



Glen Drive Water Treatment Plant

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July 19, 2023



**CDM
Smith**[®]

What Can We Help With Today?

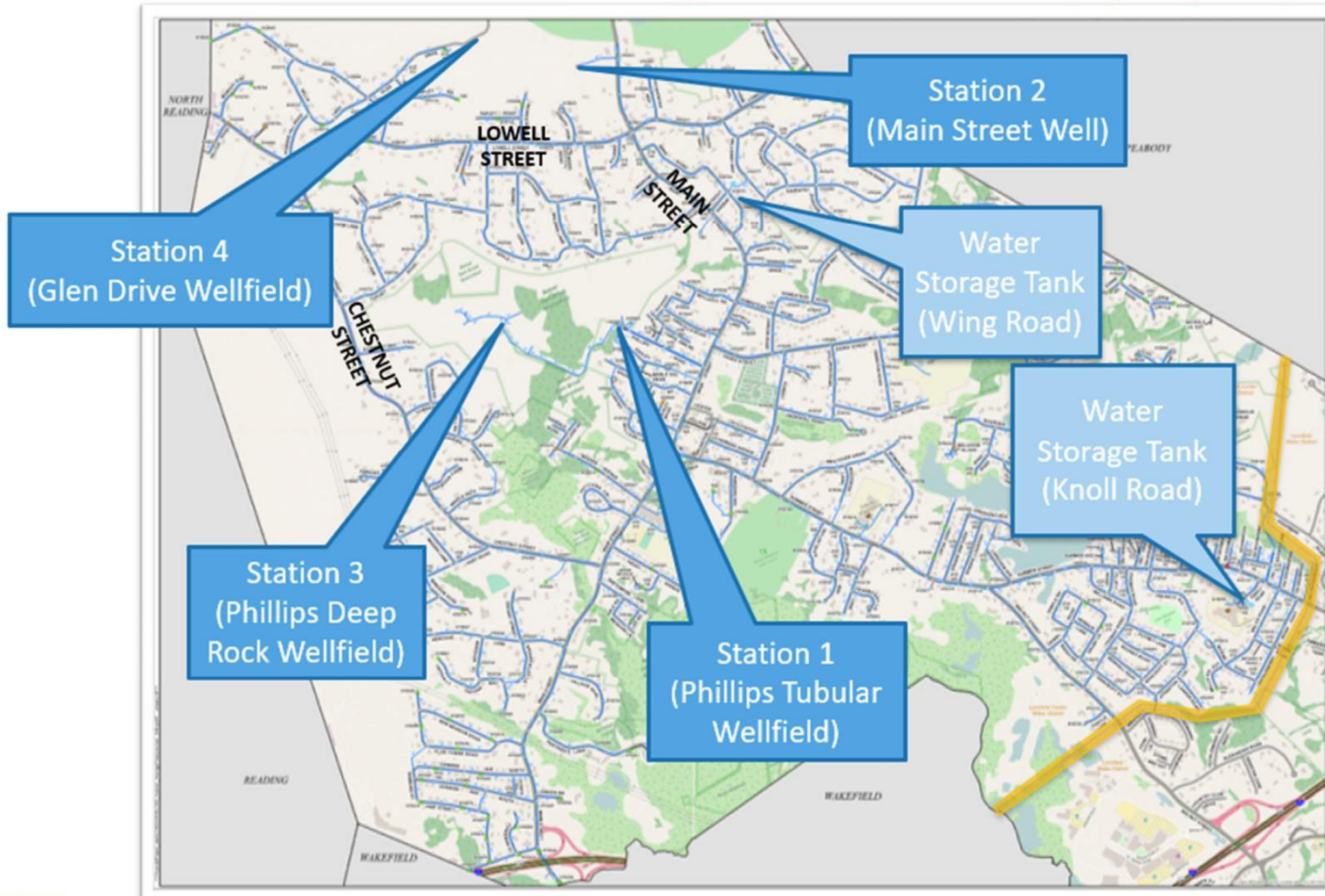
- LCWD's Capital Program Overview
- Glen Drive Water Treatment Plant Project
 - Project overview
 - Q&A
- Follow Up Actions





Capital Program Overview

LCWD's Drinking Water Supply System



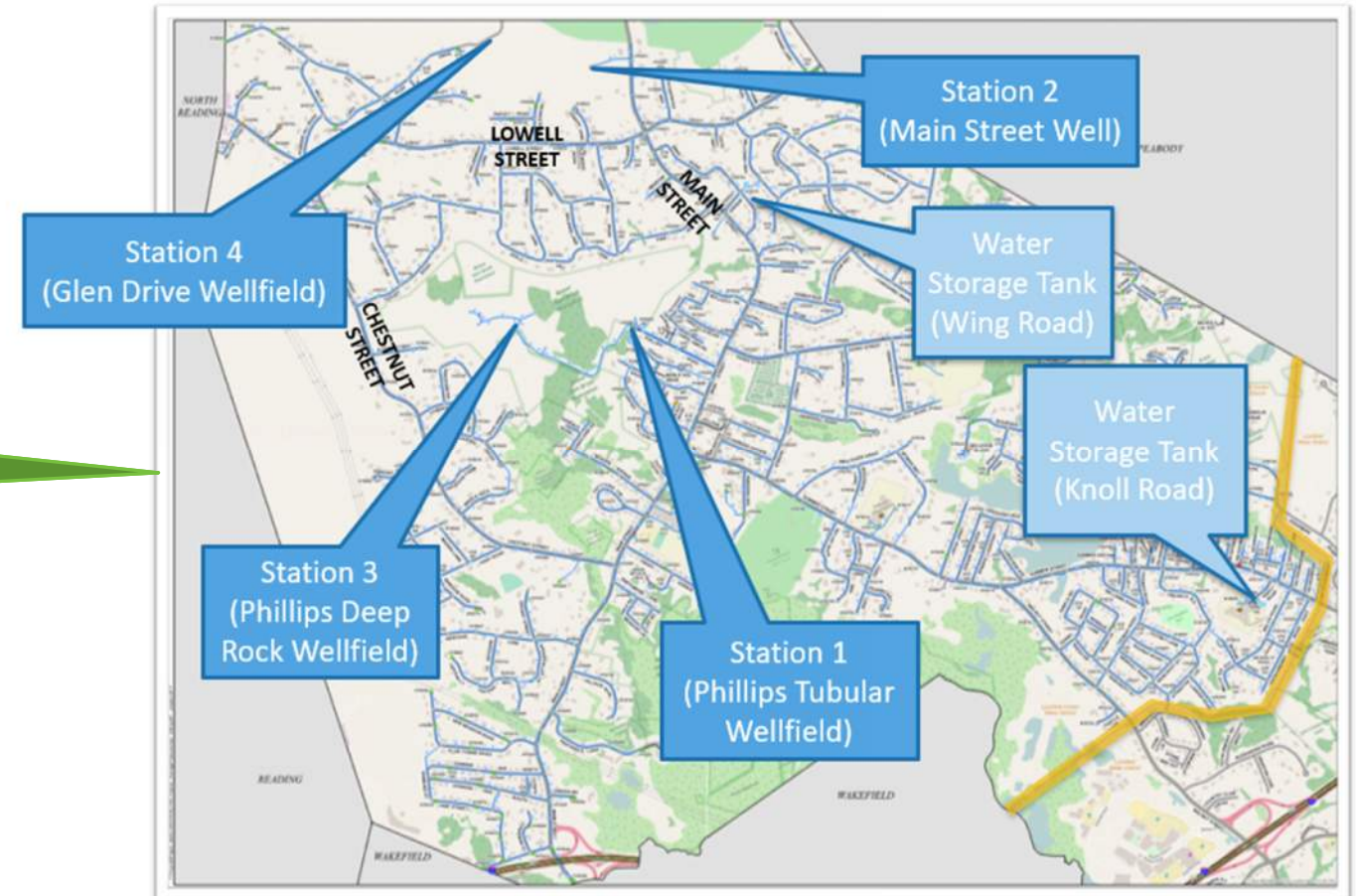
- **4 “Stations”**
 - Pump stations
 - Groundwater
 - Blend in system to provide needed water
 - Turn on to maintain storage tank levels

LCWD's Capital Program Overview (Original)

■ Quantity

- Challenged to meet summer demands (1.0-1.4 million gallons per day, MGD)
- No redundancy

1.0-1.2 MGD
maximum capacity



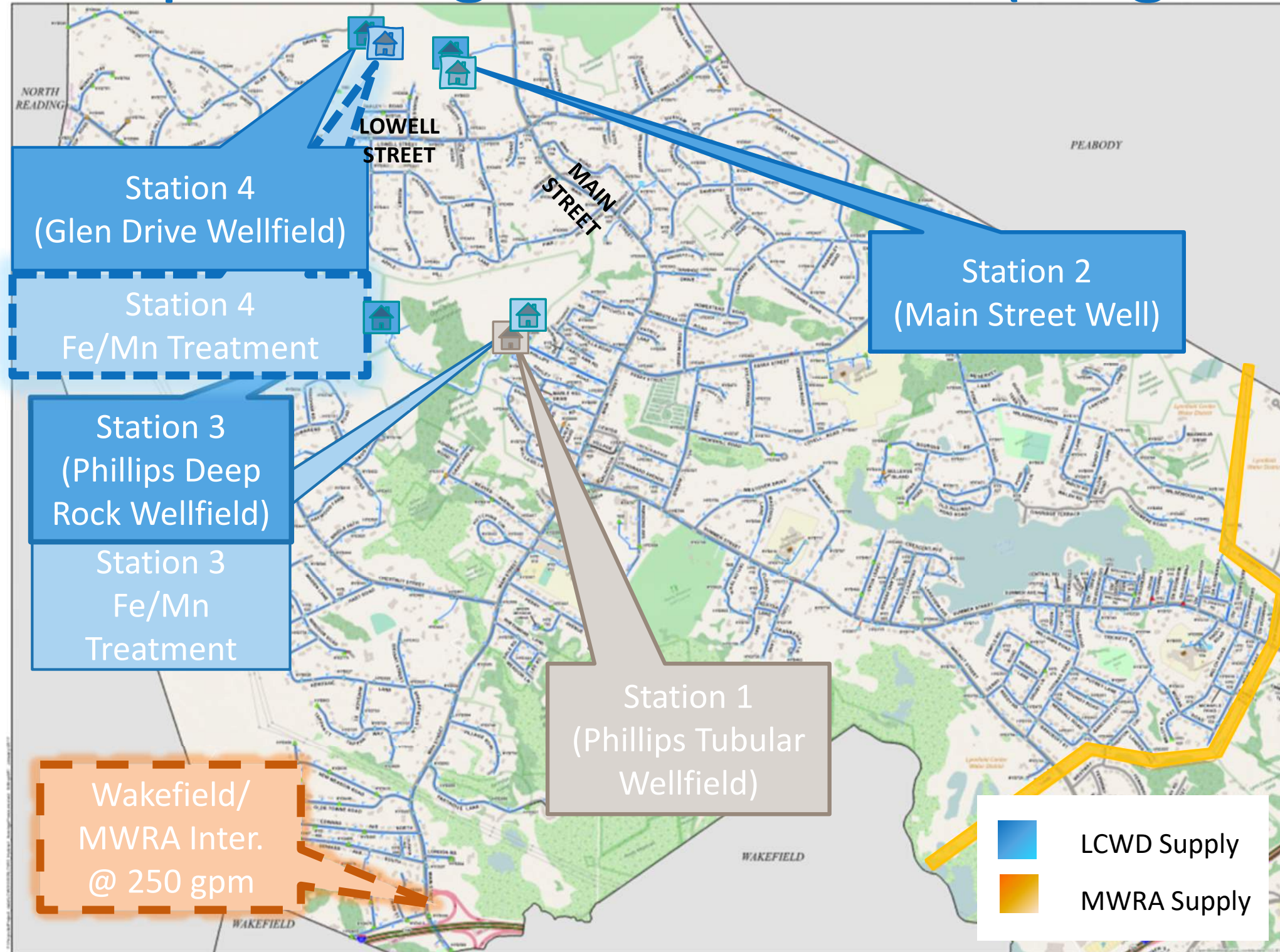
LCWD's Capital Program Overview (Original)

- **Quality**

- Station 4 (Glen Drive) iron and manganese

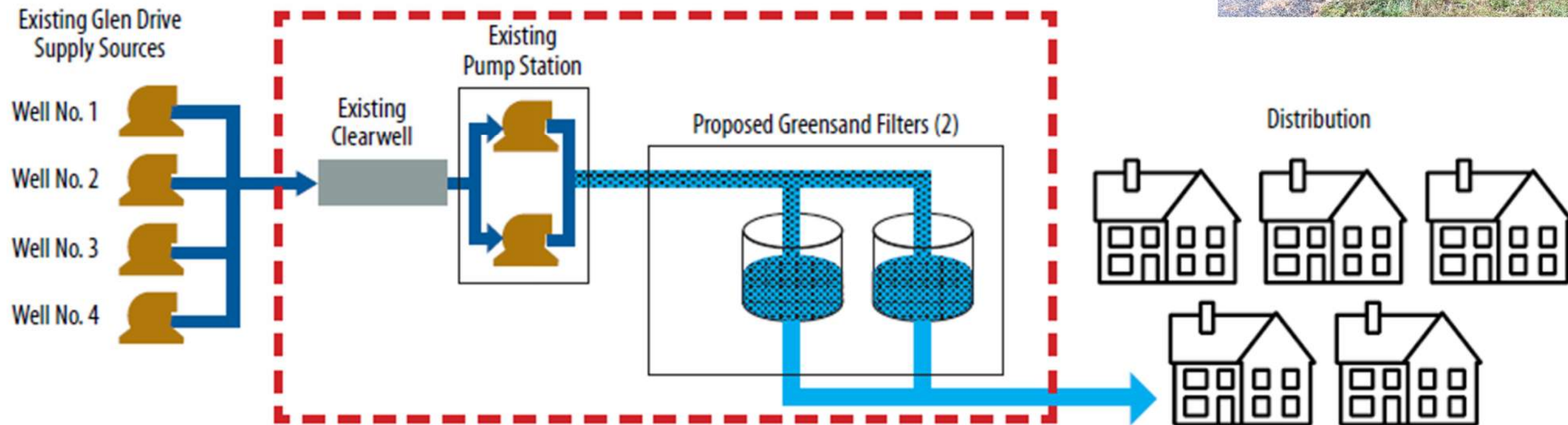


LCWD's Capital Program Overview (Original)



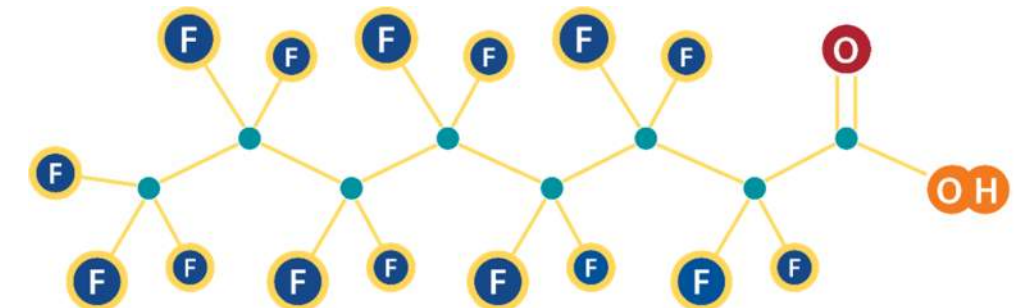
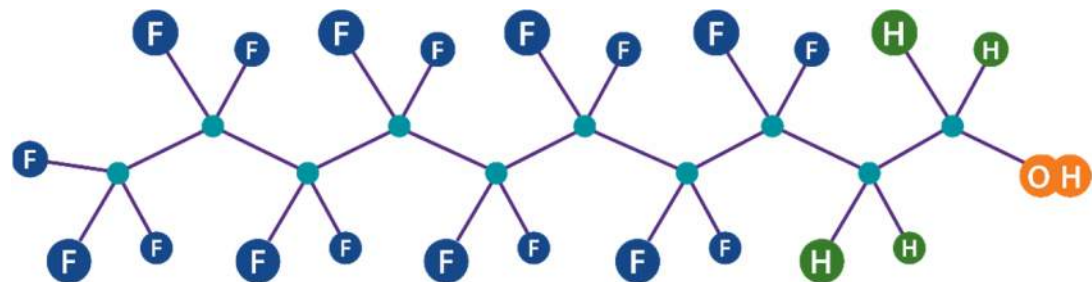
Glen Drive WTP Design (Original)

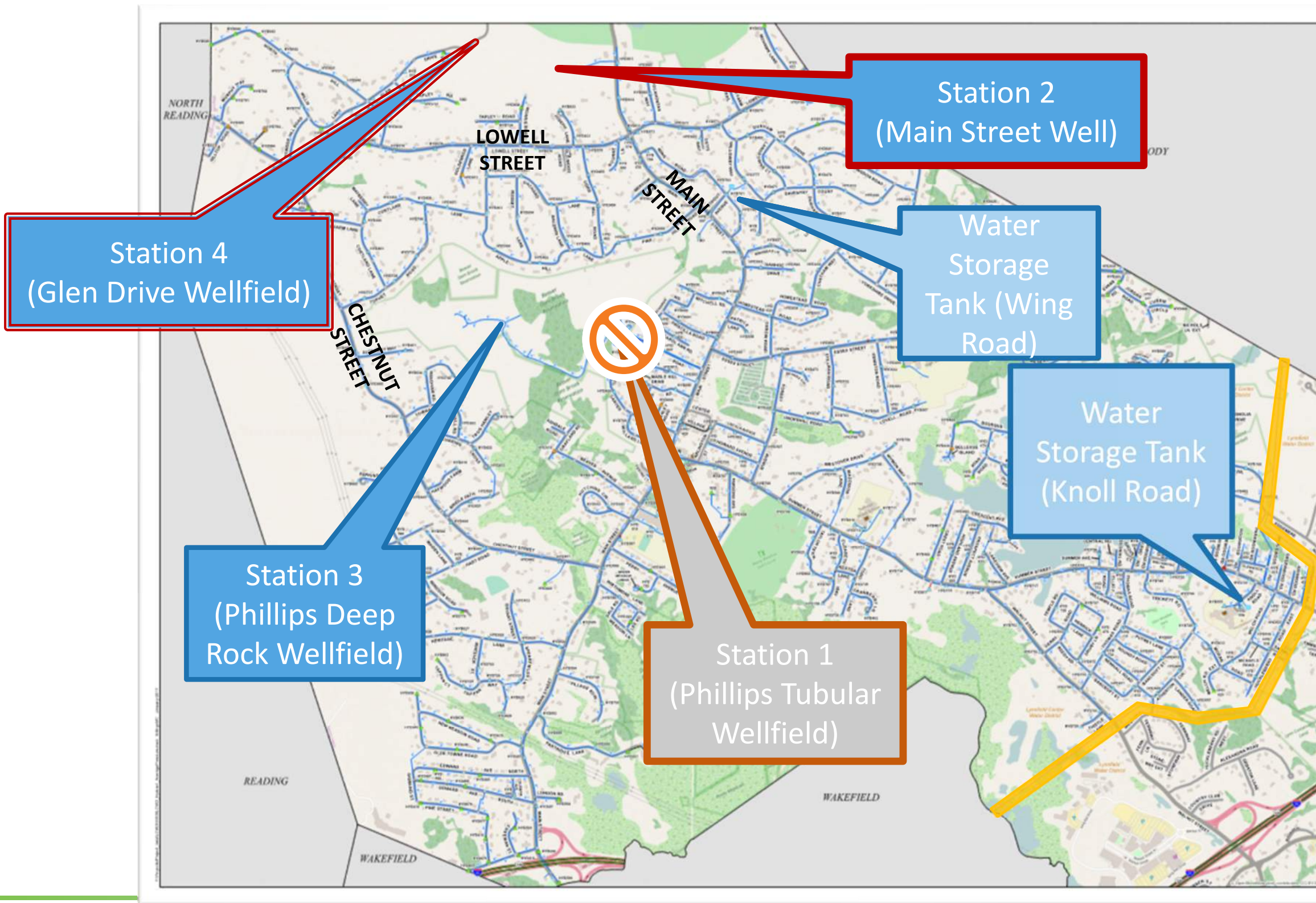
- Existing Glen Drive Pump Station
- Addition of greensand filters to remove iron and manganese



Adding PFAS to the Capital Program

- Per- and polyfluoroalkyl substances (PFAS) = group of human-made substances that...
 - Do not break down easily
 - Stay in the environment for a long time
 - Manufactured & used broadly since the 1950s
 - Are widely detected in soil, water, and food
 - Are newly linked to human and environmental health risks





= over MA MCL

= over proposed Federal MCL

Station 4
(Glen Drive Wellfield)

Station 2
(Main Street Well)

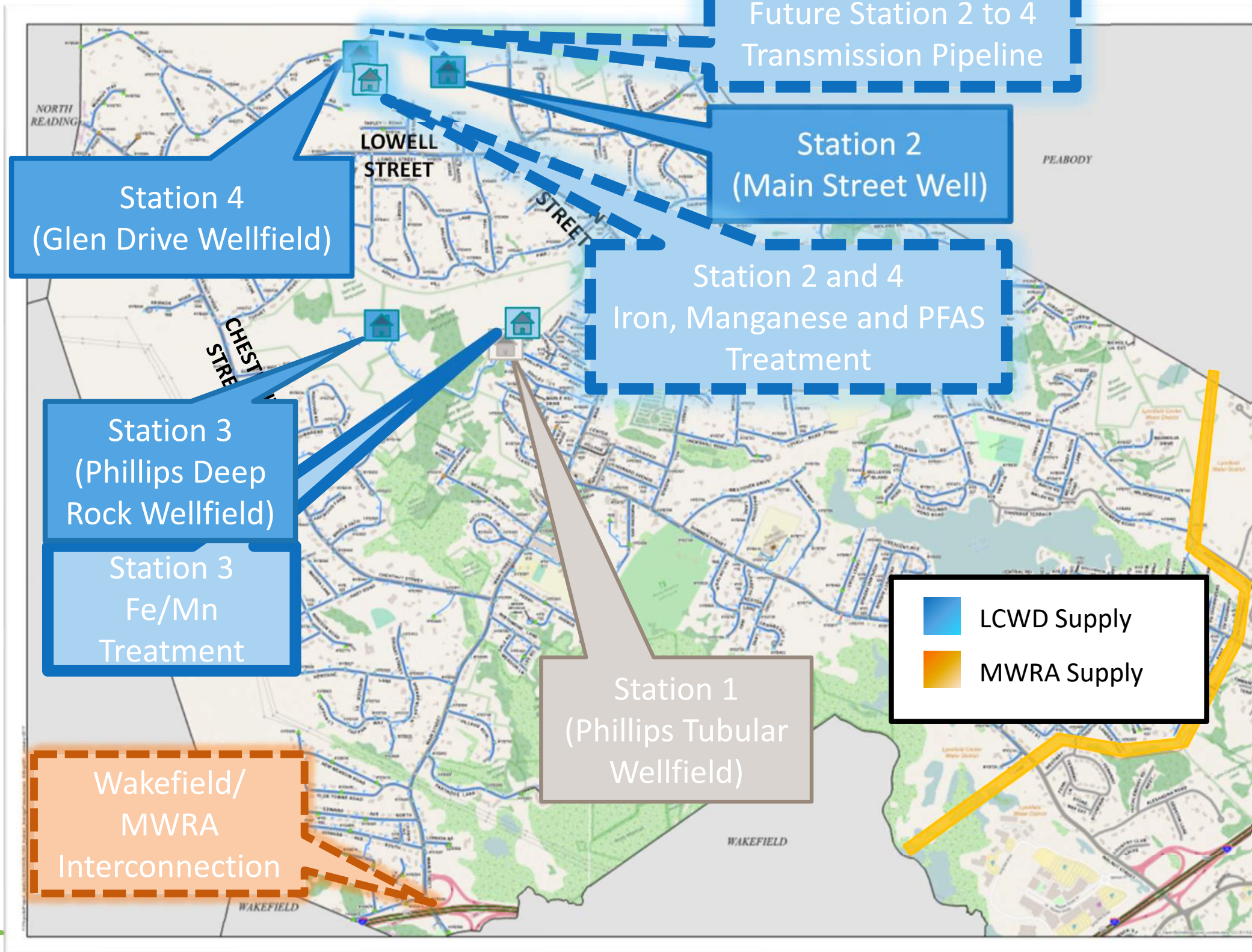
Water Storage Tank (Wing Road)

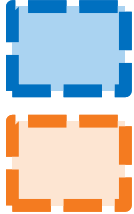


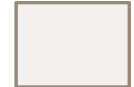
Water Storage Tank (Knoll Road)

Station 3
(Phillips Deep Rock Wellfield)

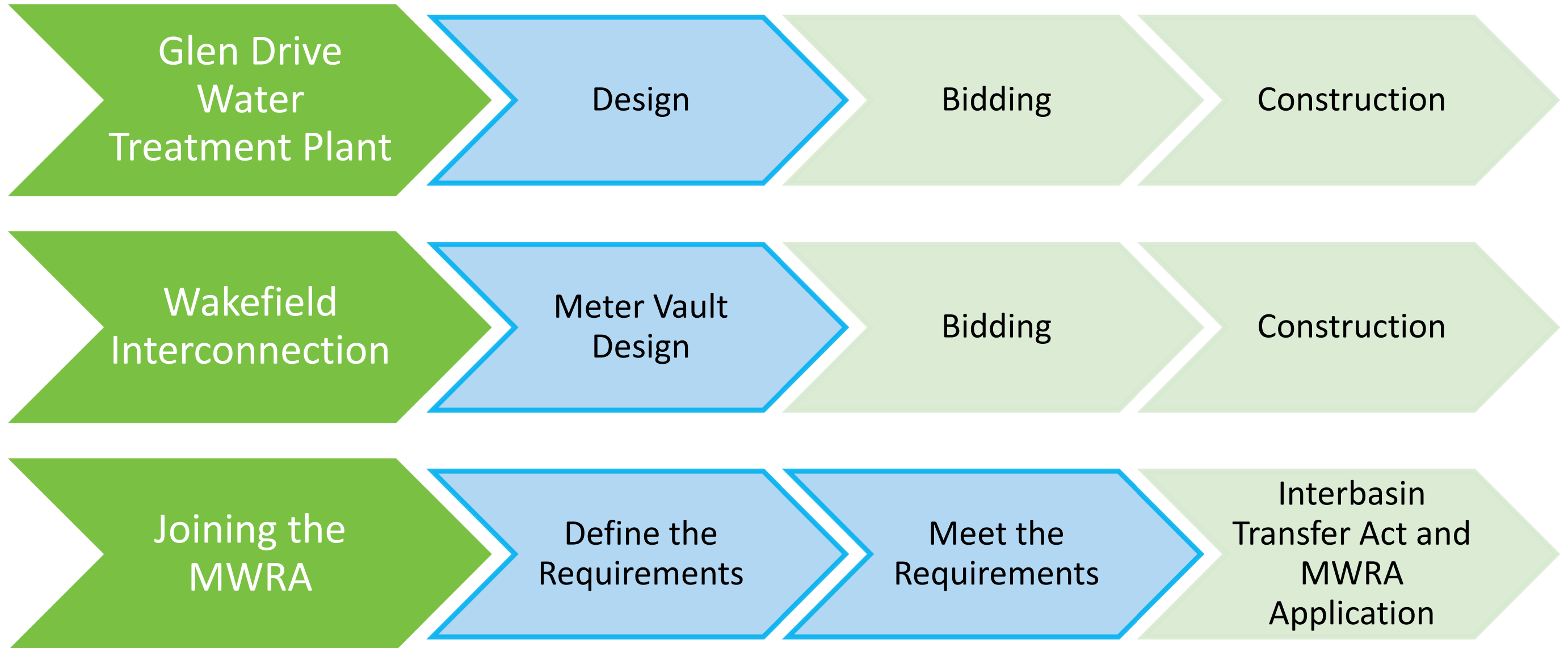
Station 1
(Phillips Tubular Wellfield)

LCWD's Capital Program



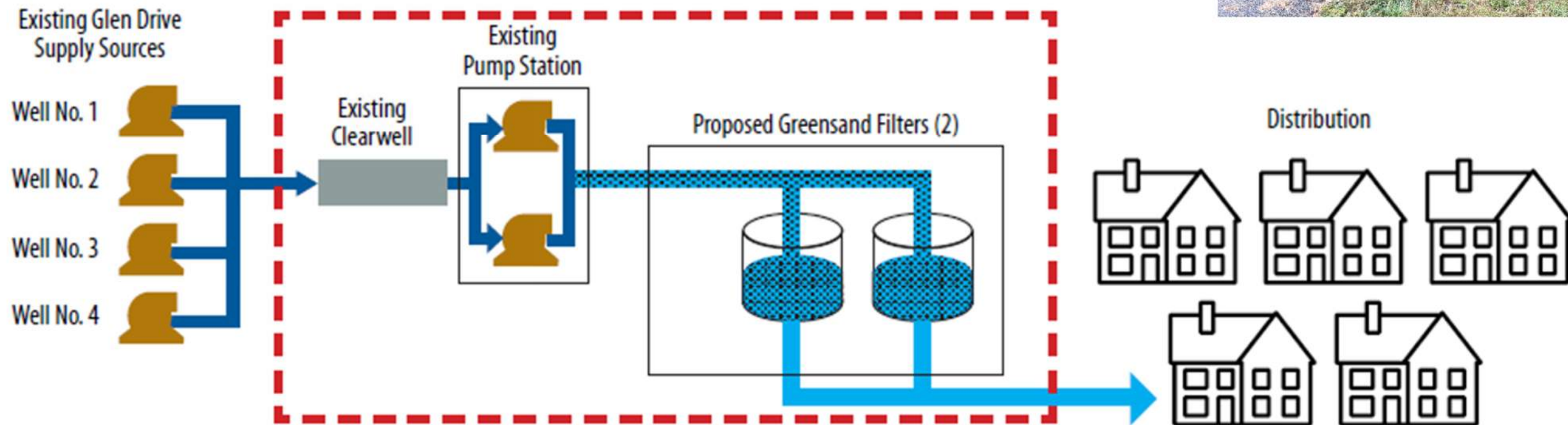
-  = Capital program projects
-  = Existing supply
-  = Existing treatment
-  = Offline supply

Capital Program Projects



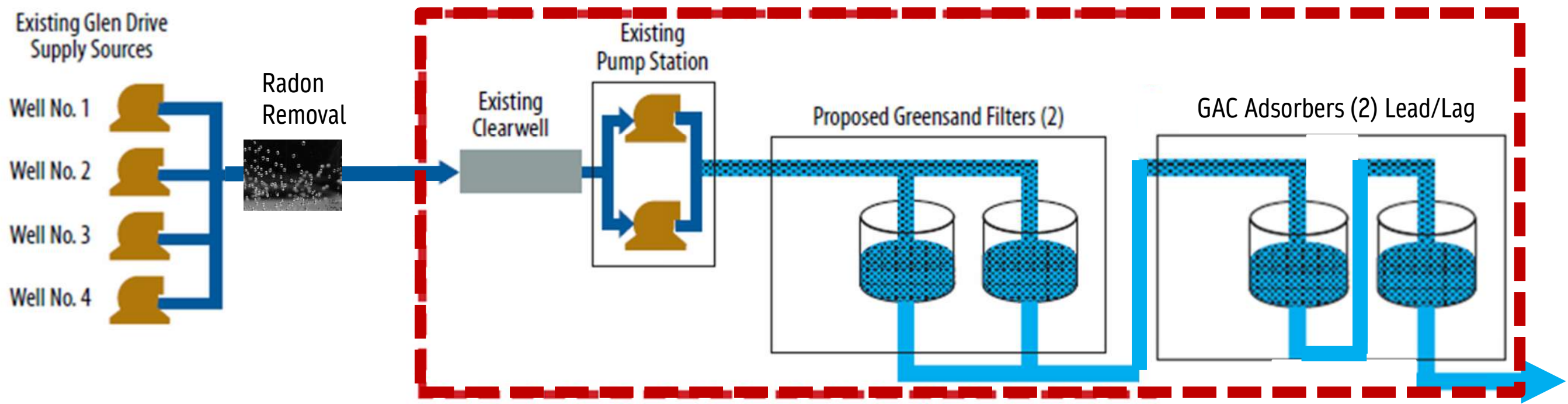
Glen Drive WTP Design (Original)

- Existing Glen Drive Pump Station
- Addition of greensand filters to remove iron and manganese



Glen Drive WTP Design (with PFAS)

- Greensand filters to remove iron and manganese
- Granular activated carbon (GAC) to

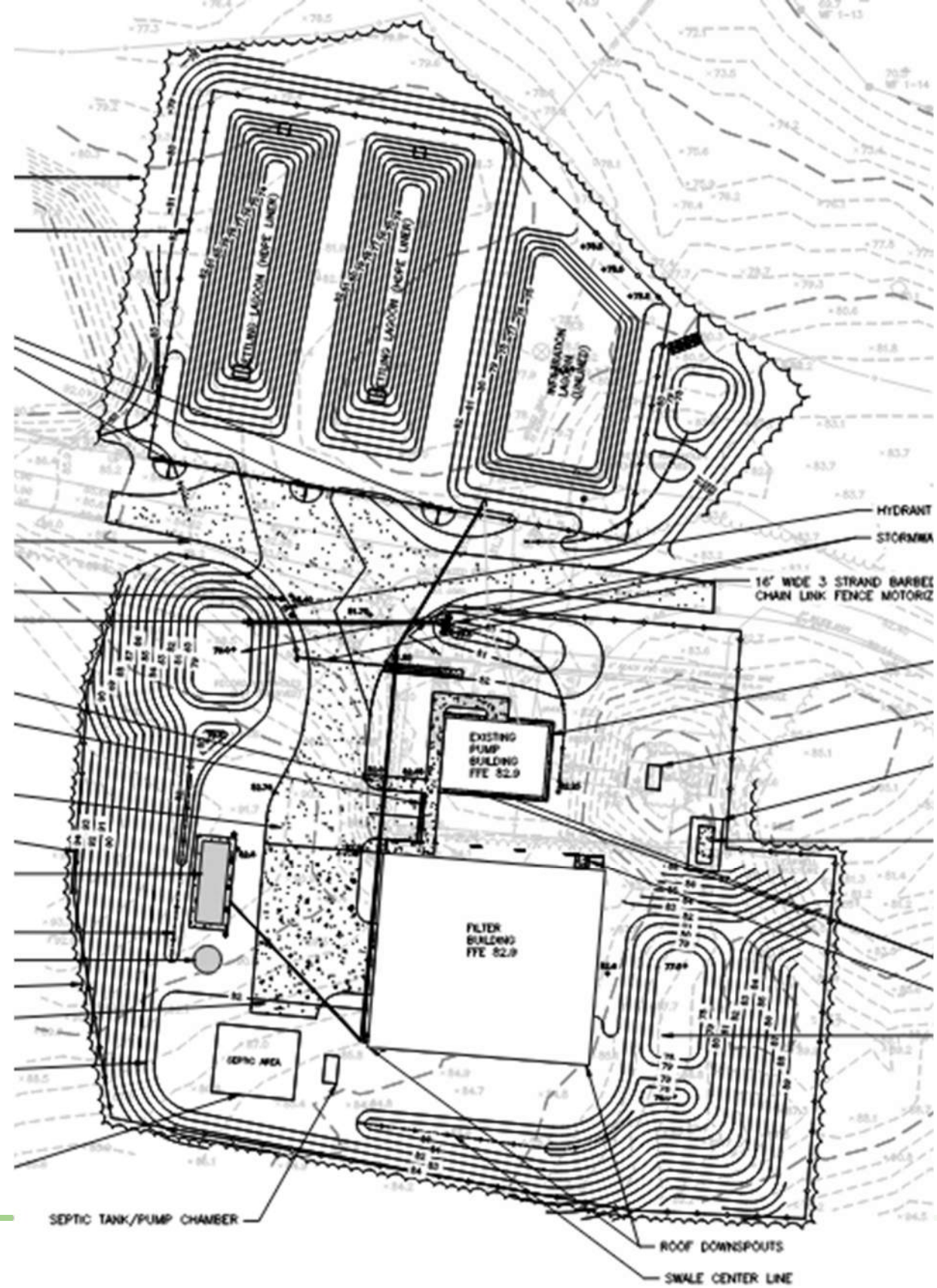




Glen Drive WTP Overview

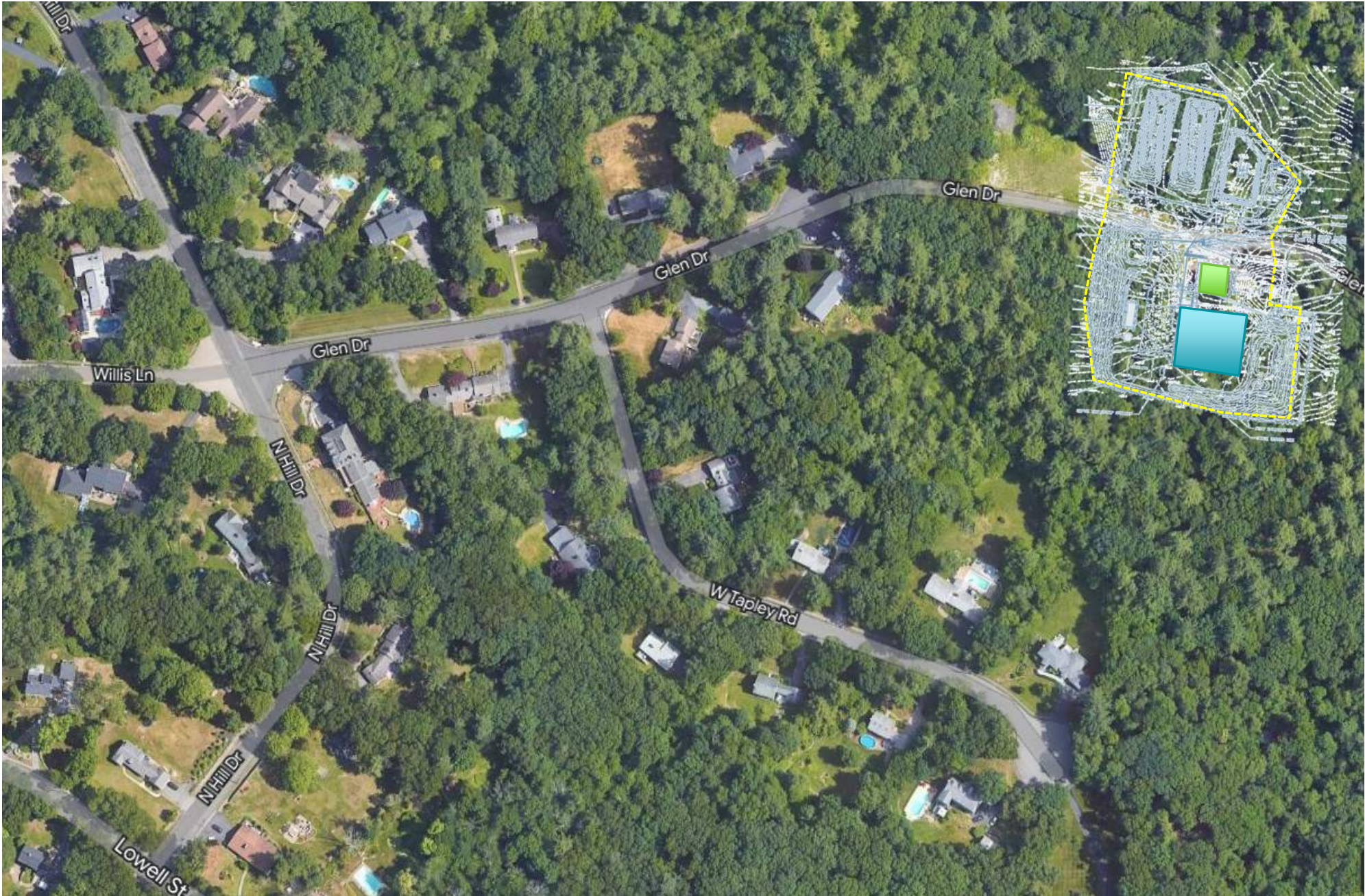
Existing Glen Drive Site

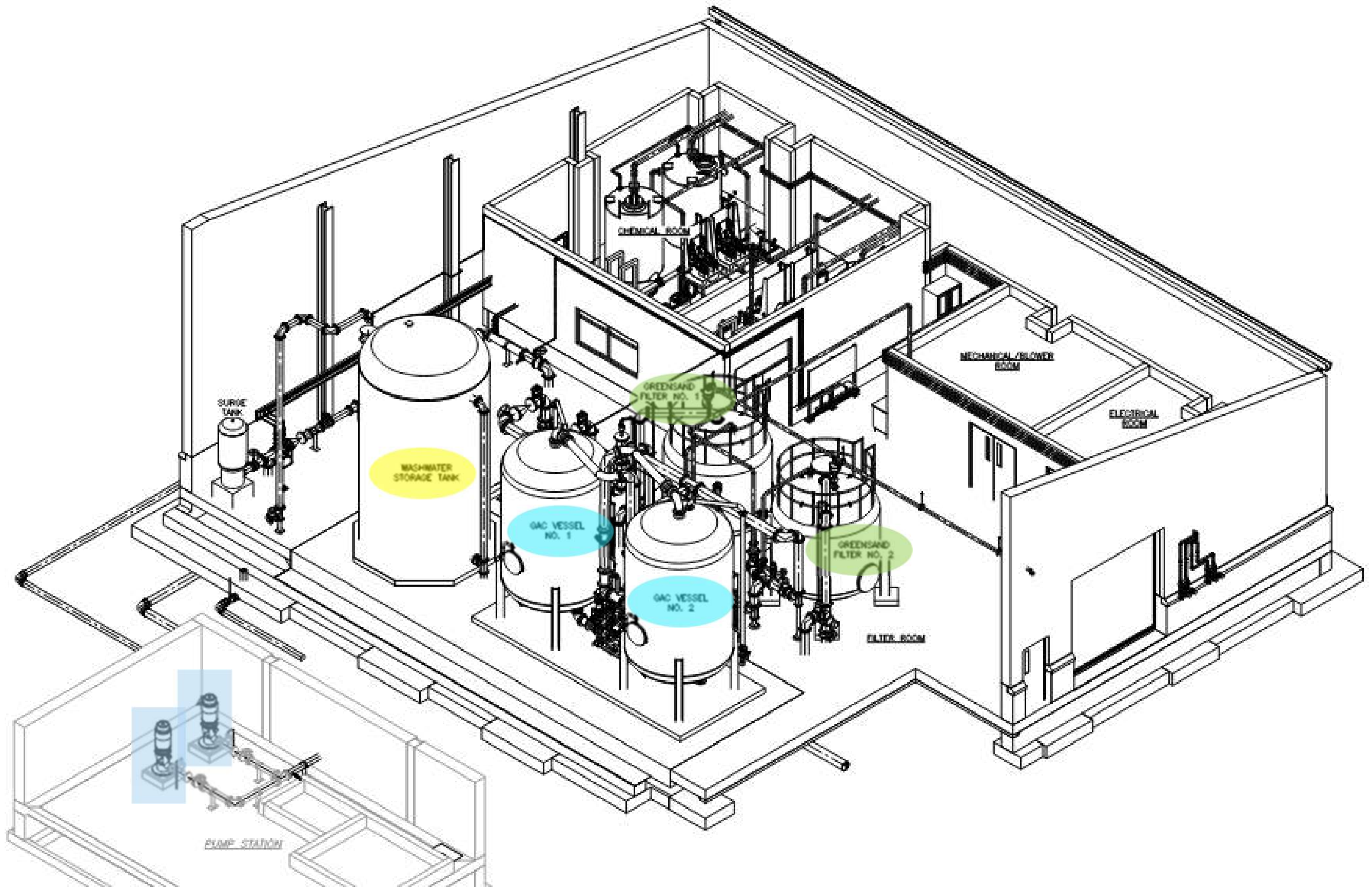




Glen Drive WTP 60% Design

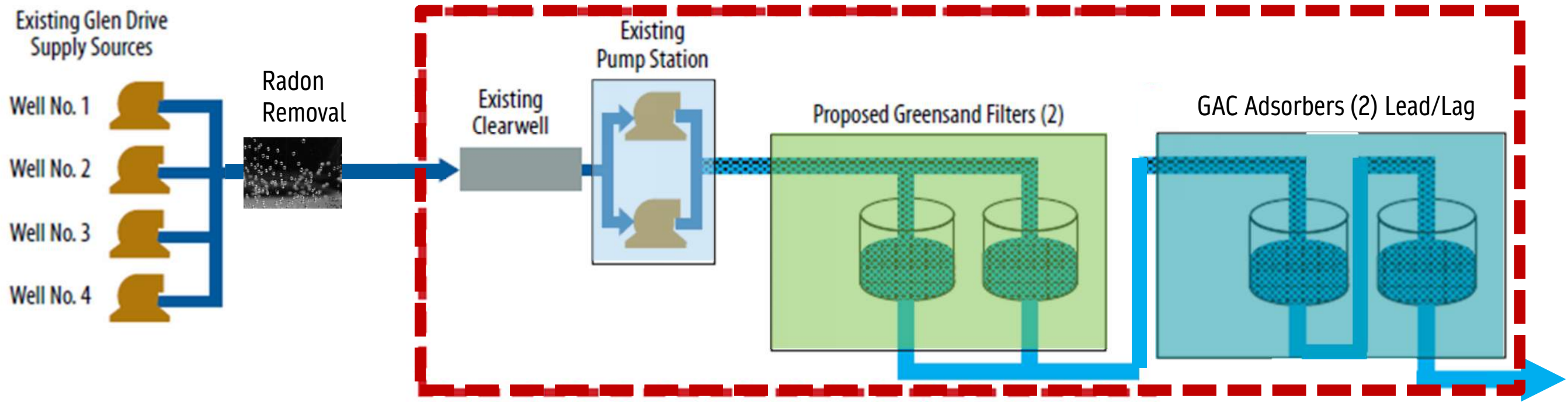
Glen Drive Site – Existing and Proposed



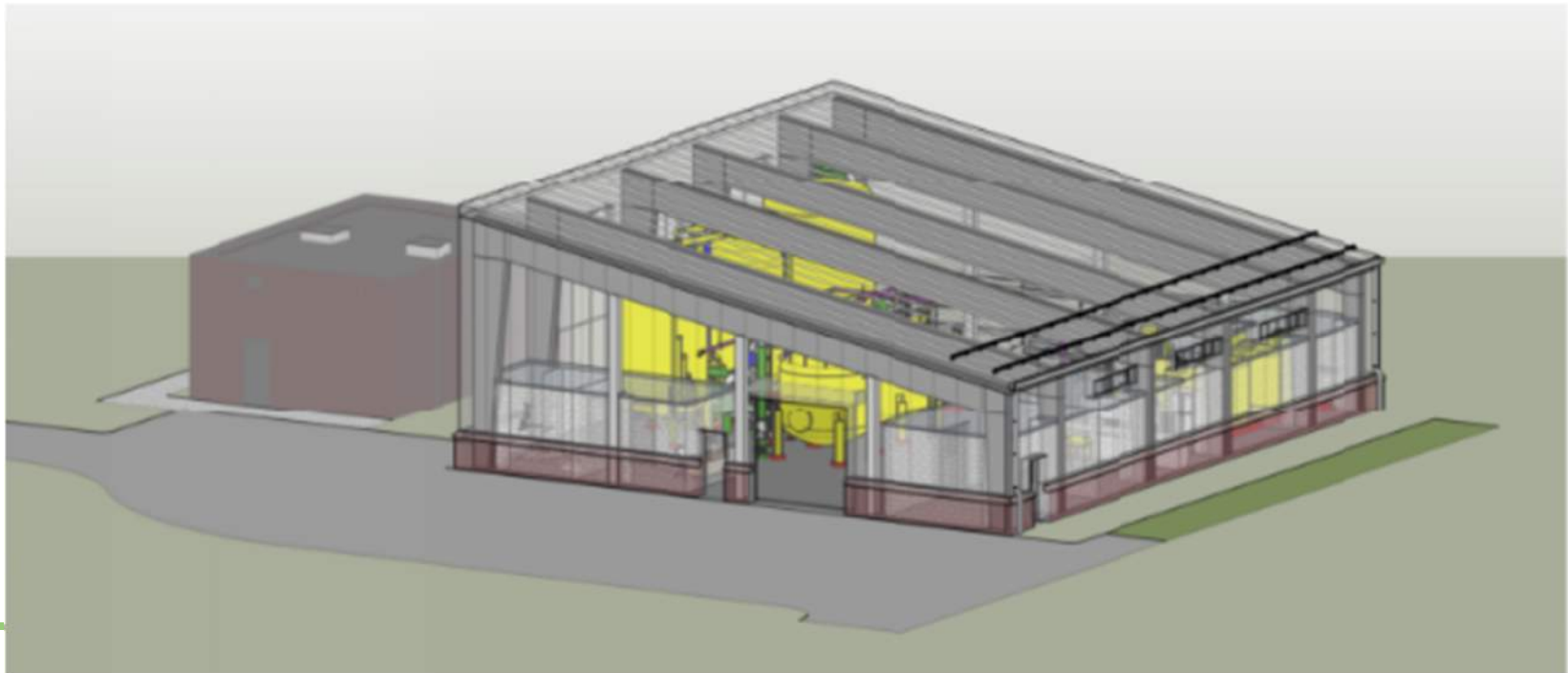


Glen Drive WTP Design (with PFAS)

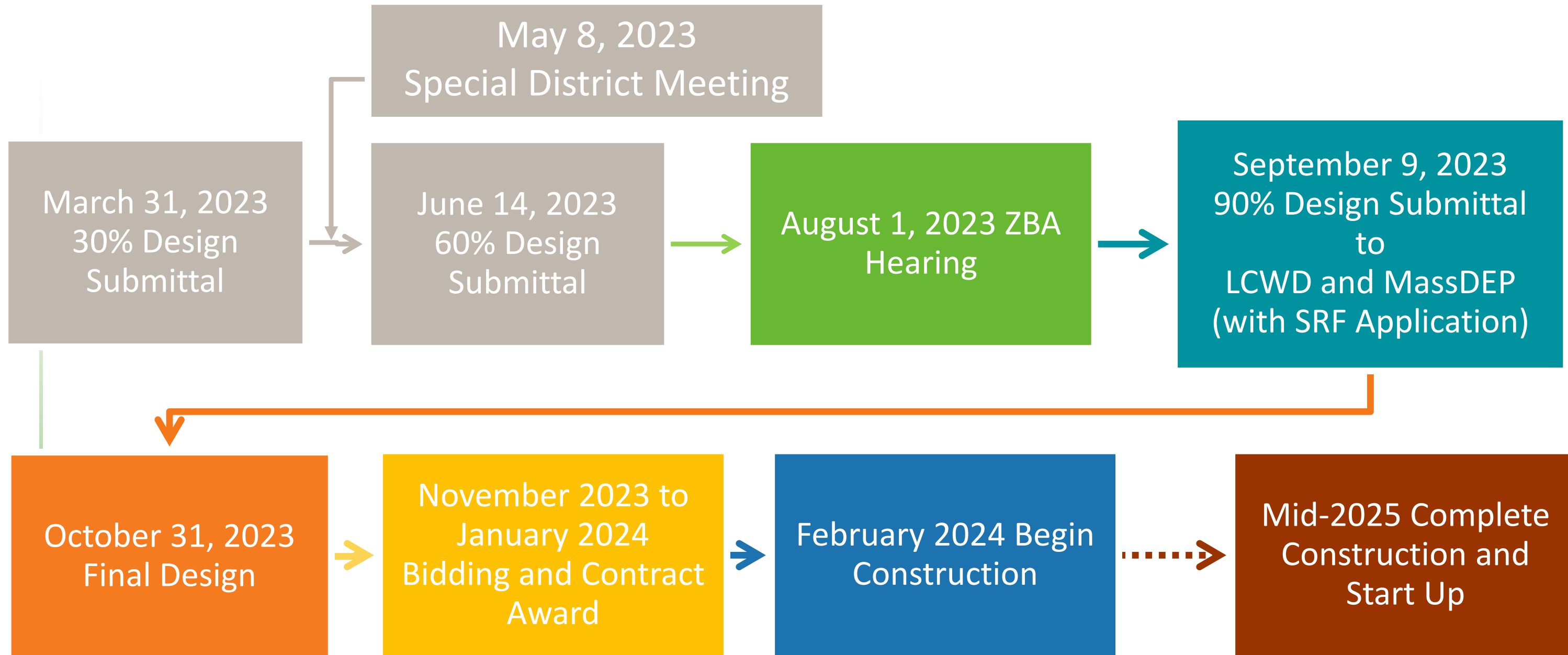
- Greensand filters to remove iron and manganese
- Granular activated carbon (GAC) to adsorb PFAS
- Radon removal to prevent build up on the GAC



Glen Drive WTP



Glen Drive WTP Schedule



Glen Drive WTP

- Estimated 18-month construction duration
- Stormwater control
- Outside of the wetland “buffer”
- Everything contained within buildings
- Minimal increase to day-to-day operations





Follow Up Actions