

**RAISE <sup>OUR</sup> GRADE,  
MINNESOTA**



*Welcome!*

## Drinking Water Infrastructure

**\*\* Please turn off your camera and mute your microphone \*\***

## 2022 Infrastructure Talks

February 10:

Utility Systems and Funding

**Today, February 17:**

**Water Infrastructure**

Thursday, February 24:

Wastewater Infrastructure

Thursday, March 3:

Stormwater Challenges

## Today's Participants

**Moderator:** Michelle Stockness, Barr Engineering, AWWA

**Speakers:** Lori Blair, MN Rural Water Association  
Chad Kolstad, MN Department of Health  
Willie Morales, City of Appleton  
Sen. Ann Johnson Stewart, Civil Engineer, Professor, Business Owner

## Today's Agenda

- ▶ **Drinking water infrastructure-** Michelle Stockness
- ▶ **Overview & comments-** Senator Ann Johnson Stewart
- ▶ **Needs across Minnesota-** Lori Blair
- ▶ **State funding programs-** Chad Kolstad
- ▶ **Case study: City of Appleton-** Willie Morales
- ▶ **Questions and discussion (5-10 min)**

# Drinking Water Infrastructure

SCADA  
control  
system



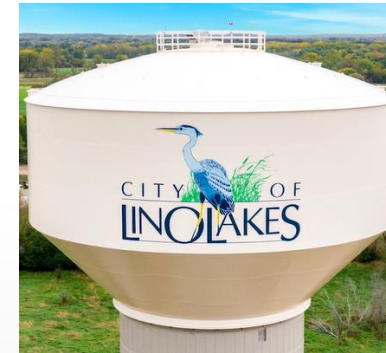
Source:  
wells or  
pump  
stations



Treatment  
facilities



Storage tanks



Residents  
and  
customers



Meters 

Raw water and distribution pipelines



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## Minnesota Rural Water Association

*Our Mission: To provide the latest information, education, and technical assistance to protect our public waters and improve the quality of life in Minnesota.*

### SMALL & RURAL MINNESOTA WATER SYSTEMS

#### 856 Cities in Minnesota

- 759 Cities with populations LESS THAN 10,000
  - OVER 1.5 Million Population Living in These Cities
- 95 Cities with populations GREATER THAN 10,000

966 Community Public Water Systems (23 are surface water systems)

- 730 municipal systems | 236 non-municipal systems

Nearly 80% of Minnesotan's Receive Their Drinking Water from Public Water Systems

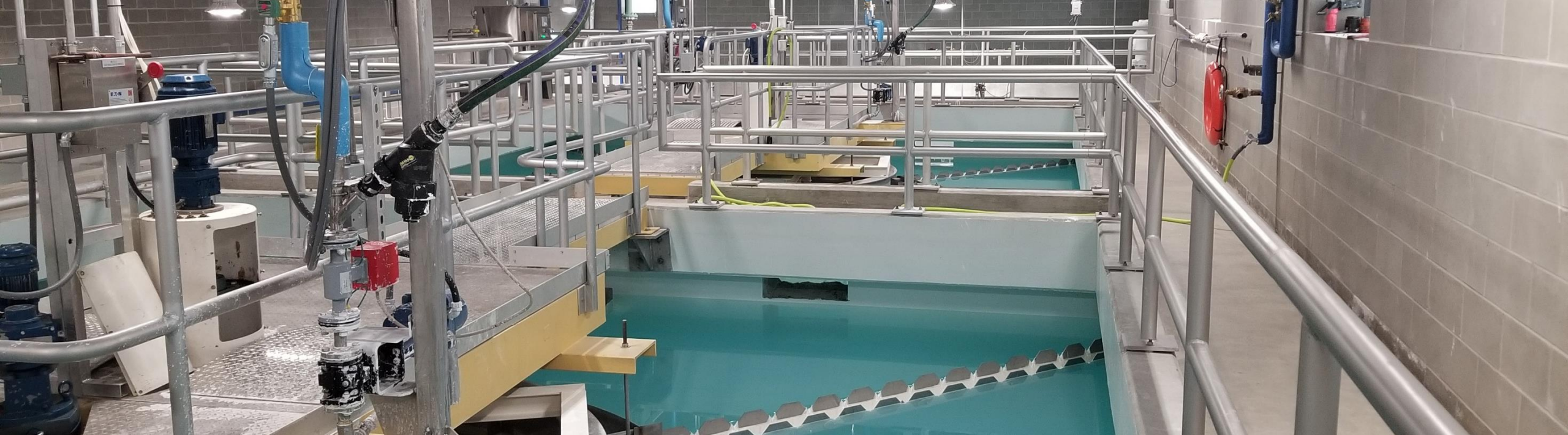
Investing in Rural Minnesota is IMPORTANT! It's Where we Live, Work, and PLAY!





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# Drinking Water Infrastructure Needs and Funding

Chad Kolstad, P.E. | DWSRF Program Coordinator

# Drinking Water Infrastructure Needs and Funding

- Basic Drinking Water Infrastructure Needs
  - Drinking Water Revolving Fund (DWRF) 2022 project list - \$1.22 billion
    - Treatment Plant upgrades & replacements – 50% of projects by cost
    - Watermain Replacement – 35% of projects by cost
    - Other projects – storage replacement, wells, meters, etc.
  - Normal DWRF Funding Capacity – approximately \$40 million
  - New Infrastructure Investment & Jobs Act (IIJA) - \$169 million total over the next 5 years
    - These IIJA funds will pass through the DWRF
    - Follow normal application process

# Drinking Water Infrastructure Needs and Funding

- Emerging Contaminants (EC) Needs
  - PFAS – “forever chemicals”
  - Manganese – Exceed state health advisories
- Eligible for funding under the normal DWRF program
- IJA grant funding for EC - \$58 million total over the next 5 years
- Current Rule changes will increase priority for EC projects

# Drinking Water Infrastructure Needs and Funding

- Lead Service Line (LSL) Replacement
  - Total need unknown
  - Public Water Supplies need to complete an inventory by October 2024
- Eligible for funding under the normal DWRF program
  - 50% grant for privately owned portion of the service line
  - Whole service line needs to be replaced to receive funding
- IJJA funding for LSL Replacement - \$43million/year for the next 5 years
  - 49% grant/51% DWRF loan split
  - If proposed State legislative changes pass, grant funding can be spread across the whole LSL



# Thank You!

**Chad Kolstad, P.E.**

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November 17, 2021

**Bob Schlieman, PE**  
City Engineer

Appleton Water Treatment Facility  
**Construction Progress Update**



**Apex**  
Engineering Group

Group

# Presentation Overview

- 1 **Project Background and Key Components**
- 2 **Key Milestones for Project**
- 3 **Current Status of Project**
- 4 **Key Remaining Components**
- 5 **Questions**





# 1 Project Background



- Current Groundwater Water Treatment Facility Beyond Design Life
- City submitted successful funding application to the Minnesota Public Facilities Authority (MNPFA)
- MNPFA Loan Award Total: \$6,071,937
- Total Construction Cost For Project:
  - Construction Cost: \$4,938,500



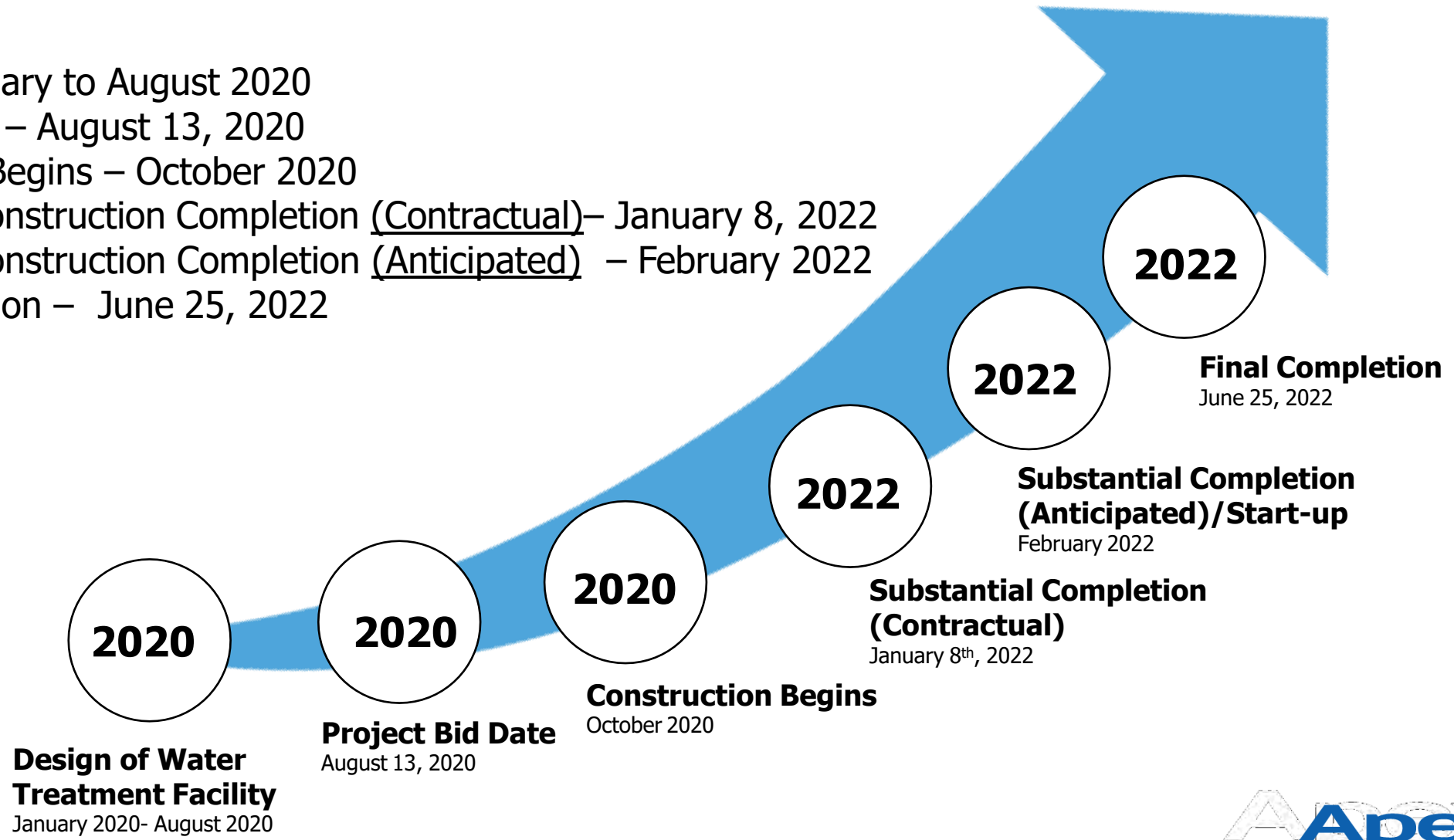
# 1 Project Key Components

- Construction Scope Includes:
  - 600 GPM Capacity Groundwater Plant
    - ▶ Innovative Oxygen Treatment System
    - ▶ Split Detention Basin
    - ▶ Chemical Feed System
    - ▶ Filtration System
      - Optimized for Iron and Manganese Removal
    - ▶ Two New High Service Pumps for Treated Water Pumping
  - Safety and Laboratory Equipment to Operate Facility
  - Installation of Site Utilities
  - New Well and Well Pumps



## 2 Key Milestones for Project

- Design – January to August 2020
- Bids Received – August 13, 2020
- Construction Begins – October 2020
- Substantial Construction Completion (Contractual) – January 8, 2022
- Substantial Construction Completion (Anticipated) – February 2022
- Final Completion – June 25, 2022



## 3 Current Construction Status



### ■ Construction Progress:

- Approximately 84% Complete (based on Partial Pay Estimates)
  - ▶ Building Construction/Site Utilities Mostly Complete
  - ▶ Interior Pipework Mostly Complete
  - ▶ Currently Working on:
    - Filling Filter with Filtration Media (Gravel/Sand)
    - Finishing Installation of Chemical Feed Equipment
    - Interior Electrical Work and HVAC
    - Installation of Sidewalk

### 3 Current Status: Building Exterior/Interior





### 3 Current Status: Chemical Feed/Oxygenation System





## 4 Key Project Components Remaining to Complete



- Installation of Electrical Panels and Electrical Switchgear
  - ✦ Currently Delayed
- Other Miscellaneous Items (Painting, Plumbing, Etc.)
- Training of Staff on Usage and Operation of Equipment
- Facility Startup
- Demolition of Existing Water Treatment Facility (anticipated in early 2022)
- Installation of Driveway and Fence (anticipated to occur in Spring 2022)

# 5 Questions?



- Contact Bob Schlieman:
  - [Bob.Schlieman@ApexEngGroup.com](mailto:Bob.Schlieman@ApexEngGroup.com)



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QUESTIONS?