



City of Grand Island

Tuesday, June 06, 2006

Study Session

Item -

Update and Recommendations for Waste Water Treatment Plant Facility Plan

Staff Contact: Steve Riehle, City Engineer / Public Works Directo

Council Agenda Memo

From: Steven P. Riehle, Public Works Director

Meeting: June 6, 2006

Subject: Update and Recommendations for Waste Water Treatment Plant Facility Plan

Item #'s: 1

Presenter(s): Steven P. Riehle, Public Works Director

Background

On October 11, 2005, the city council approved an agreement with consulting engineering firm CH2MHill to prepare a comprehensive plan for the Waste Water Division of the Public Works Department. The comprehensive plan was to address waste water collection and treatment needs for the next 20 years. Items that were to be evaluated included:

- Project Execution and Definition
- Project Management and Quality Control
- Future Flows and Loading Projections
- Review of Regulatory Requirements
- Review of Existing Treatment Facilities
- Treatment and Hydraulic Modeling
- Alternatives Analysis and Evaluation
- Odor Evaluation
- Effluent Polishing Study
- Hydraulic Model Update
- Existing Collection System Hydraulic Evaluation
- Future Collection System Hydraulic Evaluation
- Condition Assessment
- Hydrogen Sulfide Modeling
- Reporting and Capital Improvement Plan Development

The city council received an update on odor, solids handling and compost operations at the January 31, 2006 study session.

Discussion

Significant effort has been expended the last few months on resolving odor concerns from the solids handling and compost operations at the plant. Approximately 80% of the sewage sludge generated at the plant is being hauled to area landfills. The remaining approximately 20% is used in a pilot Aerated Static Pile (ASP) compost test.

Steve Riehle, Grand Island Public Works Director and Tom Heinemann, CH2MHill Vice President, Water & Waste Water Engineering and Program Management, will present an update that includes the following:

Steve Riehle:

- Odor Hot-line Update
- Nasal Ranger Report

Tom Heinemann

- Ongoing Challenges and response to those Challenges
- Current Status
- Other recent WWTP Activities
- UV Dis-infection System Update
- Pilot Compost Unit - Aerated Static Pile (ASP)
- ASP Results to Date
- Long Term Solids Handling Options
- Cost Analysis
- Qualitative Evaluation Criteria
- Anaerobic Digestion Advantages
- Anaerobic Digestion - Shapes & Sizes
- Anaerobic Digestion - Project Implementation
- Recommendations for the Future of the WWTP Facility

Conclusion

This item is presented to the City Council in a Study Session to allow for any questions to be answered and to create a greater understanding of the issue at hand. Direction concerning the short term and long term recommendations will be determined at a future city council meeting.