

MSP Infrastructure Deficiencies / Upgrades Summary

EXISTING 50-YEAR OLD WATER DISTRIBUTION SYSTEM*:

- Inadequate undersized line sizes
- Life Safety Concerns / Liability Issues

DEQ Requirements:

- **Life Safety Fire Flows and Domestic water use Requirements**

Low Side Housing:

- Water Distribution loop: tanks to Low Side Housing Domestic Water and Fire Flow:
- Budgeted at \$3M per

Campus Water Distribution System

- Replacement of undersized lines / connect to new Low Side Housing water mains

EXISTING WASTEWATER 50-YEAR OLD WASTEWATER LAGOON SYSTEM*:

- Non-Functioning UV Treatment System
- Sewer Collection piping deterioration / replacement
- Lagoons at capacity

Aerated Lagoon Reconstruction:

- DEQ Requirements for Public Wastewater treatment
- New UV System
- Increased capacity

Existing Sanitary Sewer Main Replacement

EXISTING 1970'S MEDIUM VOLTAGE SYSTEM

- Portions of the System Rebuilt 6 years ago, will mostly have to be rebuilt again as they were not designed for expansion
- All remaining sections of distribution will require replacement as they are past their design life spans

Immediate Electrical load need for Low Side Housing

- Reconductor 960 ft of recently rebuilt line
- Replace NorthWestern Energy Transformer
- NorthWestern Energy Power Upgrades to Site**

Deficiencies of Existing Electrical

- Rebuild Remaining aged Overhead Distribution Lines
- Reconductor 2020 rebuilt section feed to 6MVA

* **Infrastructure Study on file with State Architecture and Engineering**

*** **The costs for upgrading Northwestern Energy's Source to the site has been set as an allowance as the costs for this work will not be known for several months and the number may be higher or slightly lower than the estimated allowance**