

***Unsewered Area
Needs Assessment
Case Study: City of Burtrum***

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Unsewered Areas

- *Defined as areas without centralized sewer systems or centralized management.*
 - *Includes ISTS systems that are individually managed, even if working properly.*
- *MPCA survey of communities in 2006 found:*
 - *1,043 MN communities with wastewater needs.*
 - *103 incorporated cities – 77 the entire city*
 - *940 unincorporated areas*
 - *711 lake communities*
 - *165 “cross-road” communities*
 - *52 subdivisions in un-incorporated areas*
 - *103 identified straight pipe problems.*



Unsewered Areas

- *ISTS rules Code 7080, administered by the MPCA.*
 - *Updated codes were implemented 2/2/08*
 - *Counties/townships may adopt stricter codes*
 - *Govern individual, cluster and soil-based municipal systems in MN*

- *ISTS Professionals trained by UM; licensed by MPCA.*



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What is the Problem?

- *Straight pipes to ditch, storm water drains, directly into streams, lakes – ISTS, community*
- *Failed, failing, inadequate*
 - *municipal systems*
 - *ISTS systems*
- *Lack of funding*
- *Lack of community resources?*
- *Lack of knowledge, interest, incentives?*



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The Community Process

- **The community needs a shared vision and a clear mission.**
- *A successful outcome is often more dependent on the **PROCESS** the community follows to address the issue than on the sewage treatment technologies available.*
- *This process puts the community in charge – not the professionals, agencies or anyone else.*

Steps in the Process

- Lay the groundwork, planning
- Explore the options
- Financial planning
- Identify options
- Construction
- Management



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Lay the Groundwork: Needs Assessment

- *Provides benchmark data*
- *Evaluate existing and potential cluster, large systems.*
- *Steps:*
 - *Define the problem and area to study*
 - *Examine existing records and data*
 - *Community determines their goals, long-range vision*
 - *Use an RFP process to hire ISTS soils professionals*
 - *Verify the data with University professionals*



Request for Proposals

- *Communities in charge of the process use RFP's to hire needed professionals – directing what needs to be done.*
- *Include*
 - *Scope of Work: what will be done*
 - *Qualifications, especially related to soil-based*
 - *References, including from communities*
 - *ISTS license numbers*
 - *Insurance*
 - *Timeline*
 - *Deliverables*

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Possible Funding Sources

- **Public Facility Authority Small Community Grants**

- \$10,000 + \$500/home, up to \$40,000
- Provides technical assistance from the UM
- Pays for site evaluations of existing, proposed sites, other work
- For communities looking at possible soil-based solutions
- Must be scored on the MPCA Project Priority List (PPL)
- Must publicly own all systems installed as a result of this work
- Can be followed with low interest loan and grant programs

- **Clean Water Legacy-TMDL**

- Counties were able to apply for low-income resident grants, incentives for upgrades and a revolving loan program.
- Awards announced soon.

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Possible Funding Sources

- **Initiative Foundation**
 - *\$10,000 planning grants for 14 counties in central Minnesota.*
 - *Some other McKnight Foundations fund environmental work*
- **Low interest loans for IPHT systems**
 - *contact local SWCD or Watershed*
- **USDA Rural Development**
 - *Grant and loan funder for community installation projects*
 - *Low-interest loans, grants for very low income, disabled IPHT and upgrades*



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Partners for Small Communities

Minnesota Pollution Control Agency:

www.pca.state.mn.us/water/wastewater.html

Minnesota Rural Water Association: www.mrwa.com

MN Initiative Foundations: www.mcknight.org/greatermn

Midwest Assistance Program: www.map-inc.org

Public Facilities Authority:

www.deed.state.mn.us/Community/assistance/pfa.htm

USDA Rural Development: www.rurdev.usda.gov/MN

University of Minnesota Onsite Sewage Treatment Program:

<http://septic.umn.edu>



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City of Burtrum

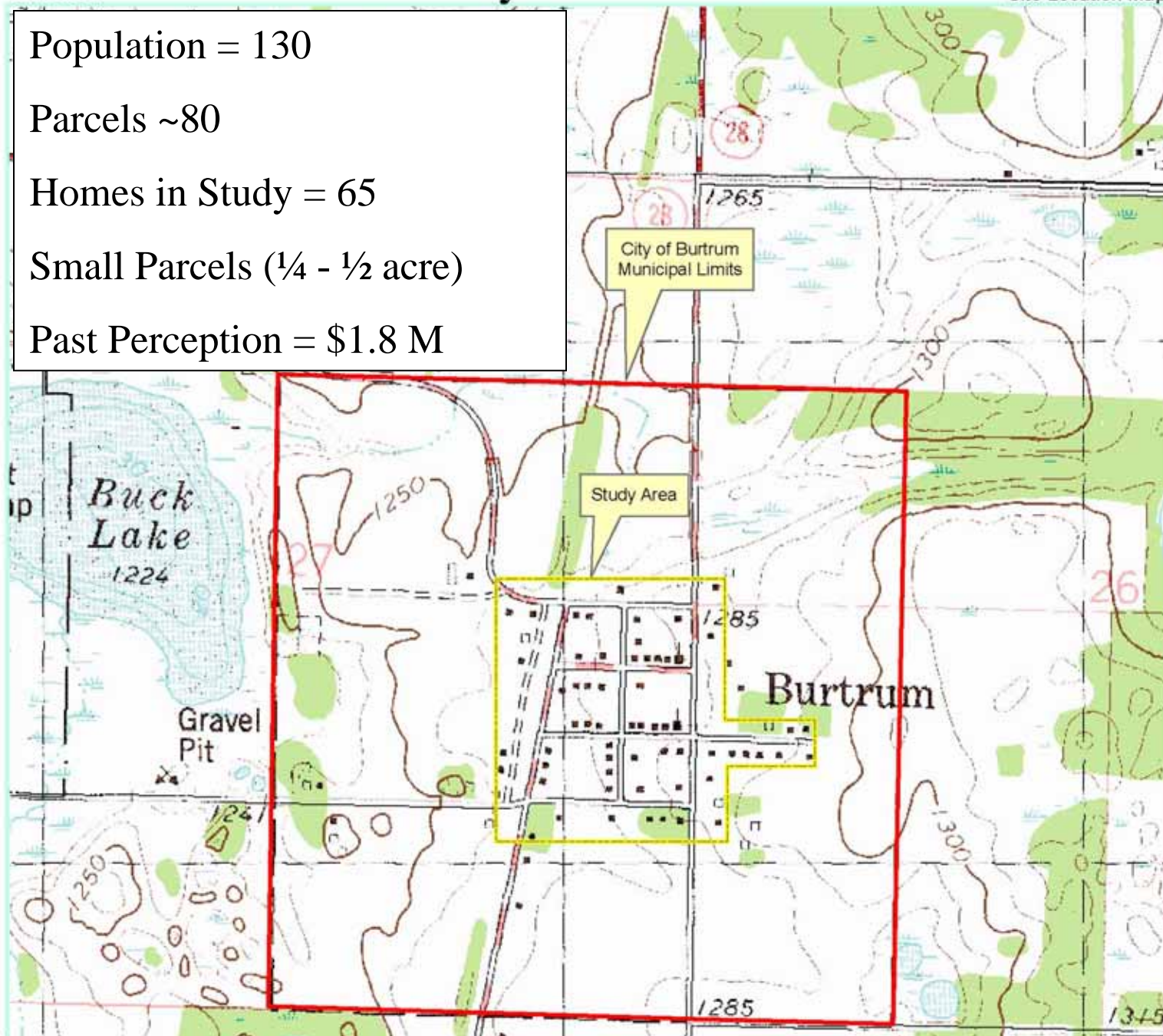
Population = 130

Parcels ~80

Homes in Study = 65

Small Parcels ($\frac{1}{4}$ - $\frac{1}{2}$ acre)

Past Perception = \$1.8 M



Project Planning

- *Town Hall Meeting*
 - *Informed the residents*
 - *Answered questions*
 - *Listen to concerns*
 - *Resident Survey*



Homeowner Survey: Onsite Septic System

UNIVERSITY OF MINNESOTA
EXTENSION
<http://septic.umn.edu>

These questions help septic system professionals determine the best level of care for your septic system. The questions can also help trouble-shoot problems, address needed upgrades or changes, or other issues.

Name _____ Phone Number _____

Address _____

County/Township _____ Permit No. _____

Information about the home and residents:

1. The house/cabin is used _____ full time, year-round _____ seasonal or part-time
2. Number of people living in the home: _____ adults _____ children age 0 – 11 _____ children age 12 & up
3. current number of bedrooms _____ number of bedrooms in original design _____
number of bathrooms: _____ full _____ three-fourths _____ half
4. Do you have an in-home business? _____ If yes – what is it? _____

Information about the Septic System: *italicized answers best protect your system.*

5. Number of septic tanks or chambers in tanks: _____ capacity of tanks in gallons _____ unknown.
6. Date of last pumping or evaluation: _____ How many tanks pumped _____ unknown.
7. Are there risers on the septic tank manholes? _____ yes _____ no _____ unknown
8. Are the risers insulated for freezing protection, and well secured for safety? _____ yes _____ no _____ unknown
9. Is there an effluent screen on the outlet baffle of the tank? _____ yes _____ no _____ unknown
10. If an effluent screen is present, do you maintain it? _____ the pumper checks it _____ yes _____ unknown
11. Do you know how old your septic system is? _____ no _____ yes, installed in _____
12. Are you aware of any problems or repairs? _____ Describe: _____

13. Has the system ever frozen? _____ Yes, specify where _____ no _____ unknown
14. Do you use septic tank or system additives? _____ no _____ yes, we have added _____
15. Have you noticed any odors? _____ Where? _____
16. We have: _____ in-ground soil treatment area _____ above ground _____ other _____
17. We mow the grass over the drainfield regularly _____ yes _____ no
18. We keep all vehicles, snowmobiles, dirt bikes, 4-wheelers, other items off our drain field area _____ yes _____ no
19. Pumps: _____ yes, our system has pumps _____ no _____ unknown Gallons/dose _____ Doses/day _____
20. Alarms: _____ alarms are present for pumps and/or effluent screen. _____ Alarms do not work
_____ unknown _____ we do not have any alarms.
21. Well: _____ yes _____ no Well casing depth _____ feet Distance from drainfield _____ feet
22. Is this your first home with a septic system? _____

Are you familiar with the "dos and don'ts" of a septic system? _____

Do you have a copy of the *Septic System Owner's Guide* from the University of Minnesota? _____

Updated 5/10/2007

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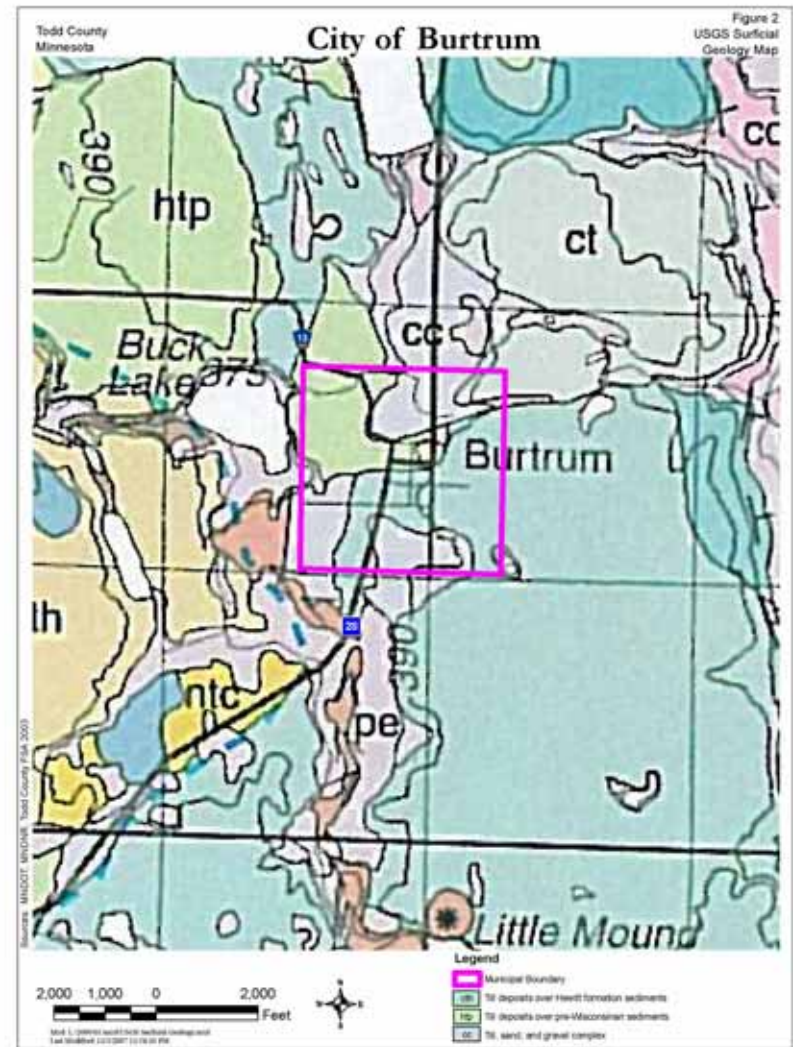
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Project Planning

- *Review Existing Data*
 - *ISTS permits*
 - *Soil and Geology Maps*



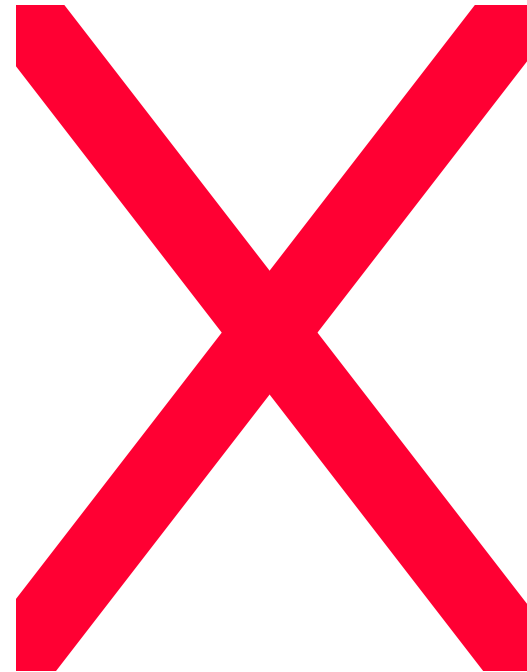
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Project Planning

- *Review Existing Data*
 - *Well History*
 - *ISTS History*





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