My disclaimer: I have no affiliation with LCRD and do not represent them or their views in any way.

This is my take using my experience, attending the meeting, and looking at the PERS.

Having built a couple of waste treatment facilities in Chicago, I’m hoping to add a little insight into the critical condition of our treatment facilities.

First to be considered is how long does this equipment actually last? Depending on normal service, motors and electrical distribution equipment are reliable between 10 – 15 years.

Piping,15 -30 years, valves 15 – 20 years, pumps 10 – 15 years, with pumps being the most prone to failure due to their number of moving parts.

Please remember these facilities handle waste which is very corrosive and causes high levels of stress to the equipment mentioned above.

With this in mind, looking at the age of equipment in both region B and F, we can see that approximately 90% of the equipment is close to or exceeds 20 years in service. To replace equipment in a planned maintenance program is at least 3 times more cost efficient than in an emergency situation. This being said, the following is a list of critical equipment in both regions B and F which needs to be replaced to continue the reliable service we have had in the past. Also, there are improvements included, which will help keep the yearly Operating and Maintenance costs affordable.

Critical areas which must be addressed to avoid catastrophic failure have been identified as follows:

Region B replace entire main lift stations 2,4,and 6. During replacement, adding a bypass for more cost efficient future maintenance projects

Lift station 8 to lift station 7, there have been 3 pipe breaks in the last year under SR 3 which can pose an expensive service interruption and can have a costly environmental impact

Replacement of existing, and obsolete, emergency generators on all lift station pumps. This should be completed when replacing the lift station equipment.

Updating the sludge handling system, converting liquid sludge to solids handling for more cost efficient disposal.

Oxidation ditch upgrade of undersized and inoperable equipment

EQ tank bypass line for future proactive maintenance

Estimated cost $5,000,000

These costs DO NOT include connecting region F to region B

Region B proposed improvements also classified as Critical:

Lift stations 1.3.4.5.7.8.& 10 This includes motors, pumps , and emergency generators

Parshall flume, clarifier equipment, UV equipment, aerobic digester equipment , anew solids storage area

The region B estimated cost for these critical items with the upgrades are $4,300,000.

Additional improvements:

Upgrade region B: on site water system

Region B: Screening to control solids and debris in system

Region B: storage building for equipment now stored outside

Region B: Install a grinder pump washdown room in existing WWTP building

The above estimated costs are 1,700,000

Region F Critical Issues

The WWTP is marginally meeting effluent limits. This means the Wetland Cells can no longer complete the cleaning of the effluent from the region F plant. A solution must be chosen very soon.

The septic tanks which have been modified to work as aeration tanks are difficult to service. They also are not efficient because they are not designed for aeration use.

Options for region F:

1. Abandon and pump to region B

Estimated cost $2,300,000

Annual O & M $12,680

2)Rehabilitate and upgrade existing region F (Do not connect to region B)

Estimated cost $2,900,000

Annual O & M $68,890

Hopefully this explanation gives you an idea of how the system has worked, and the need to replace the aging equipment to continue the affordable and reliable service we’re accustomed to.

Equipment wears out and needs to be replaced. As the cost of living rises, these services like other costs increase. These improvements will raise our monthly rates, there’s no denying that. Finances will determine the amount of improvements which are scheduled. These scheduled improvements will determine rate increases. The next step is to find out how much money the finance sources will allocate.

Also the LCRD is a non-profit organization. If anyone wants to look at books or records, they can contact the office and set up an appointment to do this.