Informal Informational Meeting

A. Roll Call by City Clerk

B. Topic(s)

B-1 Receive Information Regarding White Slough Water Pollution Control Facility Update (PW)

C. Comments by Public on Non-Agenda Items

D. Adjournment

Pursuant to Section 54954.2(a) of the Government Code of the State of California, this agenda was posted at least 72 hours in advance of the scheduled meeting at a public place freely accessible to the public 24 hours a day.

Jennifer M. Ferraiolo  
City Clerk

All staff reports or other written documentation relating to each item of business referred to on the agenda are on file in the Office of the City Clerk, located at 221 W. Pine Street, Lodi, and are available for public inspection. If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and the federal rules and regulations adopted in implementation thereof. To make a request for disability-related modification or accommodation contact the City Clerk’s Office as soon as possible and at least 72 hours prior to the meeting date.

Language interpreter requests must be received at least 72 hours in advance of the meeting to help ensure availability. Contact Jennifer M. Ferraiolo at (209) 333-6702. Solicitudes de interpretación de idiomas deben ser recibidas por lo menos con 72 horas de anticipación a la reunión para ayudar a asegurar la disponibilidad. Llame a Jennifer M. Ferraiolo (209) 333-6702.
Receive Information Regarding the White Slough Water Pollution Control Facility Update

June 25, 2019 (Shirtsleeve Session)

Public Works Director

Receive information regarding the White Slough Water Pollution Control Facility Update.

Since the White Slough Water Pollution Control Facility (WSWPCF) was originally constructed in 1966, the City of Lodi has consistently made improvements that either expanded capacity or included necessary maintenance on this 53-year-old facility.

Over the past four years, Council has authorized the design and construction of three projects at WSWPCF. Two capital maintenance projects that include corrosion repairs and updating obsolete Supervisory Control and Data Acquisition System components and a new 300-acre-foot recycled water storage expansion pond.

Council will receive a presentation from Staff that will provide an overview of the facility, details about the above mentioned projects that have either been completed or are nearing completion; and a discussion regarding the projects that are programmed over the next 5 years along with a projection of costs.

Not applicable.

Not applicable.

Charles E. Swimley, Jr.
Public Works Director

Stephen Schwabauer, City Manager
White Slough Water Pollution Control Facility Update

Shirtsleeve Meeting

June 25, 2019
Outline

• Facility Overview
• Project History
• Planned Capital Projects
• Questions
WSWPCF Property

Municipal Wastewater

Recycled Water Storage Pond

Industrial Wastewater
Project History

• July 2016 – Corrosion Repair Project

• May 2017 – SCADA Upgrade Project
  - Arc Flash Study
  - SCADA System Upgrade
  - Predesign of Future Improvements

• April 2018 - Recycled Water Pond Storage Project
  - 300 AF Recycled Water Storage Pond
  - Title 22 Tertiary Water
  - Proposition 84 Grant Funded (75%)
2016 Corrosion Repair Project

• **Scope of Work:**
  – Repaired corroded concrete channels upstream of aeration basins;
  – Replaced corroded steel 24-inch diameter aeration pipeline
  – Repaired corroded steel cover of Digester No. 3
  – Installed water level sensors in storage pond
  – Installed temperature sensors on digester heat-exchanger piping

• **Schedule** – July 2016 to September 2017

• **Construction Cost** - $1,989,872
Corroded Concrete Channel Repair

Typical channel following cleaning and sand-blasting, prior to repair.

Channel following repairs and application of both epoxy-mortar and polyurethane coatings.
Replacement of 24-Inch Aeration Pipe

Pipe that was replaced.

New concrete-encased stainless steel pipe.
Repairs to Digester No. 3 Cover

Corrosion created holes and pitted areas in the interior of the steel cover.

Steel plates were welded over the holes and pitted areas and the cover was coated with chemical-resistant epoxy coating.
2017 SCADA Upgrade Project

- **Scope of Work**
  - Arc-Flash Study
  - SCADA System Upgrade
  - Investigate UV System Communication Problem
  - Preliminary Design of Future Improvements

- **Schedule** – May 2017 to October 2019

- **Cost** - $770,010
• Arc-flash is not shock (current flow through a body).

• Arc-flash is physical energy (heat, pressure wave, sound) released by a short circuit; an arc-welder is a controlled arc-flash.

• Arc-flash study complete.

• On-going safety effort.
Arc-Flash Study

• Findings
  - Existing electrical equipment is aging, spare parts difficult to find.
  - Arc-flash exposure risk varies throughout the plant.

• Actions taken
  - Arc-flash exposure data base.
  - Settings on equipment protective devices modified to reduce arc flash risk.
  - Conducted OSHA certified training for WSWPCF staff.
SCADA System Upgrade

• **Scope of Work:**
  – Replace existing / aging server with pair of modern / redundant servers in dedicated server rack
  – Replace existing obsolete graphical control system
  – Replace obsolete graphics.

• **Benefits:**
  – Increased reliability – regulatory compliance
  – Simplify treatment process troubleshooting and plant diagnostics
  – Increased data acquisition
  – Increased security
  – Allows for wireless support (tablets, etc.) for monitoring and process control
Recycled Water Pond Storage Project

- **Scope of Work:**
  - Construct 300 acre-ft. Storage Pond
  - Install pump station and conveyance piping
  - Install electrical instrumentation
  - Modify existing structures

- **Benefits:**
  - Minimizes discharge to Delta
  - Expands recycled water opportunities
  - Benefits groundwater recharge – Sustainable Groundwater Management Act (SGMA)

- **Schedule** – April 2018 to July/August 2019

- **Cost** - $5,125,000
Recycled Water Pond Storage Project
Recycled Water Pond Storage Project
December 2018: Regional Water Board issued the City a permit under the Recycled Water General Order
- Storage and use of high-quality recycled water (Disinfected Tertiary) in the new pond
- Providing recycled water for offsite, public use
- Specific offsite uses not yet identified, but could include:
  - Landscape irrigation
  - Construction activities
  - Dust control
  - Crop irrigation
Planned Capital Projects

• Aeration Blower Upgrade Project
  – Install 2 new variable speed blowers
  – Energy savings
  – Increased process control
  – Cost $750,000
  – FY 2019/20

• Considering Energy Service Company (ESCO) procurement
Planned Capital Projects

- **South Electric Building Replacement Project**
  - Relocate existing electric building
  - Upgrade obsolete electric infrastructure
  - Building components reaching useful life
  - Coarse screen and septage receiving improvements
  - Aeration diffuser improvements

- **Schedule: Design**
  - FY19/20 > 20/21 = $1.5M

- **Construction**
  - FY21/22 > 23/24 = $13.5M

- **Cost:** $15,000,000
Planned Capital Projects

• Fan Press Installation Project
  – Install additional fan press

• Schedule: Construction  FY23/24

• Cost: $1,000,000
Visual Examples
### Planned Capital Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>FY 19-20</th>
<th>FY 20-21</th>
<th>FY 21-22</th>
<th>FY 22-23</th>
<th>FY 23-24</th>
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**Total** | **$2,215,000** | **$1,120,000** | **$2,200,000** | **$7,960,000** | **$6,950,000**
## Planned Capital Projects

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<th>Project Description</th>
<th>FY 24-25</th>
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Questions???