



Information Session for
Wastewater Haulers

The Future of Hauled Wastewater

June 21, 2007



Why we are here today

- Share our progress on a plan to manage hauled wastewater for the next 20 years
- Invite your comments on the recommendation

Agenda

- Background
- Purpose of the study
- Status
- Options
- Next steps
- Summary

Background

- Three hauled wastewater facilities
- Hauled wastewater enters the plants and is treated along with wastewater from the sewer system

New licensing requirements for our wastewater treatment plants

- New licences issued by Manitoba Conservation require new treatment processes to reduce nitrogen and phosphorus in the treated wastewater
 - WEWPCC by 2007
 - SEWPCC by 2012
 - NEWPCC by 2014

How the licensing requirements affect hauled wastewater

- Hauled wastewater contains:
 - high concentrations of nitrogen and phosphorus
 - higher than average biochemical oxygen demand and total suspended solids
 - many compounds that may be harmful for new process
- These characteristics could “shock” the nutrient removal system
- We need to account for this in the new treatment processes

Status

- 1) Studied wastewater hauled to our 3 disposal facilities
 - volume
 - type (characteristics)
 - where it comes from
 - where it is disposed

Status (cont'd)

- 2) Studied hauled wastewater practices in Western Canada
- 3) Developed a list of options for handling hauled wastewater
- 4) Narrowed the list to the two most cost effective options (both for the haulers and the City)

Studied Hauled Wastewater

- Reviewed historical data (1999 - 2004)
- Reviewed the tracking system database that took effect 2005
- Conducted a sampling program in October 2006

Hauled Wastewater Practices in Western Canada

- Disposal facilities at wastewater treatment plants is the most common method
- Most municipalities use a tracking system
- Most cities monitor disposal facilities to prevent the treatment processes from being harmed

Developed a List of Options for Managing Hauled Wastewater

- Identified many options
- Narrowed the list to two of the most cost effective options based on:
 - impact on operations
 - impact on hauler
 - cost to build and operate
 - transportation, noise, and odour

Top Two Options

1) Recommended Option

- upgrade disposal locations at the NE and SE plants

2) Alternate Option

- upgrade NE disposal location and shut down SE disposal location

Recommended Option

- Upgrade NE and SE disposal locations
 - ✓ build a new second receiving point at NE
 - ✓ build a new access road next to existing road at NE
 - ✓ continue with one receiving point at SE

Alternate Option

- Upgrade NE disposal location and shut down SE disposal location
 - ✓ build two new receiving points
 - ✓ build new access road to accommodate 3 receiving points

Upgrades for Both Options

- Both options would have the following upgrades:
 - ✓ automated access and tracking system
 - ✓ flow measurement and sampling capabilities
 - ✓ new containment tank
 - ✓ enhanced security features

Estimated Costs to Build and Operate

| Option | Capital Cost | Annual Operating Cost |
|---|----------------|-----------------------|
| Upgrade NE and SE disposal locations | \$2.7 million | \$35,000 |
| Upgrade NE disposal location & shut down SE | \$2.35 million | \$31,500 |

Effect on Disposal Rate (per kilolitre)

| Option | Current Rate (as of July 1) | Rate Increase | Total Disposal Rate |
|---|--------------------------------|---------------|---------------------|
| Upgrade NE and SE disposal locations | \$2.51 | \$2.22 | \$4.73 |
| Upgrade NE disposal location & shut down SE | \$2.51 | \$2.04 | \$4.55 |

Comparison of Advantages

| Option | Advantage |
|---|---|
| Upgrade NE and SE disposal locations | <ul style="list-style-type: none">- Continue to operate two disposal locations |
| Upgrade NE disposal location & shut down SE | <ul style="list-style-type: none">- Reduce risks to treatment processes at the South End plant- Lower operating costs- Lower capital cost- Lower disposal cost for haulers |

Comparison of Disadvantages

| Option | Disadvantage |
|---|---|
| Upgrade NE and SE disposal locations | <ul style="list-style-type: none">• Higher capital and operating costs• Higher disposal cost for haulers• Operate and maintain two disposal locations• Potential overload to treatment processes at the SE plant |
| Upgrade NE disposal location & shut down SE | <ul style="list-style-type: none">• Operate only one disposal location• Increased hauling time and distance for some haulers |

Implementation Plan

- Subject to funding approval by City Council, upgrades could begin in 2008 and be complete by late 2009 or early 2010

Next Steps

July 13, 2007

Receive your comments on the options

Fall 2007

Submit a report with our recommendation to the Standing Policy Committee on Infrastructure Renewal and Public Works

We will let you know when the report goes forward. You can register as a delegation to appear at the committee meeting.

Summary

- Our priority is to:
 - ✓ do everything we can to meet the new licence requirements
 - ✓ maintain a high level of service
- We will consider and include your comments when preparing our report.

Questions?