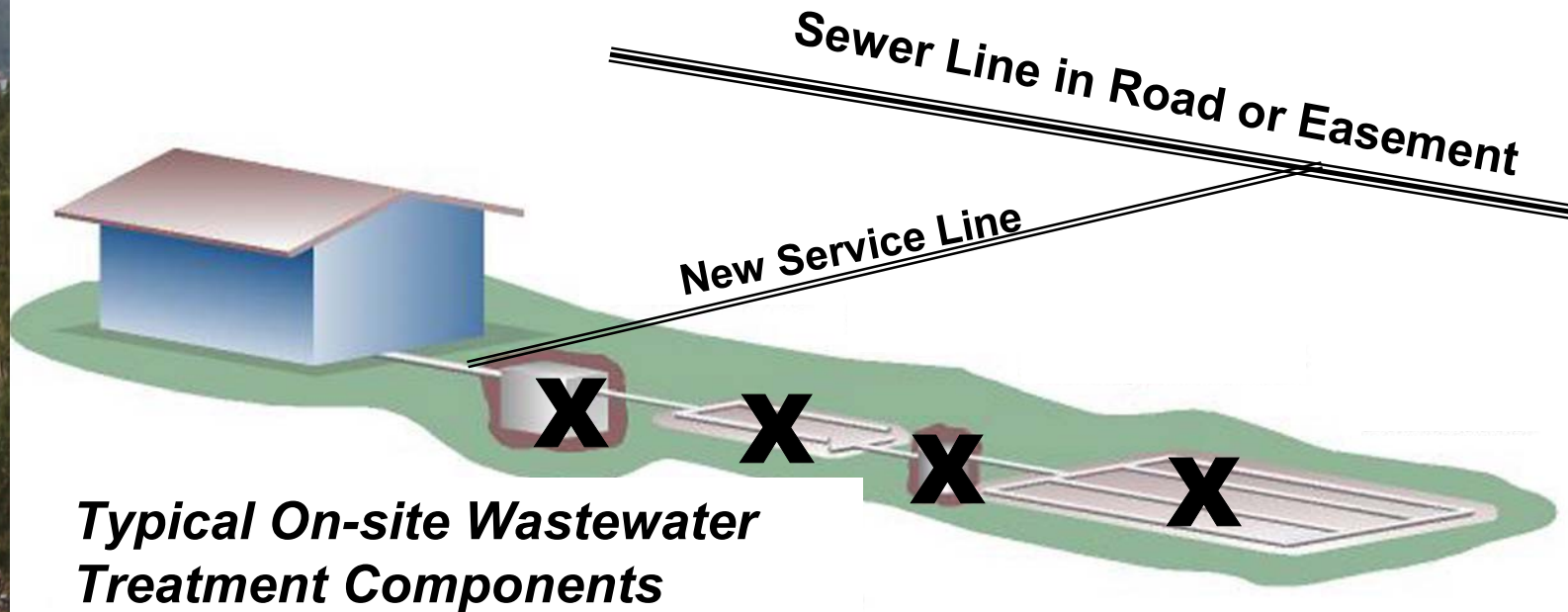
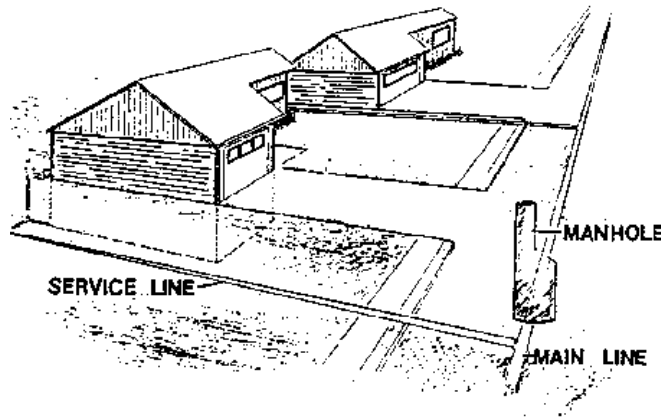


Typical On-site Wastewater Treatment Components

Decommissioning Steps:

- *Drainfield remains in place. Remove if desired.*
- *Dosing chamber equipment removed. Chamber removed or filled w/ sand and remains in place.*
- *“Filter bed” or other treatment system equipment removed. Other components cleaned and remain in place.*
- *Septic tank disconnected, pumped, cleaned, filled w/ sand and left in place (could be removed if desired).*

What Will Happen on My Property if a Wastewater System is Implemented ?



Typical On-site Wastewater Treatment Components



Sanitary Survey Results

- ***Three page survey sent to many residents in study area***
 - ***Approx. 110 surveys returned so far***
 - ***Over 20 telephone responses gathered***
- ***Surveys have many uses:***
 - ***Gauge of public interest/support***
 - ***Preliminary information for on-site requirements for implementation***
 - ***Useful to support grant applications***
- ***Results:***
 - ***7 responses deemed “unsupportive”***
 - ***18 responses deemed “supportive”***
 - ***85 responses deemed “neutral” or provided no comment***



Where Do We Go From Here with the PER Process?

- ***Formal PER process is just beginning***
- ***Engineering work completed this fall and early winter***
- ***Final Draft PER submitted to MDEQ in February 2006***
- ***Public Meetings likely in November (05), January and April (06)***
- ***Grant/loan funding development starting in 2006***



Neighborhood Involvement Ensures Your Voice is Heard

- ***Attend Public Meetings***
- ***Provide input through written and verbal comments***
- ***Visit project website for information updates (www.yennepoint.org + project website to be developed soon.***
- ***Support your neighborhood representative***
- ***Support the grant application process at the appropriate times***

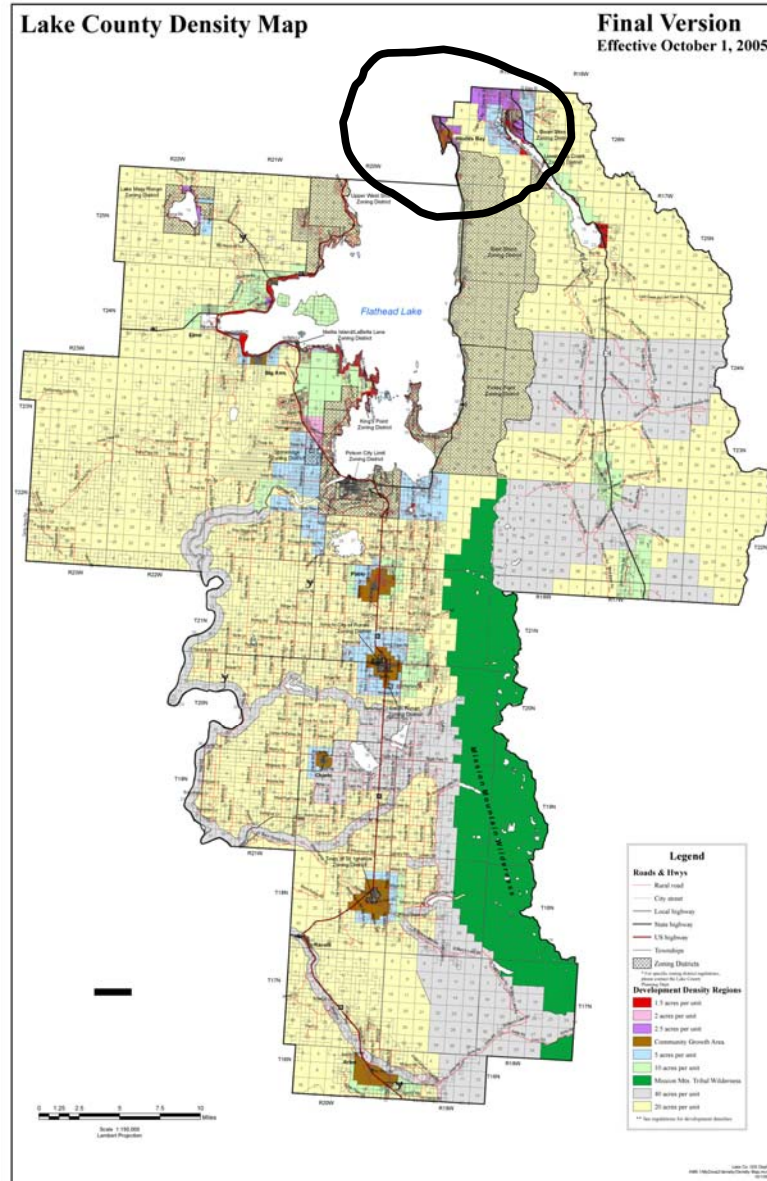


Community Planning and Wastewater Project

- **Community Planning Survey**
- **Reasons for Survey**
 - *Sizing wastewater system*
 - *Feedback on desired community character*
- **Lake County Density Map and Growth Policy**
- **Opportunities to be involved with a Greater Woods Bay Planning Board**



Draft Lake County Density Map



Draft Lake County Density Map



Legend

Roads & Hwys

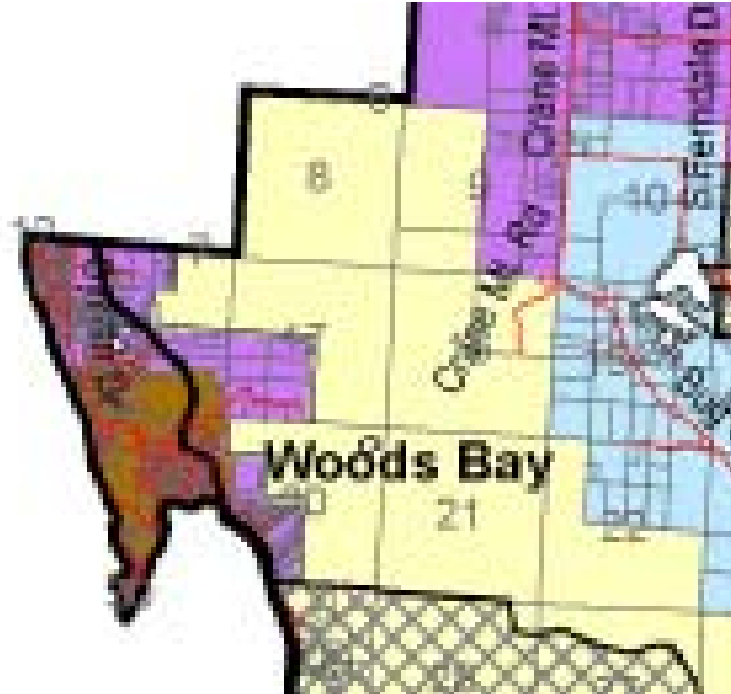
- Rural road
- City street
- Local highway
- State highway
- US highway
- Townships
- Zoning Districts

* For specific zoning district regulations, please contact the Lake County Planning Dept.

Development Density Regions

- 1.5 acres per unit
- 2 acres per unit
- 2.5 acres per unit
- Community Growth Area
- 5 acres per unit
- 10 acres per unit
- Mission Mtn. Tribal Wilderness
- 40 acres per unit
- 20 acres per unit

** See regulations for development densities



East Shore
Planning District

Greater Woods Bay Wastewater Planning

Time for Questions

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