Ham Lake Comp Plan Update

Sewer Task Force Meeting

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Purpose For Task Groups

- Provide an opportunity for joint data analysis, questions and interpretation;
- Create development of shared goals and a sense of “purpose”; and,
- Make policy recommendations to Council. May include primary and minority recommendations.

Objectives for Tonight

- To understand Met Council Requirements for Interceptor Service
- To understand component and cost fundamentals of sewer/water systems needed to conduct a feasibility assessment.
- Begin review of various “Vision” options.
- Develop progress report and initial recommendations for presentation to Task Force in January:
  - Principles or standards for evaluation
  - Shared Goals
  - Recommendations with Qualifications

Developing A Vision

- Sewer and water service are key components of some visions for future growth. These include:
  - a mixed-use community district or downtown area (economic development, identity, convenience)
  - Small sewer/water district to serve businesses only (economic development).
  - New residential development at typical suburban densities.

Community Center Vision

- Mixed-use (commercial, industrial, residential)
- Pedestrian friendly
- Varying housing/density types
- Variety of commercial services
- Community Center development offers potential
  - as funding source for trail development.
  - Density transfer from Sod fields, protects property rights & open space.
  - Sense of place/identify for community
  - Convenience commercial services
- Key Issues:
  - Sewer/Water service
  - Competitiveness (market, sewer/water rates)
  - Financing
  - Limited time for decision-making

Key Issues/Assumptions

- Interceptor Service (includes treatment/disposal) requires 500,000 gpd.
- Sewer/water service needed for viable Mixed-Use Community “district/downtown” in Crosstown/Hwy 65 area.
- This commercial service center will be in competition with similar service areas planned in East Bethel and those existing in Blaine.

Key Issues/Assumptions

- Community Center/downtown Success factors:
  - Sufficient rooftops and income within market area
  - Competitive sewer/water services
- Competitive sewer/water service for all users requires sufficient scale (number of users) over which to spread fixed costs.
- Providing sewer service to Coon Lake has marginal impact on sewer feasibility.

Key Drivers of Decision

- Supports Vision of Mixed-Use Community District/Downtown and associated benefits
- Scale and density of system provide competitive service
- Scale and density needed for competitive service are acceptable to community

Sewer Service or Septic Service

Sewer Service – A community system consisting of a centralized treatment plant connected to homes with a series of pipes, lift stations and manholes. Planning areas seeking the development of sewer also typically install a public water distribution system including wells, tower, and piping to connect to each house or business.

Septic System – Individual Septic Treatment Systems(ISTS) located on each residence with water service coming from privately owned wells. Also included may be cluster drain fields serving a number of properties.

Sanitary Sewer System Components

The following elements go into a sewer system:

- Waste Water Treatment Plant
  Regionalization (MET Council Interceptor Service) -or-
  Locally owned and run Treatment Plant
- Lift Stations
  Required in certain areas to pump the sewer flow uphill
- Trunk Sewer Lines within the City (not Met Council Interceptor Line)
  Sewer collection lines typically 12” diameter and larger
- Lateral Sewer Lines
  Sewer collection lines typically 8” to 10” diameter to get from trunk lines to each property
- Service Lines
  Sewer lines to connect each house or business to the lateral lines.

Water System Components

The following elements go into a water system:

- Wells and Well houses
  Large publicly owned and run wells to supply drinking water.
- Water Treatment Plant
  Depending on the quality of the water found a treatment plant may or may not be required.
- Elevated water storage
  A water tower will provide the needed pressure for distribution of water to residents.
- Trunk Watermains
  Water distribution pipes typically 12” diameter and larger
- Lateral Watermains
  Water distribution pipes typically 8” to 10” diameter to get from trunk lines to each property
- Service Lines
  Sewer lines to connect each house or business to the lateral lines.

The Residential Equivalent Connection (REC):

Residential Equivalent Connection (REC)

1 Residential Equivalent Connection (REC) = 1 residential house (~250 Gallon/Day)

1 Acre of Commercial property = 4 REC’s

1 High Density Acre Developed City Center property = 8 REC’s

System Costs

- Capital or upfront Fixed costs
  - Treatment Plants
  - Wells and Storage
  - Interceptors
  - Trunk
  - Laterals
  - Services
- On-going:
  - Debt Service (if applicable)
  - Maintenance
  - Reserve/replacement
  - Operating

Paying for Improvements

- Actions taken by Cities
  - Bonding for portions of the improvements
  - Staging capital improvements expansion
- Assumptions made for the costs presentation in the following slides:
  - Improvements are fully funded by the users
  - Users pay up front for the improvements
  - No financing charges are included
  - Staging capital improvements expansion
  - No easements or right-of-way is purchased
  - All costs are shown in 2007 dollars
  - Costs include administration and contingencies

Potential Options and Subsequent User Costs

Option 1 – Maintain current policy utilizing Individual Septic Treatment Systems and private wells.

Option 2 – Plan for and install a sewer and water system to serve only a 115 acre Mixed Use Community District/Downtown area (See Figure)

Option 3 – Plan for and install a sewer and water system to serve the identified area of the 2005 RLK 'Public Sewer and Water Supply' plan modified such that development densities or planning areas increased to achieve Met Council Service. (See Figure)

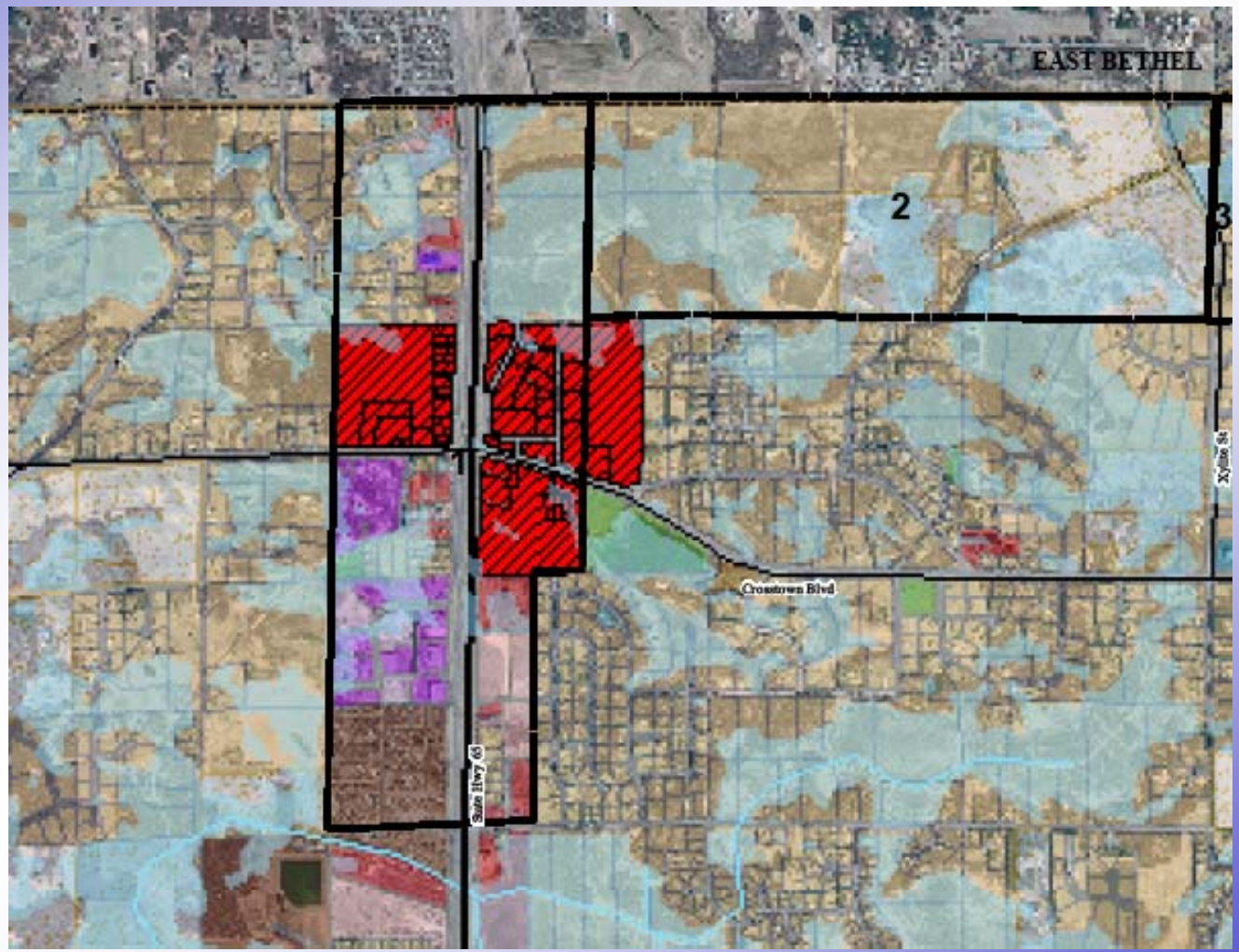
Option 4 – Combine Options 2 and 3.

Option 1 – Maintain current policy utilizing Individual Septic Treatment Systems and private wells.

New Septic System	*= $12,000 to $15,000*
New Residential well	*= $10,000 to $15,000*

Total Cost for new Septic and Well **=$22,000 to $30,000 / REC**

Option 2 – Install a sewer and water system to serve <u>only</u> a 115 acre Mixed Use Community District in the Cross-town area.



Option 2 – Install a sewer and water system to serve only a 115 acre Mixed Use Community District in the Cross-town area..

Assumption: A discharge permit can be obtained to construct a wastewater treatment facility.

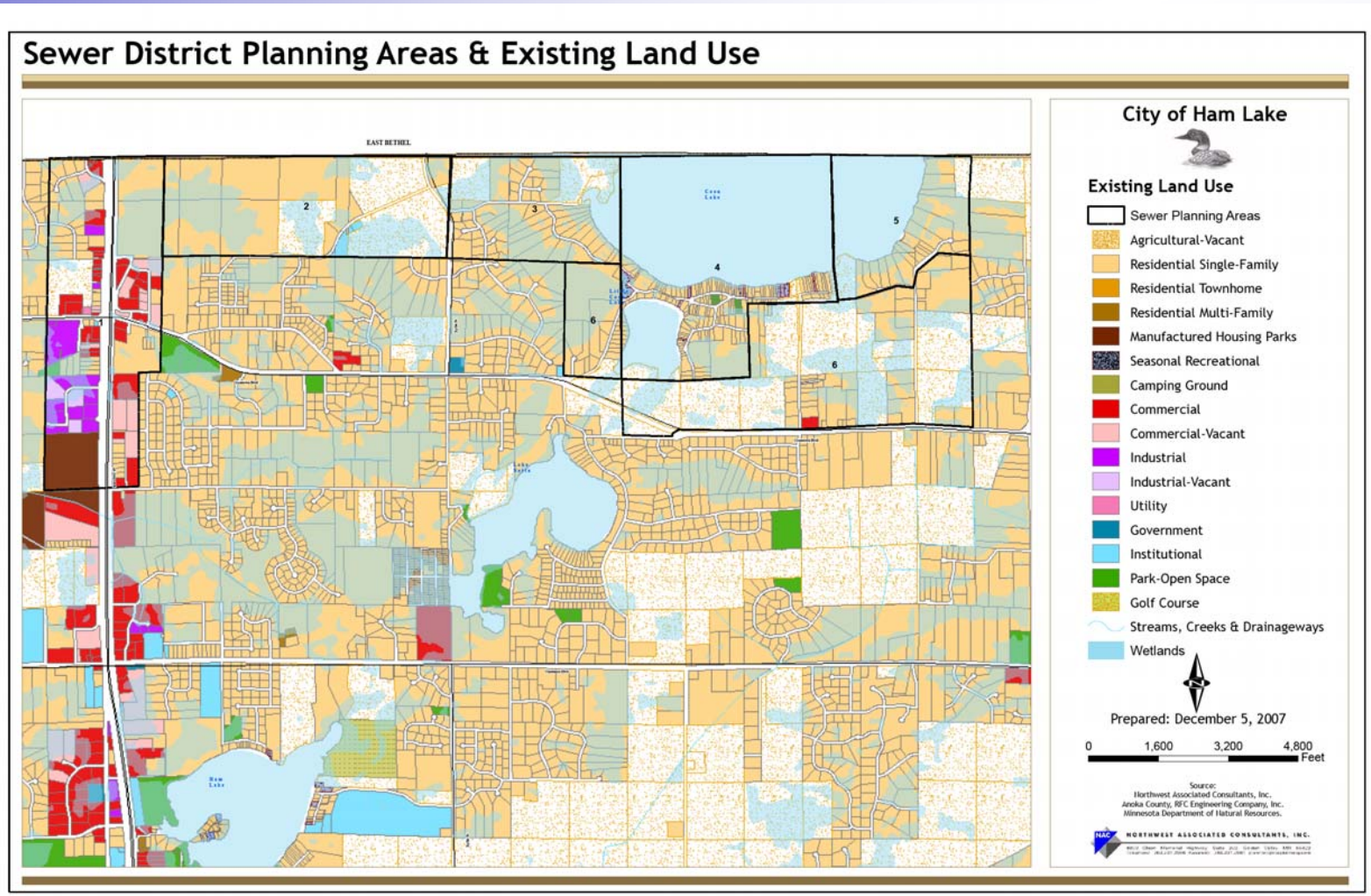
Option 2 serves ~ 920 REC's (Ultimate)

Sewer and Water Improvements = $29.9 Million to $34.5 Million

Total Cost for Sewer and Water =$32,500 to $37,500 / REC

Costs shown per REC will increase if financing is pursued.

Option 3 – Install a sewer and water system to serve the identified area of the 2005 RLK Report modified to achieve Met Council Service.



Option 3 – Install a sewer and water system to serve the identified area of the 2005 RLK Report modified to achieve Met Council Service.

Assumptions: Met Council service is made available or a discharge permit can be obtained to construct a wastewater treatment facility.

Option 3 serves ~ 2000 REC's (Ultimate)

Sewer and Water Improvements *= $60.0 Million to $70.0 Million*

Total Cost for Sewer and Water **=$30,000 to $35,000 / REC**

Costs shown per REC will increase if financing is pursued.

Option 4 – Combine Option 2 and 3

Assumptions: Met Council service is made available or a discharge permit can be obtained to construct a wastewater treatment facility.

Option 4 serves ~ 3000 REC's (Ultimate)

Sewer and Water Improvements *= $66.0 Million to $75.0 Million*

Total Cost for Sewer and Water **=$22,000 to $25,000 / REC**

Costs shown per REC will increase if financing is pursued.

Discussion….