



# Semiannual CIP Status Report (January – September 2021)

*Transportation and Environmental Committee*

**November 1, 2021**

*Presenters:*

*David Ohlson – Division Manager, CIP*

*Norman Mascarinas – Principal Construction Manager*





# Significant Program Activities

- Biosolids Disposition Procurement Strategy
  - TPAC approved biosolids strategy
- Program-wide Safety Review
  - Overall, RWF construction safety program is working well
    - » *1 million hours worked, zero OSHA reportable incidents*
  - Staff is implementing improvements
- Process Optimization Study
  - Holistic evaluation of the RWF liquids treatment processes
  - Recommends implementation of SND/inDENSE technology in RWF secondary treatment area

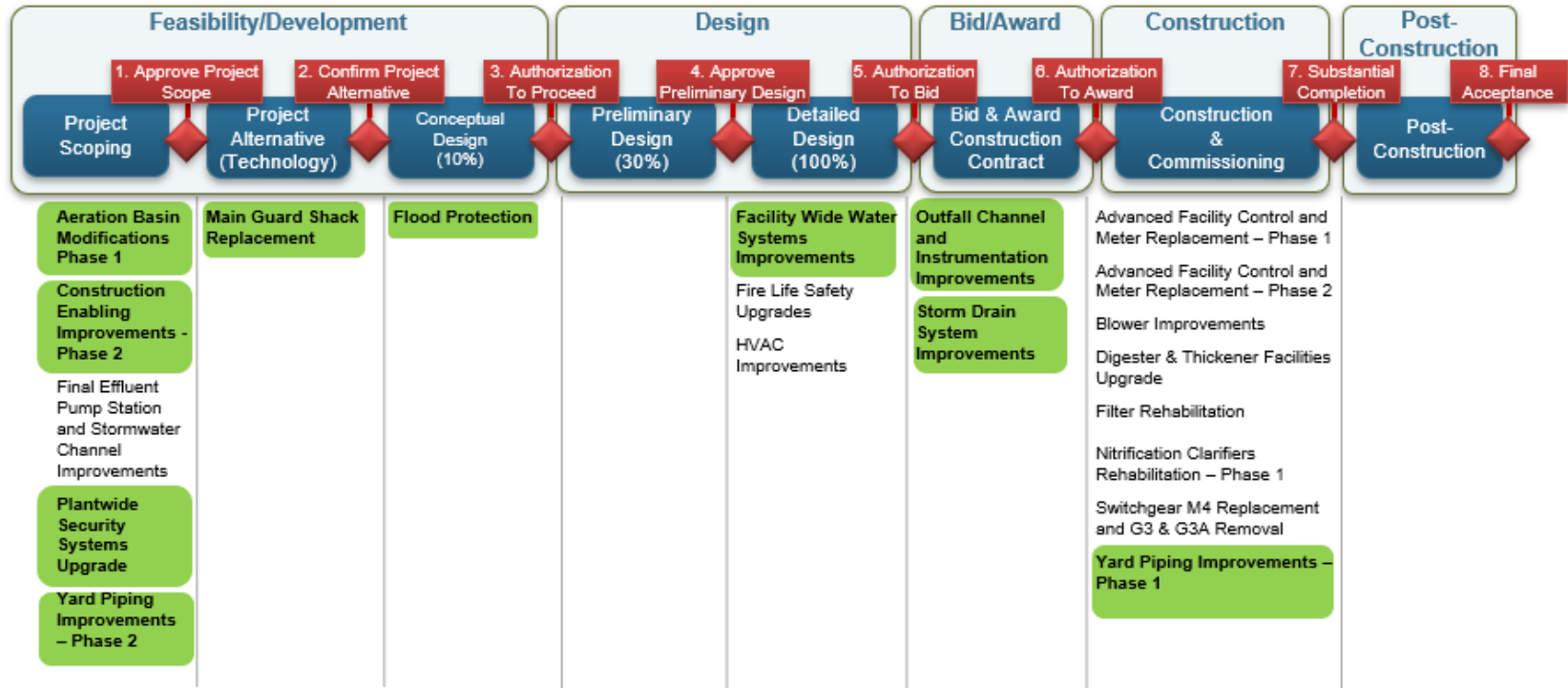


- New Safety Banners Installed Around the RWF.

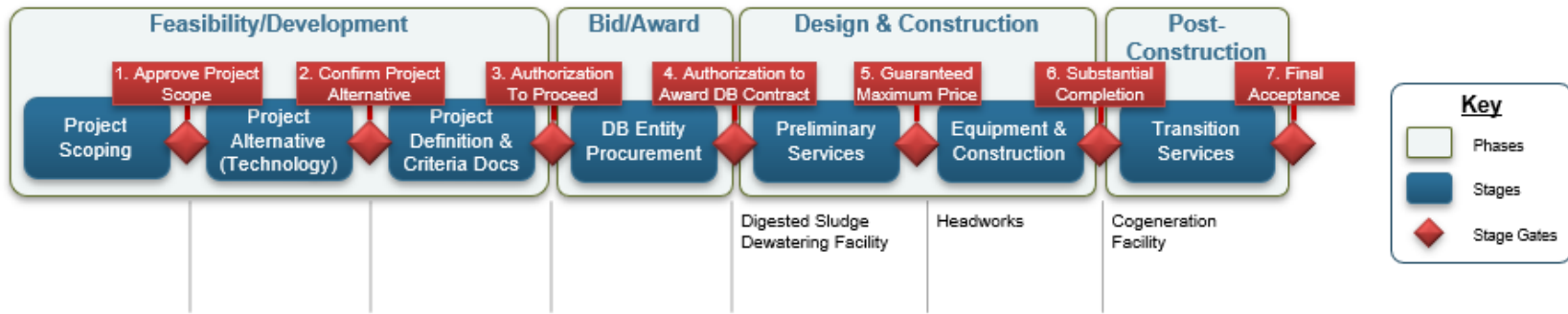


# Program Snapshot: All Projects

## Design-Bid-Build Active Projects



## Progressive Design-Build Active Projects



# Seven Projects in Feasibility/Development

## Scoping

- Aeration Basin Modifications – Phase 1
- Final Effluent Pump Station and Stormwater Channel Improvements
- Construction Enabling Improvements – Phase 2
- Yard Piping Improvements – Phase 2
- Plantwide Security Systems Upgrade



- Consultants on a site walk for the Flood Protection Project



- Contractor preparing for a condition assessment for Yard Piping Improvements – Phase 2

## Project Alternatives

Main Guard Shack Replacement

## Conceptual Design

Flood Protection



# Six Projects in Design and Bid/Award

## Preliminary Design

- Facility Wide Water Systems Improvements

## Detailed Design

- Fire Life Safety Upgrades
- HVAC Improvements

## Bid & Award

- Outfall Channel and Instrumentation Improvements
- Storm Drain System Improvements

## Preliminary Services

- Digested Sludge Dewatering Facility



- Contractor hand digging to expose utilities for the Facility Wide Water System Improvements Project



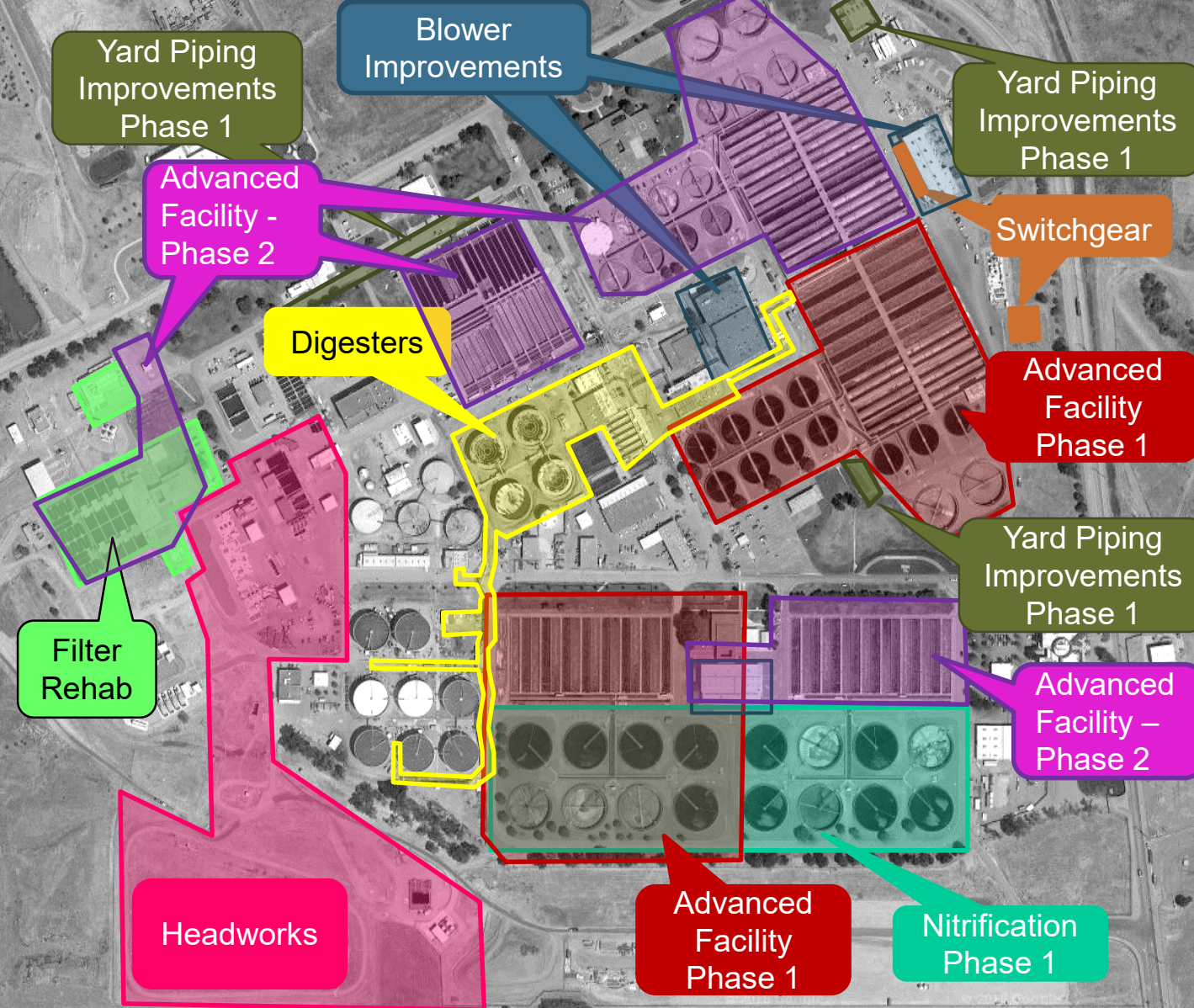
- Digested Sludge Dewatering Facility centrifuge testing.

# Nine Projects in Construction

- Advanced Facility Control and Meter Replacement – Phase 1 (**\$5.79M**)
- Advanced Facility Control and Meter Replacement – Phase 2 (**\$7M**)
- Blower Improvements (**\$29.5M**)
- Digester and Thickener Facilities Upgrade (**\$107.9M**)
- Filter Rehabilitation (**\$33.3M**)
- Headworks (**\$126.9M**)
- Nitrification Clarifiers Rehabilitation – Phase 1 (**\$26.1M**)
- Switchgear M4 Replacement and G3 & G3A Removal (**\$5.5M**)
- Yard Piping Improvements – Phase 1 (**\$3.1M**)



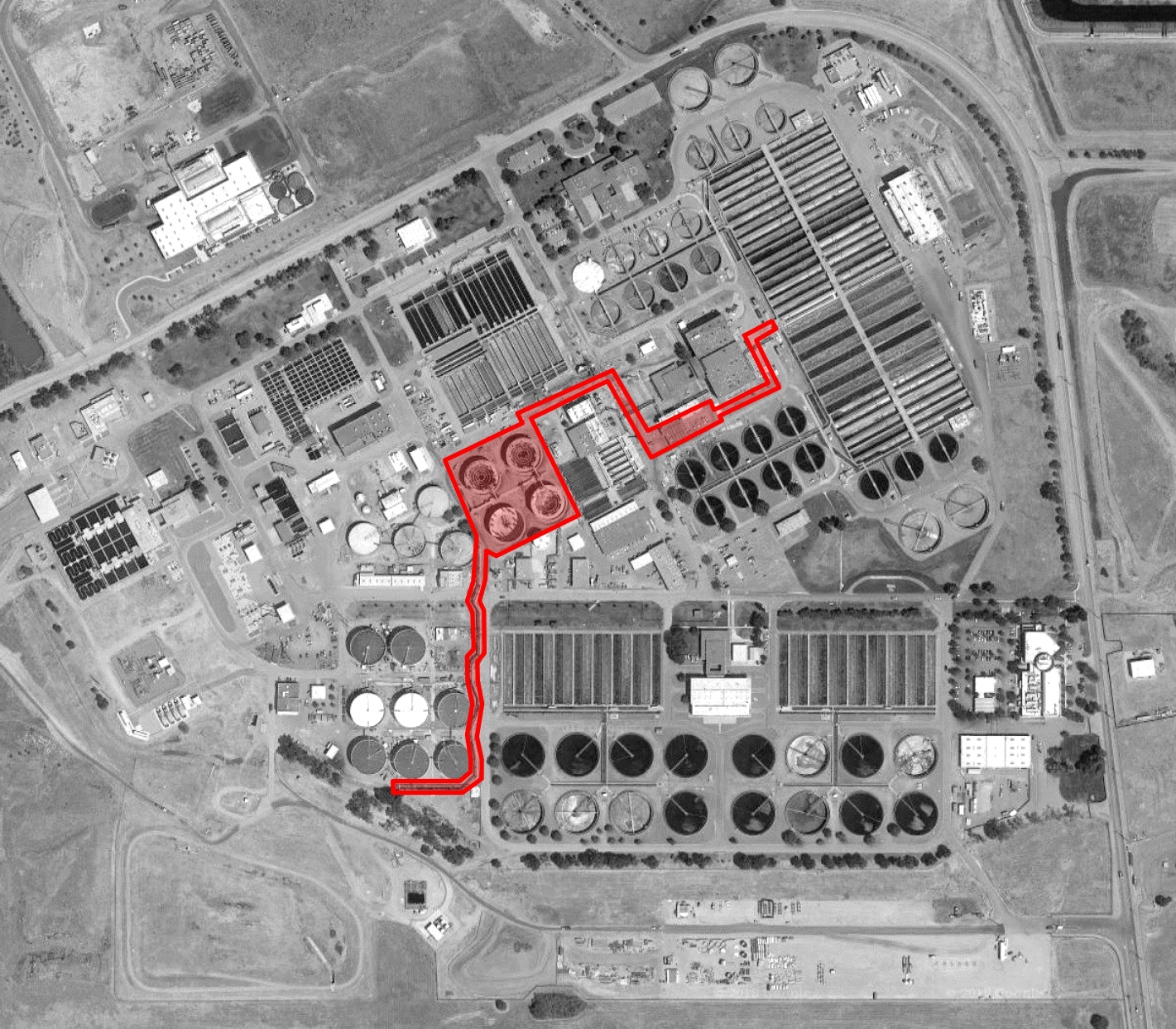




# Nine Projects In Construction

Total Base Construction Value: \$345M





# Digester & Thickener Facilities Upgrades Project

Construction Value: \$107.9M | Estimated Beneficial Use: Spring 2022



# Digester Upgrades



- Contractors completing digester pipe installation.
- Functional testing of the thickened sludge tanks in the Sludge Screening Building.

# Digester Upgrades



- Digesters and DAFT facilities as of July 2021



An aerial photograph of a large industrial facility, likely a wastewater treatment plant. The facility features numerous large circular tanks, rectangular aeration basins, and various support buildings. A specific area on the left side of the plant is highlighted with a red overlay, indicating the site of the Headworks Project. The surrounding area includes roads, parking lots, and some greenery.

# Headworks Project

**Construction Value: \$126.8M | Estimated Beneficial Use: Summer 2023**



# Headworks



- Progress on the Grit building.



- Aerial view of the 120-inch raw sewage line.



- Construction progress of the raw sewage pump station wet wells.



# Headworks



- 96-inch pipe installation before (July 2021) and after (August 2021).



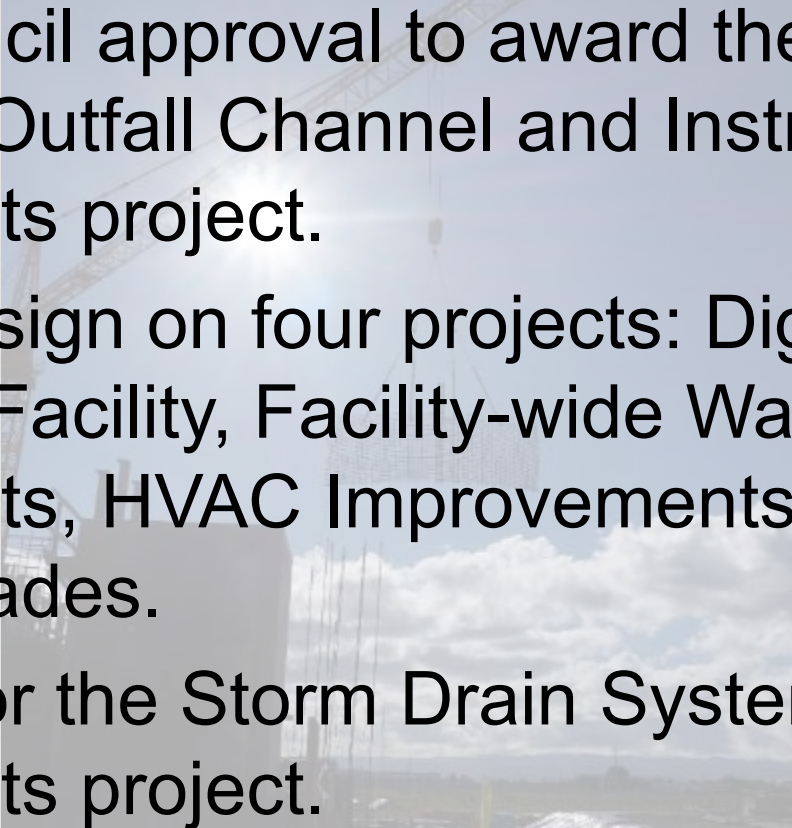
# Headworks



- Progress on construction of grit basin, influent structure, electrical building, EOB, etc. as of August 2021.



# Expected Activities through December 2021

- 
- Obtain Council approval to award the construction contract for Outfall Channel and Instrumentation Improvements project.
  - Continue design on four projects: Digested Sludge Dewatering Facility, Facility-wide Water Systems Improvements, HVAC Improvements, and Fire Life Safety Upgrades.
  - Open bids for the Storm Drain System Improvements project.