

# THE WWSD EXPERIENCE

- TIMELINE
- PFAS LEVELS
- CUSTOMER IMPACT
- PILOT
- NITRATE ISSUES
- CONSTRUCTION
- PROCESS
- CHALLENGES
- UNITED STATES AIR FORCE





EPA Lowers Health  
Advisory Level to  
70ppt  
(5/19/2016)

Board Approves  
Treatment Plant  
(6/21/2016)

Pilot Study Initiated  
(10/24/2016)

Full Scale Construction  
Contract  
(2/9/2017)

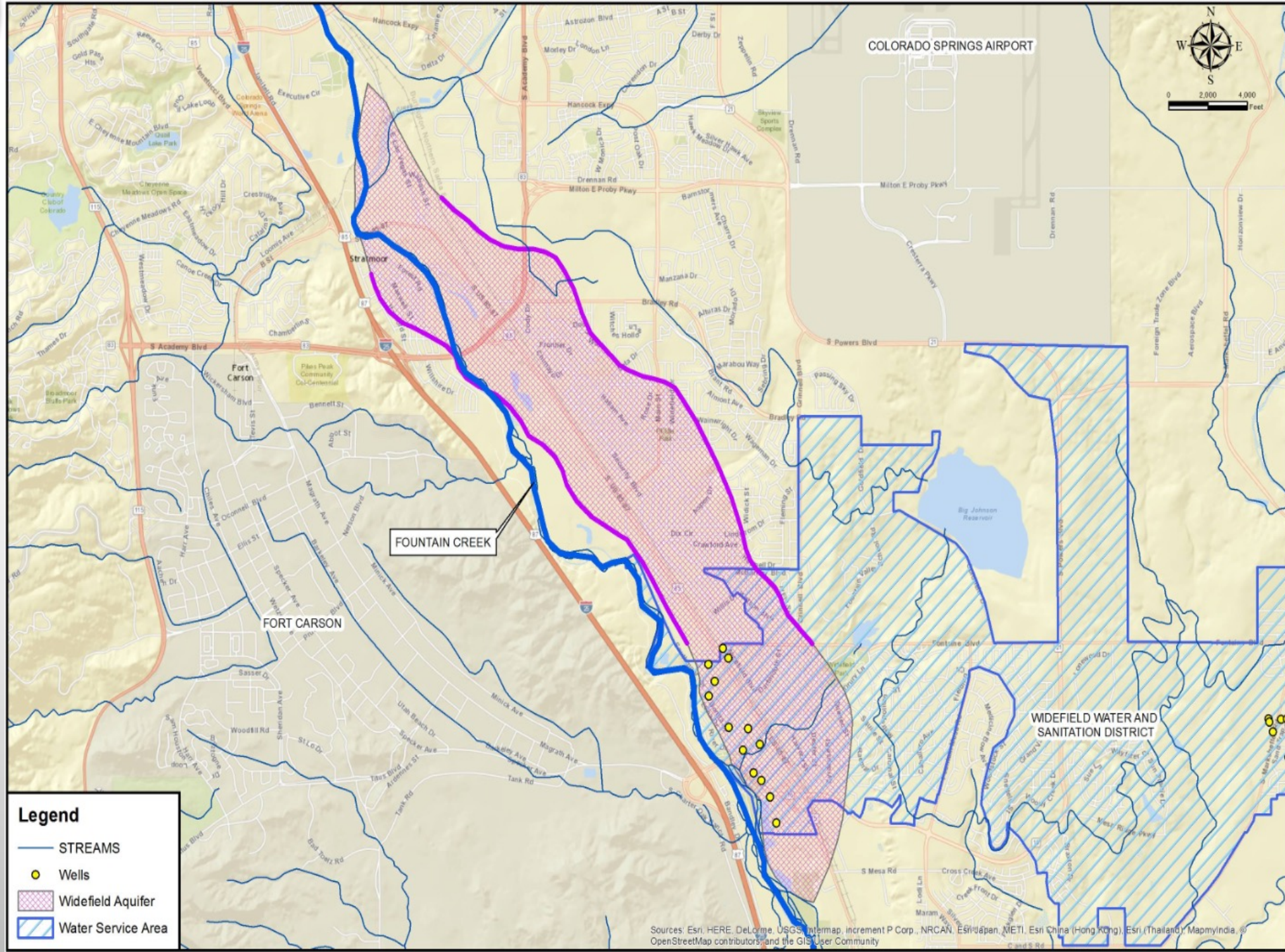
50% Plant Design  
1/15/2017

Media Vessels Under  
Contract  
(1/6/2017)

IX Media Ordered  
(4/17/2017)

Southmoor Water  
Treatment Plant Start  
Up  
(5/4/2017)

11 Months  
& 15 Days

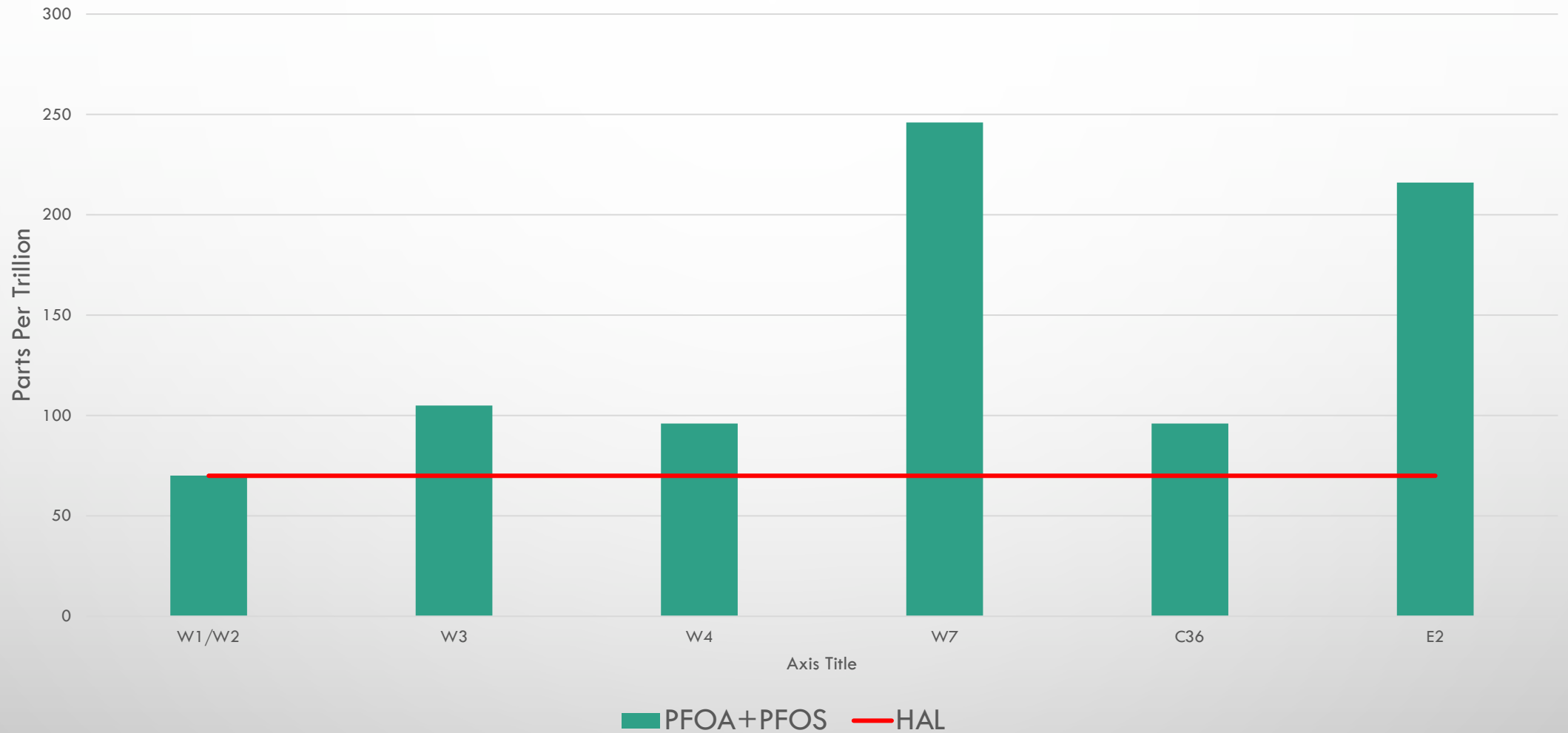


**Legend**

-  STREAMS
-  Wells
-  Widefield Aquifer
-  Water Service Area



# Widefield Water and Sanitation District PFOA + PFOS





## CUSTOMER IMPACT

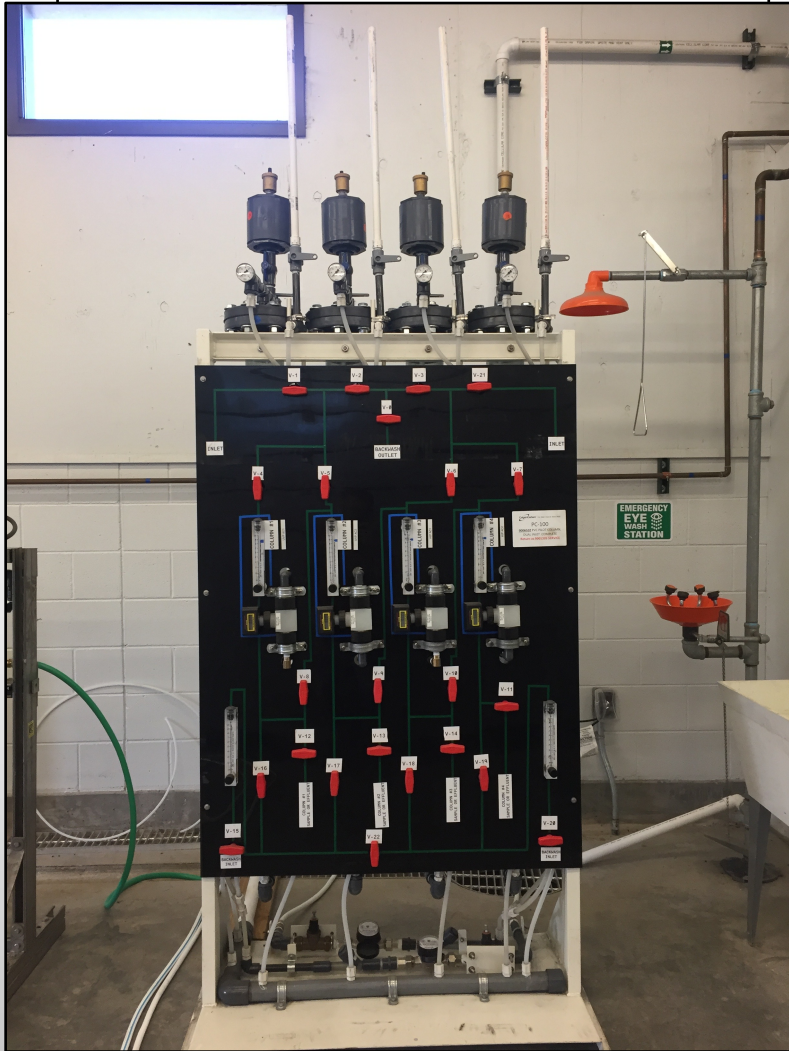


- 40 TO 400 CALLS PER DAY
- HIRED MEDIA RESPONSE TEAM
- COMMUNICATION SURVEY
- DEDICATED COMMUNICATION AND WEBSITE
- EVALUATED MANY DIFFERENT POSSIBILITIES – SUCH AS POINT OF USE TREATMENT
- SETUP WATER BOTTLE FILL STATION
- DID NOT RAISE RATES – AIR FORCE ESA
- SPENT \$2.5 MILLION



# PILOT STUDY

## PILOT SYSTEM #1



Filtrisorb 400

Purolite CalRes 120

## PILOT SYSTEM #2



DOW PSR2+

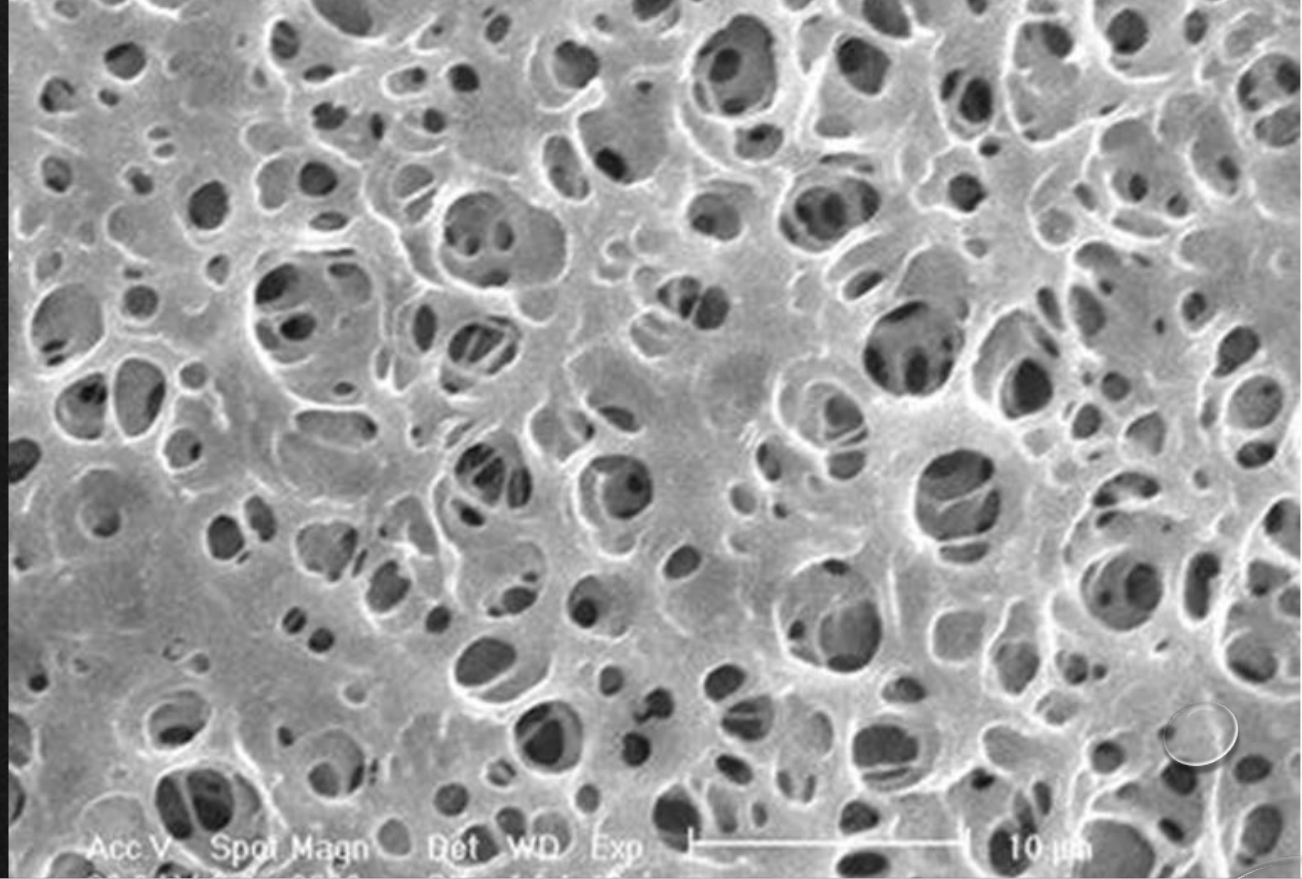
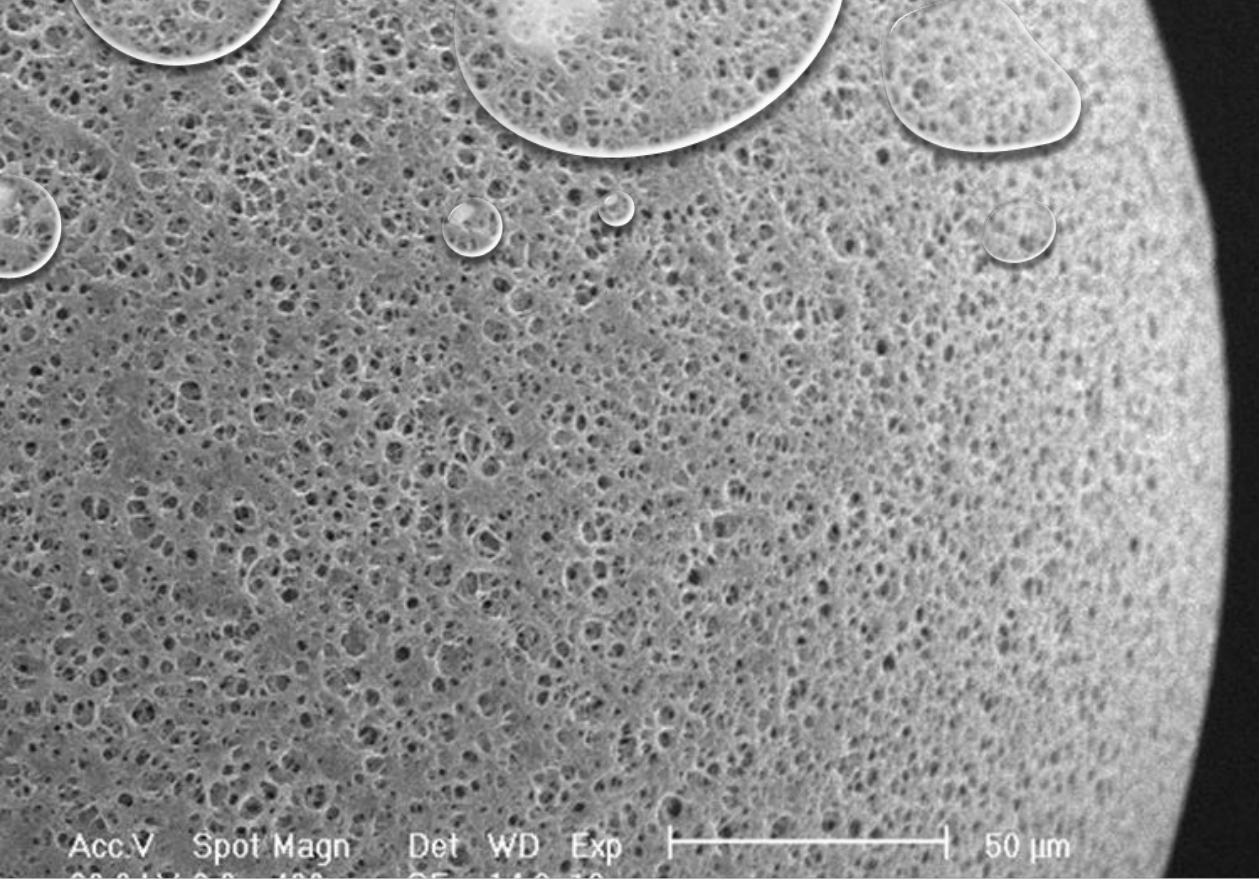
EVOQUA APR-1

## PILOT SYSTEM #3



DOW CALRES 2109





# MACROPOROUS RESIN



# CONSTRUCTION

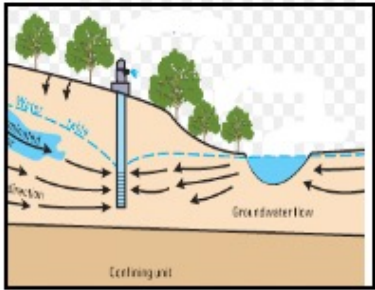
- 2017 - ADDED TO SOUTHMOOR FACILITY
- 2019 - RETRO-FIT SMALLER FONTAINE WATER TREATMENT PLANT WITH ION EXCHANGE
- 2021 - 3RD AND FINAL – DRINKING WATER MITIGATION FACILITY – BUILT BY AIR FORCE AND ARMY CORPS



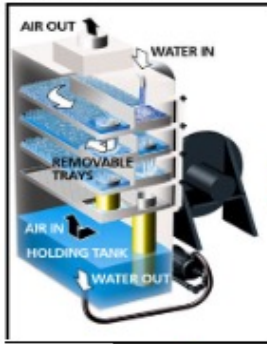


# THE PROCESS

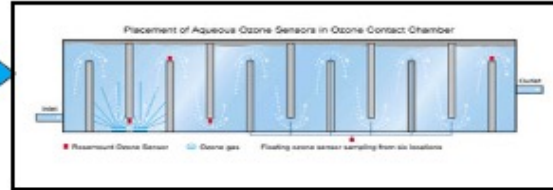
### Groundwater Wells



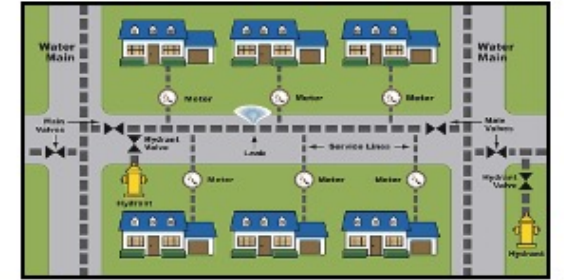
### Airstripping



### Chlorine Contact



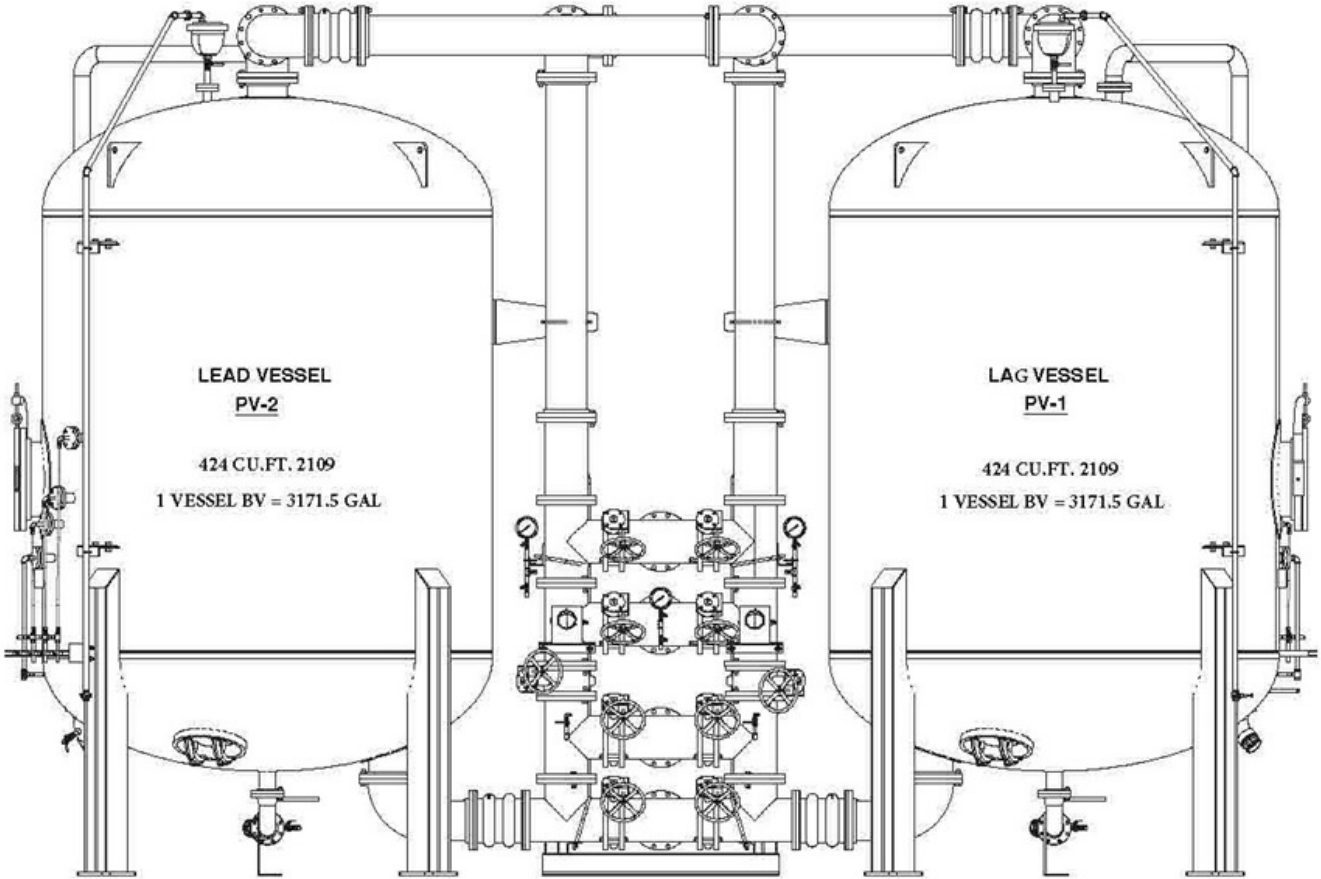
### Distribution System



### Distribution Pumps

# TREATMENT VESSEL

SYSTEM 1



ELEVATION



# CHALLENGES

- COLIFORM ISSUE
- FOULED RESIN
- OPERATIONAL GUIDANCE
- SAMPLING INTERVALS
- OPERATING COSTS







**Widefield**  
Water and Sanitation District

THANK YOU

