THE CITY OF PLEASANTON

# MEMORANDUM

**Date:** December 8, 2025

**To:** Mayor and City Council

**From:** Gerry Beaudin, City Manager
Siew-Chin Yeong, Director of Public Works
Todd Yamelo, Utility Planning Manager

**Subject:** **Joint Groundwater Wells Project - Phase 1 Feasibility Study Update**


## SUMMARY

This memorandum provides an update on the Phase I Feasibility Study for the Joint Groundwater Wells Project (Project), a collaborative effort between the City of Pleasanton (City) and Zone 7 Water Agency (Zone 7) to evaluate potential new groundwater wells in the Bernal Subbasin. The preliminary findings of the technical feasibility study confirm that the proposed well locations can produce groundwater that can increase Zone 7's groundwater production capacity and drought resiliency for the overall Tri-Valley region, recover the City's groundwater production quota (GPQ), and meet and exceed all State and federal water quality standards. Zone 7 and City staff are continuing efforts to finalize the recommended Project configuration, prepare a basis of design with Project cost estimates, and negotiate preliminary terms for Project design, construction, and operation. City staff will evaluate this Project versus independent implementation options and return to the City Council in Spring 2026 with recommendations.


## BACKGROUND

On October 17, 2023, the City Council authorized staff to proceed with the planning and development of new groundwater wells in the Bernal Subbasin to regain use of the City's Groundwater Production Quota (GPQ) of 3,500 acre-feet per year.

On June 18, 2024, the City Council approved an agreement between the City and Zone 7 to investigate the feasibility of constructing a joint project with Zone 7 with the goals of providing cost savings and reducing operational complexity. The Phase I scope includes well siting analysis, exploratory test drilling, technical feasibility evaluation, and the development of draft terms for Phase II design and construction and Phase III operation. The well siting analysis recommended three City parks as target well locations for further testing: Tennis and Community Park, Hansen Park, and Del Prado Park. Field work for test well construction and subsequent water quality and yield testing occurred between December 2024 and June 2025. Field efforts took approximately six months longer than anticipated due to delays in Zone 7 contractor procurement and drilling activities.

## DISCUSSION

Zone 7 presented an interim update on the Regional Groundwater Facilities Project Phase I to its Board on June 18, 2025. A copy of the presentation was sent to City Council on June 13, 2025 via bi-weekly Q&A updates and follow-up with an email from the City Manager on June 19, 2025. (Attachment 1)

Analysis of field testing and groundwater modeling was completed in September 2025, with Zone 7 finding that implementation of new wells would not have an impact on groundwater basin sustainability, including PFAS concentrations over a 20-year time period predicted to remain below regulatory levels in the area of the wells.

On October 20, 2025, Zone 7 presented preliminary findings and recommendations from the technical feasibility study at the Tri-Valley Water Liaison Committee Meeting. Note that these preliminary findings and recommendations were presented prior to City staff receiving the draft feasibility report and that report is still under development and review with the report expected to be finalized in December 2025. Zone 7 did note during the meeting that the presentation reflected Zone 7's perspective on the Project and did not represent that of the City. (Attachment 2)

### Preliminary Findings from the Phase I Feasibility Study Draft Report:

- Water from all three test wells are anticipated to meet State and Federal water quality standards without the immediate need for treatment beyond chloramination.
- Zone 7's production target of 7,000 acre-feet per year, which includes the City's GPQ of 3,500 acre-feet per year, can be achieved through combinations of well sites.
- Groundwater modeling results indicate that groundwater production from the proposed wells will not impact the sustainability of the groundwater basin or influence PFAS migration in the basin over a 20-year time period.
- Four different project configurations were evaluated, all of which would pump groundwater to Zone 7's Hopyard Facility for chloramination and be delivered to the City via Zone 7's transport system and turnouts. The four project configurations include wells as follows:

    1. One well at Tennis and Community Park
    2. One well at Tennis and Community Park and one well at Hansen Park (total of 2)
    3. One well at Tennis and Community Park and one well at Del Prado Park (total of 2)
    4. One well each at Tennis and Community Park, Hansen Park, and Del Prado Park (total of 3)

- A comparative analysis was performed of each configuration that considered criteria including community and environmental impacts, capital cost, water quality/treatment impacts, implementation schedule, operation flexibility and resilience, and operation and maintenance cost. Preliminary analysis has identified one well at Tennis Park and one well at Hansen Park as the recommended project.

## NEXT STEPS

Next steps include finalizing the feasibility study report including confirmation of recommended project configuration and preparing a basis of design report for the recommended project configuration that includes cost estimates. The final report is anticipated to be completed in December 2025. In parallel to the report, the City and Zone 7 are in the process of developing draft terms for implementation of the design, construction and operation of the Project if both agencies elect to proceed.

Starting in January 2026, City staff will also conduct an independent analysis for utilizing its GPQ that includes the following options:

a. Continuation of the partnership with Zone 7 for joint groundwater wells
b. Construct two new wells in the Bernal subbasin, independently as a City project.

Staff anticipate completing this analysis by Spring 2026 and are aiming to return to the City Council in April 2026 with findings and recommendations. Upon receiving City Council direction, staff will pursue external funding opportunities, including State Revolving Fund loans and State Water Resources Control Board (SWRCB) grant programs, to support the selected alternative.

## FINANCIAL CONSIDERATIONS

The total budget for Phase I is $1.5 million. This includes the cost-share with Zone 7 of $1,283,231, and additional City's cost of $261,769. On December 12, 2024, the City received a $1,000,000 grant from the State Water Resources Control Board (SWRCB) applicable to the Phase I Feasibility Study. The City's budget contributed from the Water Enterprise Fund (Fund 421) is $283,231. To date, the City has received $753,779 in reimbursements from the State grant and has submitted nearly the remaining balance for final reimbursement.

Staff also initiated discussions with the SWRCB regarding potential funding for design and construction phases. Preliminary feedback from SWRCB staff was positive, and the City is encouraged to apply for grants that could fund up to 50 percent of the total project cost, with a maximum of $20 million, for Phases II and III.

Attachments:

Attachment 1 - June 18, 2025, Presentation to Zone 7 Board
Attachment 2 - October 20, 2025, Subcommittee Meeting Minutes and Presentation to Zone 7 Subcommittee

# Update on
# The Regional Groundwater Facilities Project - Phase I

Zone 7 Board Meeting

June 18, 2025

ZONE 7 WATER AGENCY

# Supporting Strategic Goals and Initiatives

## Strategic Goals


## Initiatives

| | |
|---|---|
| # 5 | Develop a diversified water supply plan and implement supported projects and programs |
| # 9 | Implement the PFAs Management Strategy |
| # 11 | Manage the Groundwater Sustainability Agency and implement the Groundwater Sustainability Plan |

# Topics of Discussion

- Project Objectives
- Scope of Work
- Project Workflow
- Exploratory Drilling
- Yield Testing and Water Quality Analyses
- Upcoming Tasks
- Q&A

ZONE WATER AGENCY

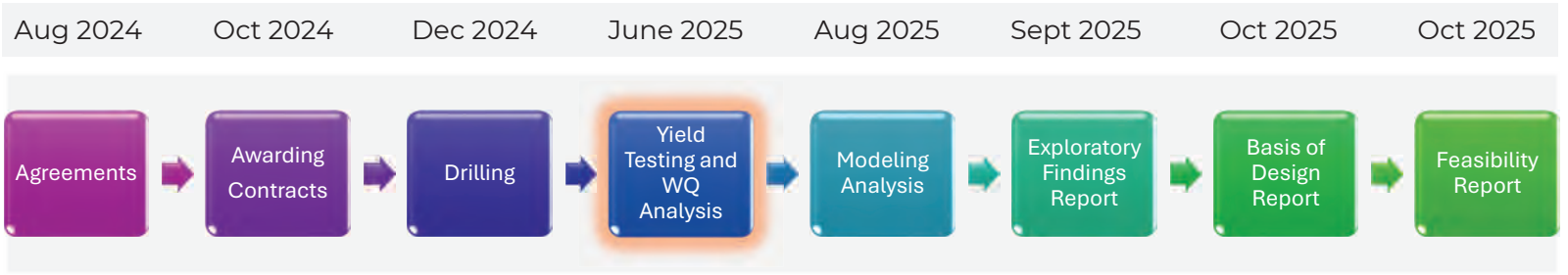
# Project Objectives

| Zone 7 | The City of Pleasanton |
|---|---|
| • To implement PFAS management strategy | • To recover 3,500 acre-feet of Groundwater Production Quota |
| • To enhance water supply reliability | • To improve water supply reliability |
| • To become more resilient to multiyear droughts | • To reduce wholesale water purchase costs |
| • To gain operational flexibility and redundancy | • To reduce operational complexity |
| • To achieve cost savings through economies of scale | • To achieve cost savings through economies of scale |
| • To minimize impact on the local community and environment | • To meet future drinking water regulations |

## Scope of Work

- Drill exploratory bore holes and construct three test wells at:
  1. Del Prado Park
  2. Pleasanton Tennis & Community Park
  3. Hansen Park
- Conduct Yield and Water Quality Testing at all sites
- Run Model Scenarios to analyze sustainability and PFAS mobilization
- Basis of Design
- Feasibility Study

# Project Workflow

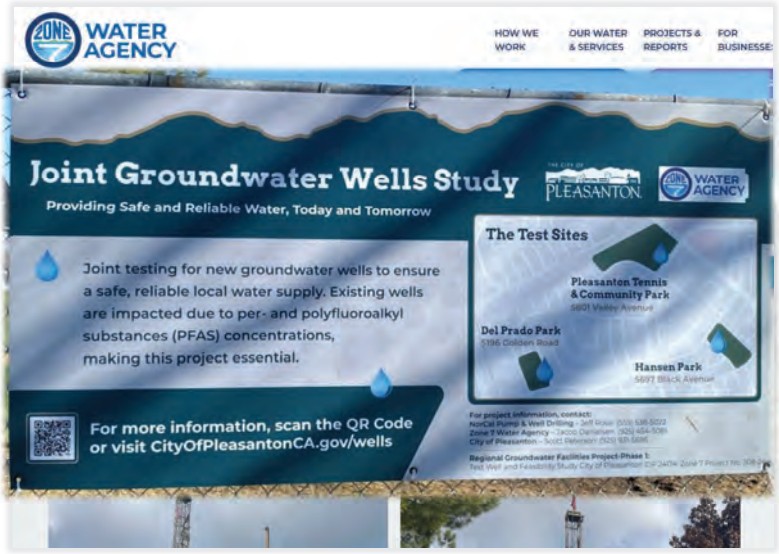


# Exploratory Drilling


Legend
Wells
Approximate Test Well Location
Pleasanton - Inative
SFPUC - Active
Zone 7 - Active
Zone 7 Distribution Lines
Distribution Main
Proposed Distribution Expansion
Basin Regions
Main Basin
Fringe Area
Upland Area
SubBasins
Dublin Sub-basin
Castle Sub-basin
Bernal Sub-basin
Amador Sub-basin
H6
H9
P7
P9
Tennis Park (Site 2)
Hansen (Site 3)
Del Prado (Site 1)
SF-A
SF-B
N
W
E
S
0
0.25
0.5
Miles
ZONE 7 WATER AGENCY

# Community Outreach

- City of Pleasanton leading the outreach effort – Zone 7 supporting
- Public meetings
- Stakeholder Workshops
  - Public Outreach Event at Tennis Park
  - City Water Open House (3/1/25)
- Website Collaboration
- Information Poster at Drilling Site



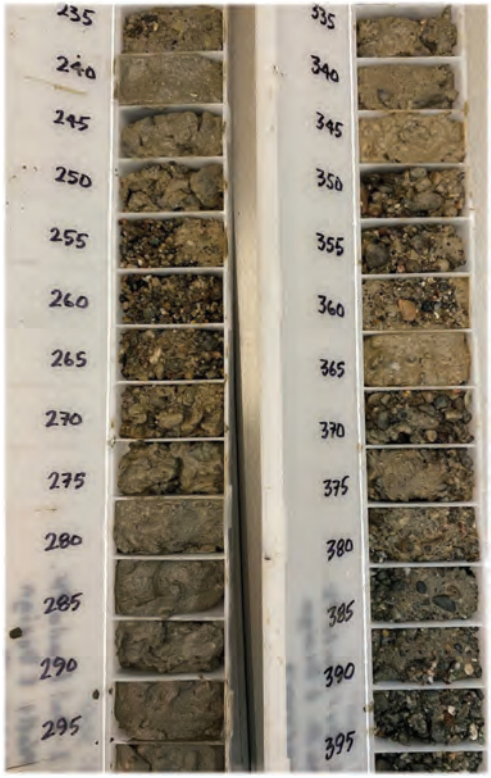

Legend
Approximate Test Well Location
Approximate Construction Footprint
Del Prado Park (Site 1)
Dublin Sub-basin
Amador Sub-basin
H6
Tennis Park (Site 2)
Hansen (Site 3)
Del Prado (Site 1)
Bernal Sub-basin
Castle Sub-basin
N
W
E
S
0
250
500
Feet
ZONE 7 WATER AGENCY

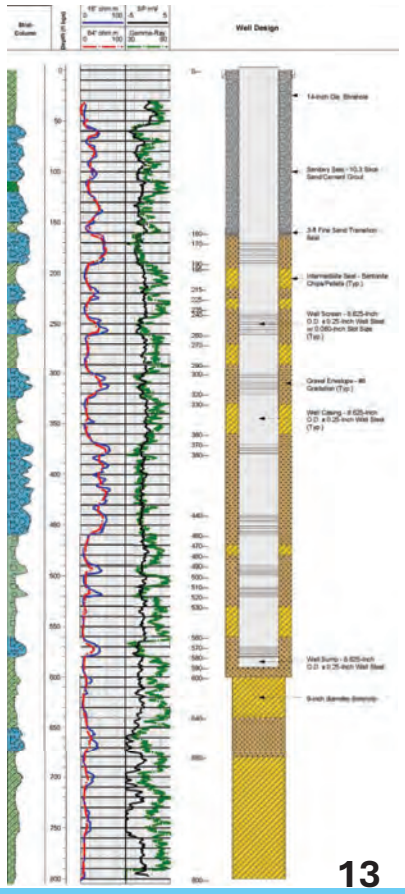
# Mobilization

# Exploratory Drilling


ZONE 7 WATER AGENCY

# Well Design




ZONE 7 WATER AGENCY

# Borehole Preparation

# Well Construction

# Well Development

# Well Completion & Site Restoration

# Yield Testing and Water Quality Analyses

June 18, 2025

Luhdorff & Scalmanini
Consulting Engineers

# Site Investigation Update

- Purpose of Site Investigations
  - Characterize Site Specific Lithology
  - Characterize Zonal and Composite Water Quality
  - Estimate Yield of Future Production Wells
  - Collect Information Necessary to Design Production Wells
- Site Investigation Methods
  - Test Hole Drilling and Geophysical Surveys
  - Collection and Analysis of Zone-Specific and Composite Water Quality Samples
  - Pump Testing
  - Dynamic and Static Spinner Surveys

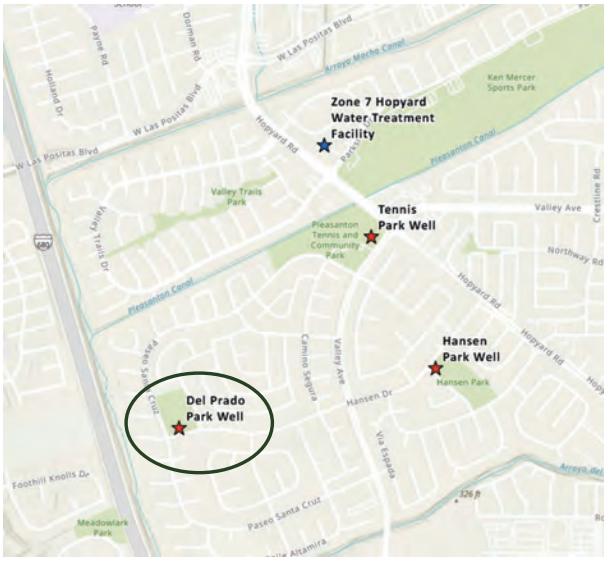
# Del Prado Test Well

- Test Hole Drilling Depth: 800-feet
- Potential production zones selected based on review of drill cutting and geophysical surveys
- 8-inch Diameter Casing
- Screened Intervals:

Lower Aquifer

| | |
|---|---|
| 170-190’ | Quaternary Alluvium |
| 240-260’ | Quaternary Alluvium |
| 300-320’ | Quaternary Alluvium |
| 370-380’ | Upper Livermore Formation |
| 440-460’ | Upper Livermore Formation |
| 490-500’ | Lower Livermore Formation |
| 510-520’ | Lower Livermore Formation |
| 570-580’ | Lower Livermore Formation |

- Seal Depth: 156-feet



# Del Prado Test Well Zonal Water Quality

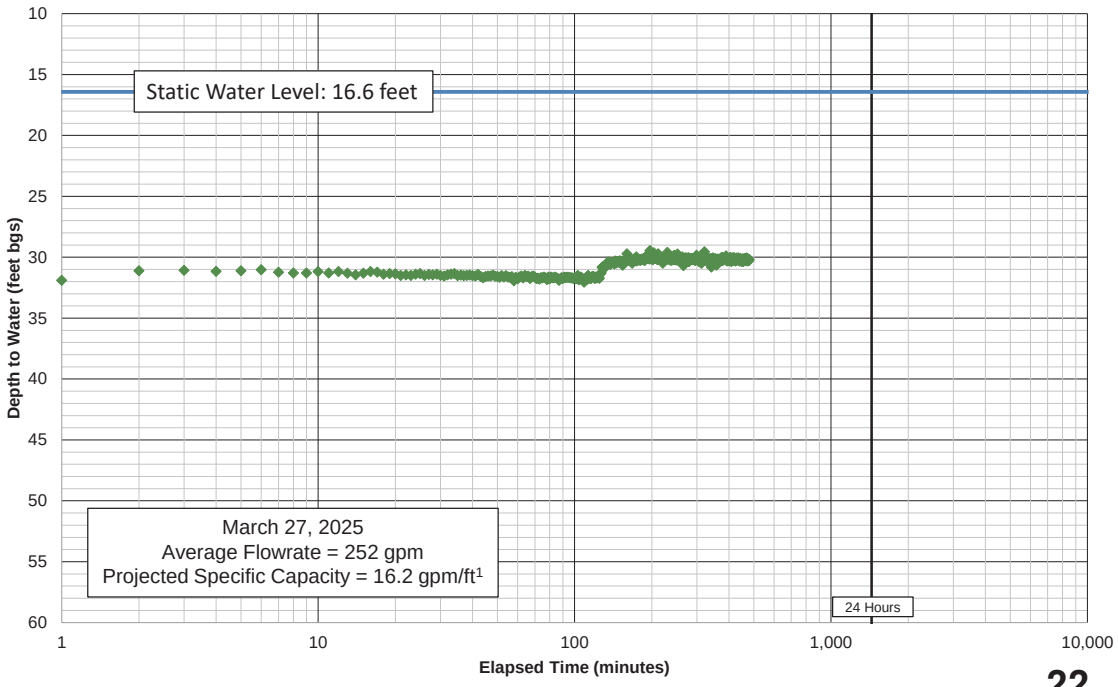
- Water samples were collected from screened intervals to characterize zonal water quality.
- Identification of zones with poor water quality will aid in production well design (i.e., isolation of poor-quality zones)
- Water produced from the well meets all Title 22 Drinking Water Quality Standards with exception of Mn at 0.06 mg/l.

| Analyte | Specific Conductance | Arsenic | Hexavalent Chromium | Manganese | PFOS/PFOA |
|---|---|---|---|---|---|
| Units | µmhos/cm | mg/L | ug/L | mg/L | ng/L |
| MCL | 900/1,600[1] | 0.010 | 10 | 0.050 | 4 |
| 170-190' | <Upper limit | <MCL | <MCL | 0.06 | ND |
| 240-260' | <Upper limit | <MCL | <MCL | <MCL | ND |
| 300-320' | <Upper limit | <MCL | <MCL | <MCL | ND |
| 370-380' | <Upper limit | <MCL | <MCL | 0.08 | ND |
| 440-460' | <Upper limit | <MCL | <MCL | 0.07 | ND |
| 490-500' | <Upper limit | <MCL | <MCL | 0.10 | ND |
| 510-520' | <Upper limit | <MCL | <MCL | <MCL | ND |
| 570-580’ | <Upper limit | <MCL | <MCL | 0.11 | ND |
| **Composite** | **965** | **0.003** | **3.25** | **0.06** | **ND** |

[1] Recommended/Upper Limit
ND – Not detected

# Del Prado Test Well – Pump Testing

- Pump test results, along with knowledge of local groundwater conditions used to estimate production of a future production well.
- Estimated yield of future production well is between 1,300 and 1,900 gallons per minute (1.87 - 2.73 million gallons per day)
- Variation in estimated yield is due to seasonal water level fluctuations and well/pump efficiency ranges




[1] Gallons pumped for every foot of drawdown.

# Del Prado Test Well – Flow Profile

Flow profiling characterizes:

- Amount of flow contributed from each screen zone
- What percentage of the total flow from the well is being produced from a zone
- Flow contribution diminishes with depth

| Screen Interval | Production (gpm) | % of Flow |
|---|---|---|
| 170-190' | 99 | 36.5% |
| 240-260' | 71 | 26.1% |
| 300-320' | 45 | 16.7% |
| 370-380' | 14 | 5.2% |
| 440-460' | 26 | 9.6% |
| 490-500' | 9 | 3.2% |
| 510-520' | 5 | 1.9% |
| 570-580' | 2 | 0.4% |

# Tennis Park Test Well

- Test Hole Drilling Depth: 820-feet
- 8-inch Diameter Casing
- Screened Intervals:

Lower Aquifer

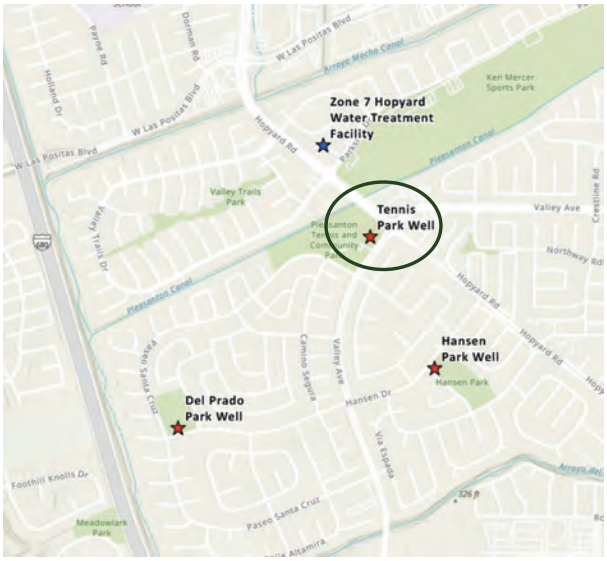
- 195-215’
- 220-240’
- 300-320’
- 380-420’
- 470-520’
- 560-600’
- 700-730’
- 740-760’

Quaternary Alluvium

Upper Livermore Formation

Lower Livermore Formation

- Seal Depth: 185-feet



# Tennis Park Test Well Zonal Water Quality

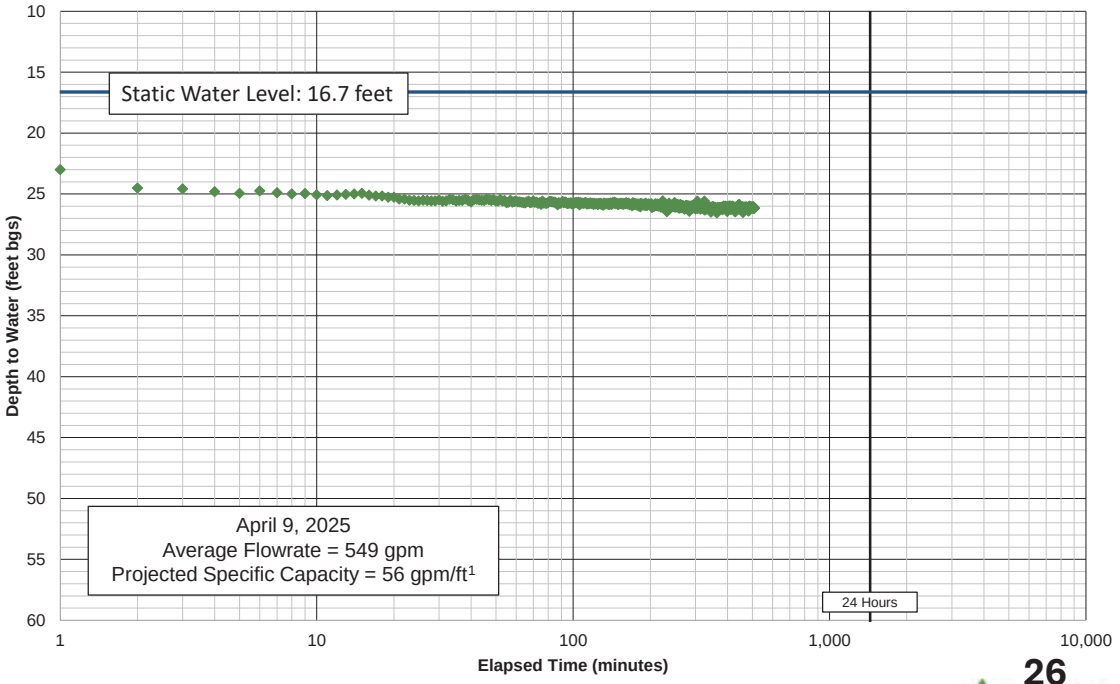
- Water samples were collected from screened intervals to characterize zonal water quality.
- Identification of zones with poor water quality will aid in production well design (i.e., isolation of poor-quality zones).
- Water produced from the well meets all Title 22 Drinking Water Quality Standards.

| Analyte | Specific Conductance | Arsenic | Hexavalent Chromium | Manganese | PFOS/PFOA |
|---|---|---|---|---|---|
| Units | µmhos/cm | mg/L | ug/L | mg/L | ng/L |
| MCL | 900/1,600[1] | 0.010 | 10 | 0.050 | 4 |
| 195-215' | <Upper limit | <MCL | <MCL | <MCL | ND |
| 220-240' | <Upper limit | <MCL | <MCL | <MCL | ND |
| 300-320' | <Upper limit | <MCL | <MCL | <MCL | ND |
| 380-420' | <Upper limit | <MCL | <MCL | 0.057 | ND |
| 470-520' | <Upper limit | <MCL | <MCL | 0.065 | ND |
| 560-600' | <Upper limit | <MCL | <MCL | 0.17 | ND |
| 700-730' | <Upper limit | <MCL | <MCL | 0.082 | ND |
| 740-760' | <Upper limit | <MCL | <MCL | 0.094 | ND |
| **Composite** | **864** | **0.0011** | **4.8** | **0.032** | **ND** |

[1] Recommended/Upper Limit
ND – Not detected

# Tennis Park Test Well – Pump Testing

- Estimated yield is between 3,400 and 5,100 gallons per minute (4.89 – 7.33 million gallons per day)
- Variation in calculated and estimated yield is due to seasonal water level fluctuations and well/pump efficiency




[1] Gallons pumped for every foot of drawdown.

# Tennis Park Test Well – Flow Profile

Flow profiling characterizes:

- Amount of flow contributed from each screen zone
- What percentage of the total flow from the well is being produced from each zone
- Diminished zonal yield with depth

| Screen Interval | Production (gpm) | % of Flow |
|---|---|---|
| 195-240' | 164 | 27.6% |
| 300-320' | 161 | 27.2% |
| 380-420' | 97 | 16.4% |
| 470-520' | 106 | 17.9% |
| 560-600' | 19 | 3.2% |
| 700-730' | 31 | 5.2% |
| 740-760' | 15 | 2.6% |

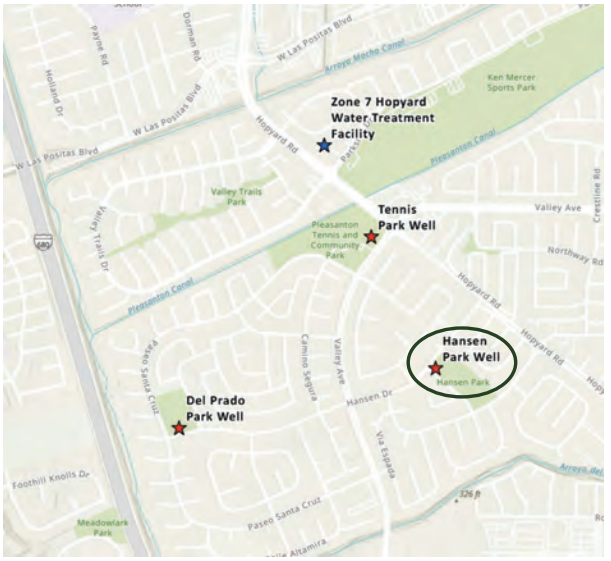
# Hansen Park Test Well

- Test Hole Drilling Depth: 800-feet
- 100-foot Conductor installed due to unstable shallow formation
- 8-inch Diameter Casing
- Screened Intervals:

Lower Aquifer

| | |
|---|---|
| 298-318’ | Quaternary Alluvium |
| 458-578’ | |
| 608-628’ | Upper Livermore Formation |
| 656-676’ | |
| 736-756’ | Lower Livermore Formation |

- Seal Depth: 265-feet



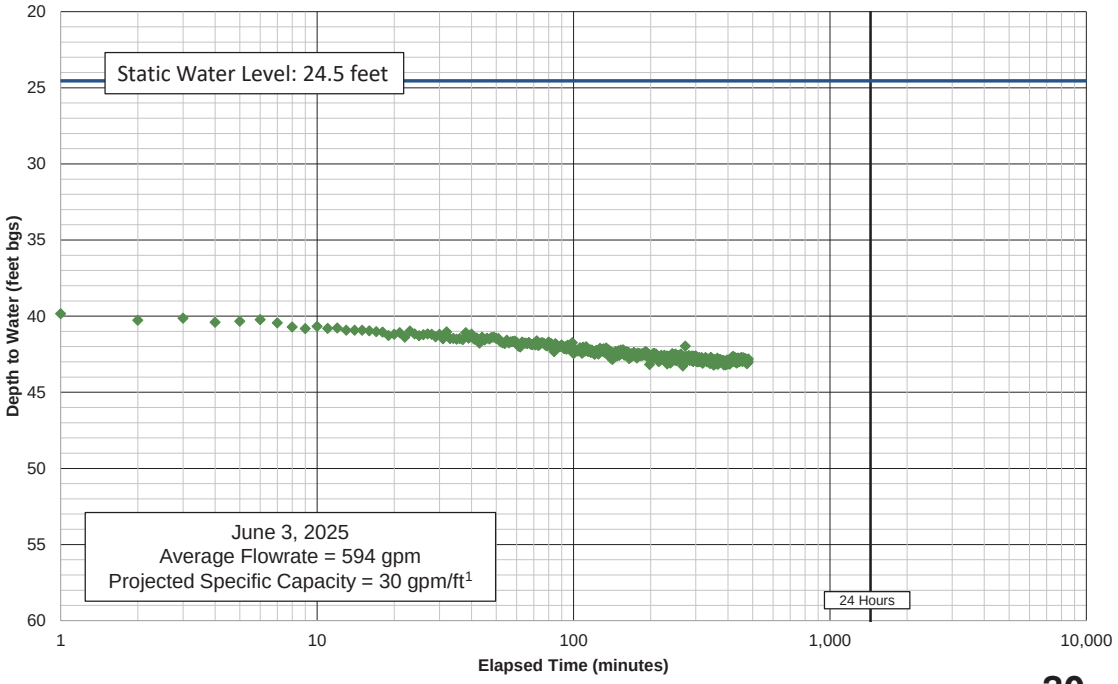
# Hansen Park Test Well Quality

| Analyte | Specific Conductance | Arsenic | Hexavalent Chromium | Manganese | PFOS/PFOA | PFHxS |
|---|---|---|---|---|---|---|
| Units | µmhos/cm | mg/L | ug/L | mg/L | ng/L | ng/L |
| MCL | 900/1,600[1] | 0.010 | 10 | 0.050 | 4 | 10 |
| 298 - 318 | <Upper limit | <MCL | <MCL | 0.063 | ND | ND |
| 458 - 518 | <Upper limit | <MCL | <MCL | <MCL | ND | 2.7 |
| 518 - 578 | <Upper limit | <MCL | <MCL | 0.091 | ND | ND |
| 608 - 628 | <Upper limit | <MCL | <MCL | 0.15 | ND | ND |
| 656 - 676 | <Upper limit | <MCL | <MCL | 0.2 | ND | ND |
| 736 - 756 | <Upper limit | <MCL | <MCL | 0.24 | ND | 2.5 |
| **Composite** | **906** | **0.00092** | **4** | **0.035** | **ND** | **2.5** |

[1] Recommended/Upper Limit
ND – Not detected

# Hansen Park Test Well – Pump Testing

- Estimated yield is between 3,400 and 4,200 gallons per minute (4.89 – 6.04 million gallons per day)
- Variation in estimated yield is due to seasonal water level fluctuations and well/pump efficiency




[1] Gallons pumped for every foot of drawdown.

# Project Status – Next Steps

- Site Investigations, Well Construction, and Testing
  - Temperature profiling to be conducted in each well
- Modeling
  - Zone 7 will utilize its groundwater model to evaluate sustainability of groundwater basin with various configurations of new wells/pumping capacities (including PFAS concentrations impacts)
- Exploratory Test Drilling Findings Report
- Basis of Design Report (BODR)
  - Team will prepare a BODR based on site investigation and testing findings that details out facility configurations, capacities, and costs
- Feasibility Study Report

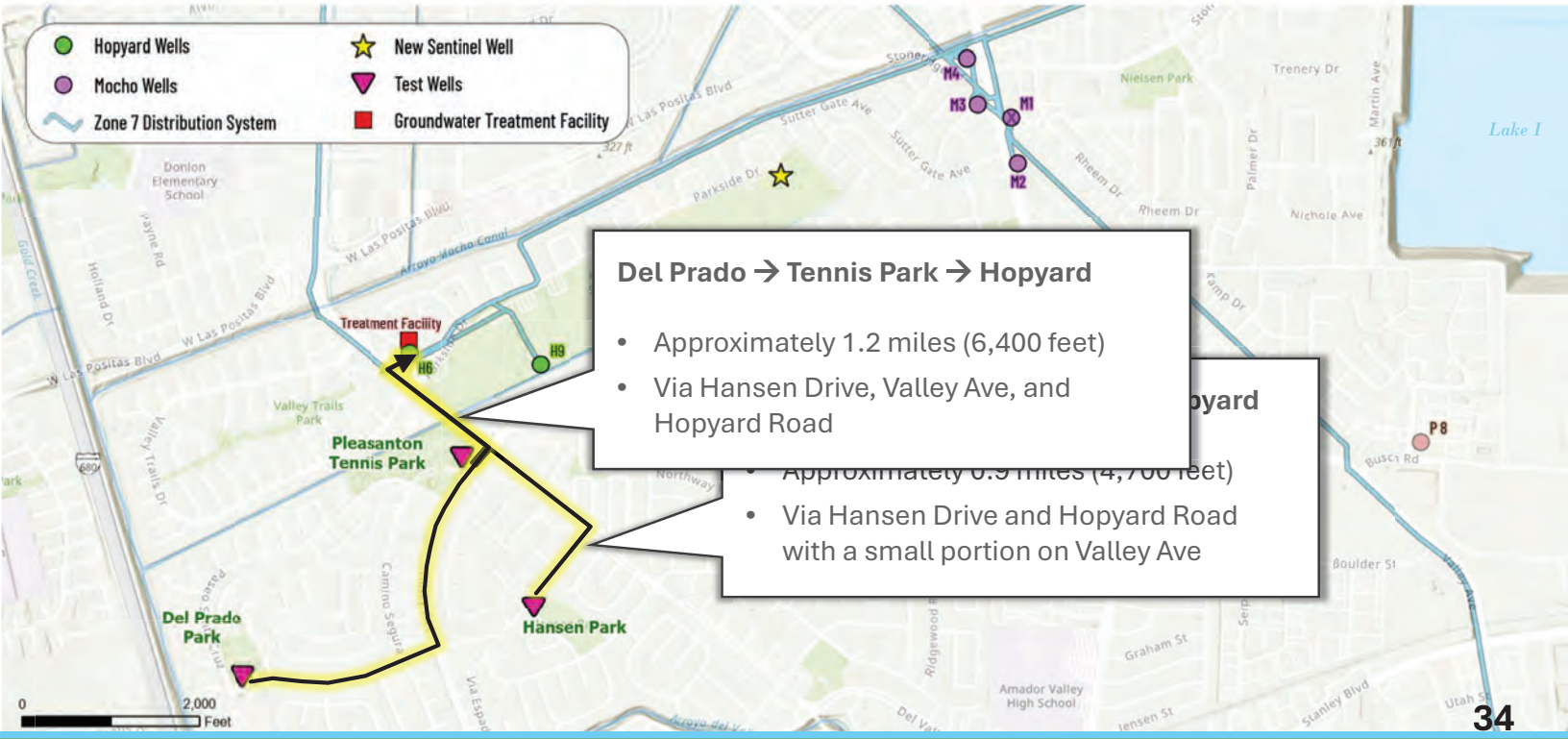
# Summary of Findings and Next Steps

# Summary of Findings

| Well | Potential Pumping Rate (million gallons/day) | Potential Pumping Rate (Acre-feet/year) | Potential Average Pumping Rate** (Acre-feet/year) | PFOS/PFOA |
|---|---|---|---|---|
| **Del Prado** | 1.87 - 2.73 | 2,100 – 3,100 | **2,600** | ND |
| **Tennis Park** | 4.84 - 7.33 | 5,400 – 8,200 | **6,800** | ND |
| **Hansen** | 4.89 - 6.04 | 5,500- 6,800 | **6,150** | ND* |

*PFHxS: Composite: 2.5 ppt; MCL (now rescinded) = 10 ppt (parts per trillion); Response Level = 20 ppt
** This rate would be the designed pumping rate; the actual rate and groundwater production will be less than the designed rate due to maintenance and outages

# Potential Pipeline Routes



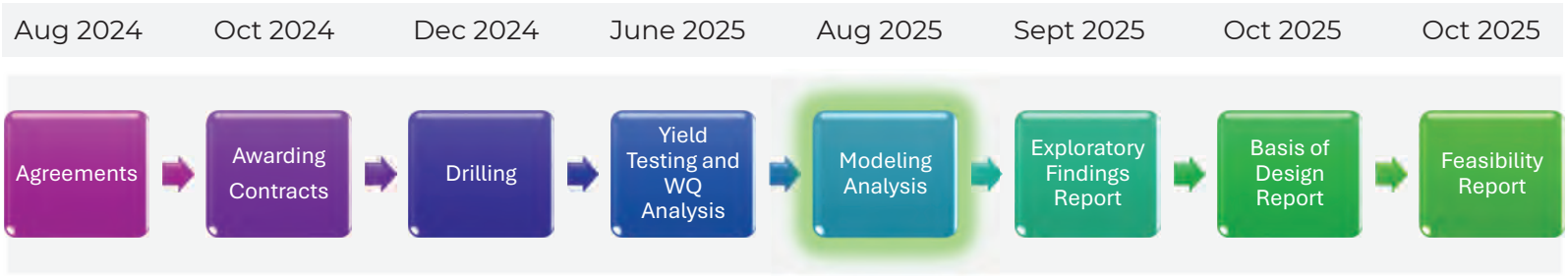

**Del Prado → Tennis Park → Hopyard**

- Approximately 1.2 miles (6,400 feet)
- Via Hansen Drive, Valley Ave, and Hopyard Road

**[illegible]yard**

- Approximately 0.9 miles (4,700 feet)
- Via Hansen Drive and Hopyard Road with a small portion on Valley Ave

# Next Steps




1. **Analyze** the feasibility of developing wells in terms of groundwater sustainability and PFAS mobilization
2. **Determine** the optimum selection of wells to achieve the project objectives for the City of Pleasanton and Zone 7
3. **Assess** infrastructure needs, schedule and total costs
4. **Formulate** each party's proportional cost share based on potential yields
5. **Evaluate** cost savings from economies of scale (by each party)
6. **Provide** necessary information and recommendations to the Zone 7 Board and the City Council to decide whether to jointly develop a regional project


Questions?

# Update on
# The Regional Groundwater Facilities Project - Phase I

TRI-VALLEY WATER LIAISON COMMITTEE MEETING

October 20, 2025

ZONE 7 WATER AGENCY

# Topics of Discussion

- Zone 7's Strategic Goals and Initiatives
- Project Objectives
- Zone 7's Principles of Collaboration
- Scope of Work
- Exploratory Drilling
- Potential Pipeline Routes
- Evaluating Regional Project Wells
- Potential Mutual Benefits and Next Steps
- Q&A

# Zone 7's Strategic Goals and Initiatives

Strategic Goals


## Initiatives

| | |
|---|---|
| # 5 | Develop a diversified water supply plan and implement supported projects and programs |
| # 9 | Implement the PFAs Management Strategy |
| # 11 | Manage the Groundwater Sustainability Agency and implement the Groundwater Sustainability Plan |

ZONE 7 WATER AGENCY

## **Strategic Initiative #5:** Develop a diversified water supply plan and implement supported projects and programs

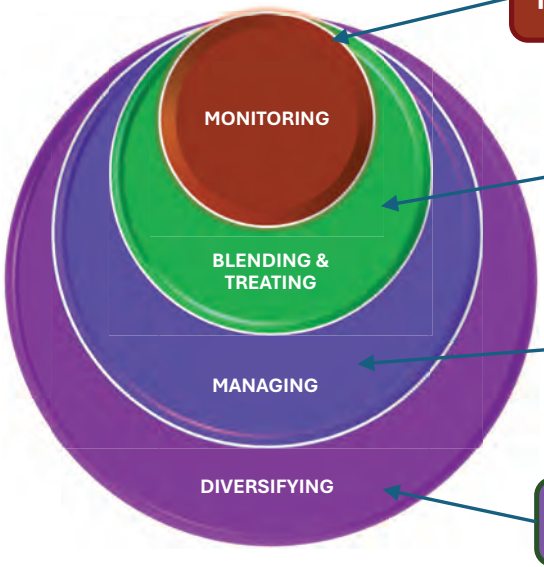
- Highly dependent on the State Water Project (SWP) and water supplies conveyed through the Delta
- The diverting water from the Delta has become increasingly unreliable
- The Delivery Capability Report (2023)forecasts substantial reductions in SWP delivery capability and reliability.
- The report projects meeting only 41%* to 46%** of Zone 7's entitlement in 2043
- Table A Water
- ***Diversifying water supplies is essential!***

** 95% level of concern (Estimated Average and Dry-Period Deliveries of SWP)*

*** 50% level of concern (the central tendency) (Estimated Average and Dry-Period Deliveries of SWP)*

ZONE 7 WATER AGENCY

## **Strategic Initiative #9:** Implement the PFAs Management Strategy




**MONITORING to track and manage groundwater quality**

**BLENDING & TREATING to meet water quality standards**

**MANAGING GROUNDWATER QUALITY to prevent further degradation****

**DIVERSIFYING GROUNDWATER SOURCES to become more resilient**

ZONE 7 WATER AGENCY

- This strategy is internally developed by Zone 7 in 2022.

** To the extent feasible

# Overview Zone 7 Well Fields


- New wells are required to increase groundwater production and system redundancy
- Our groundwater basin is local, under our control, and the main source of water supplies during droughts
- If we cannot continue to use or further develop our groundwater basin, we would have to invest in outside, more expensive water supplies.
- The 2005 Well Master Plan identified the need to install seven new wells; three new wells have been installed to date.
- Additional wells are necessary!

# Project Objectives

| Zone 7 | The City of Pleasanton |
|---|---|
| • To implement PFAS management strategy | • To recover 3,500 acre-feet of Groundwater Production Quota |
| • To enhance water supply reliability | • To improve water supply reliability |
| • To become more resilient to multiyear droughts | • To reduce wholesale water purchase costs |
| • To gain operational flexibility and redundancy | • To reduce operational complexity |
| • To achieve cost savings through economies of scale | • To achieve cost savings through economies of scale |
| • To minimize impact on the local community and environment | • To meet future drinking water regulations |

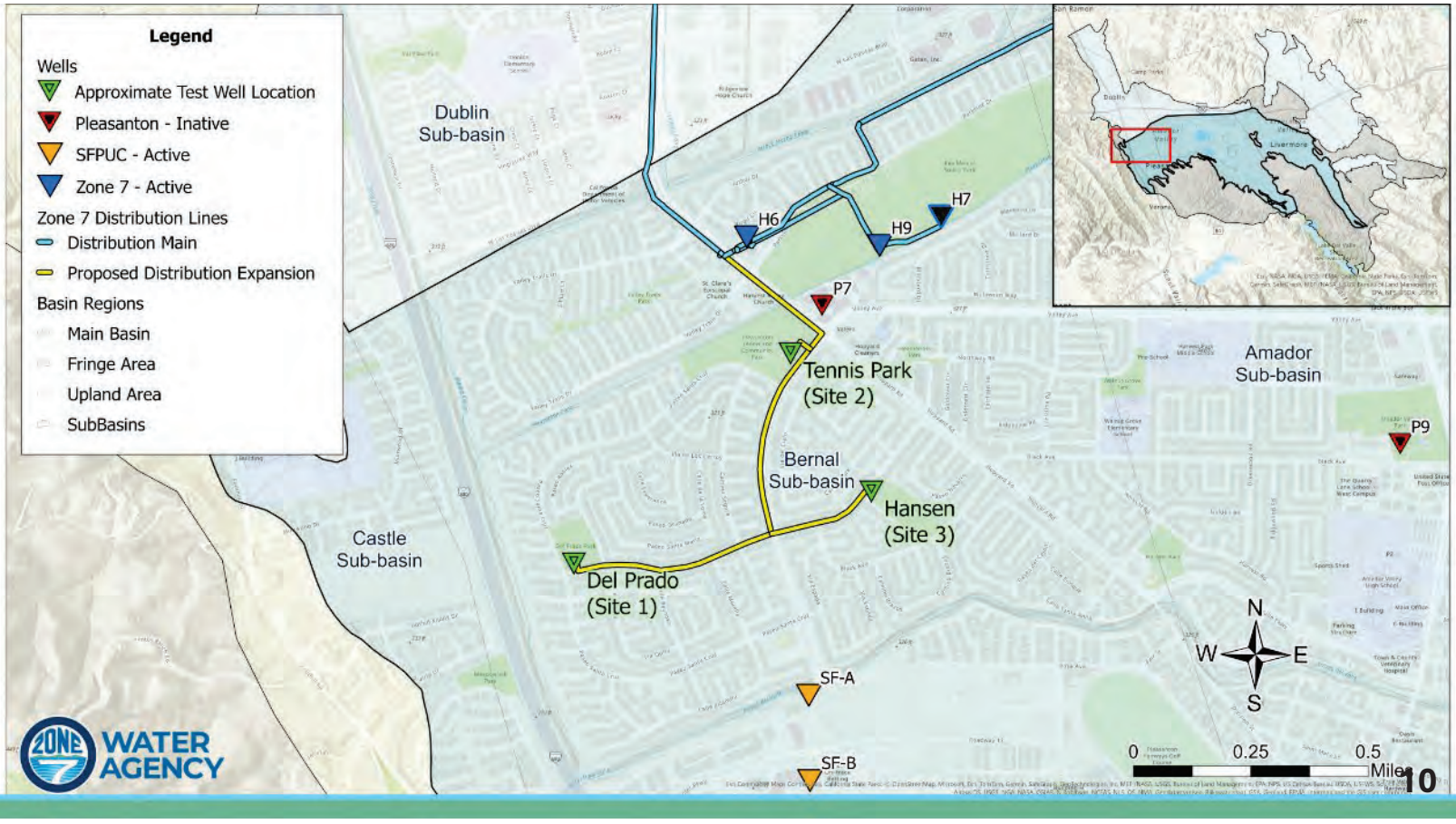
# Zone 7's Principles of Collaboration

Zone 7 Board approved the principles of collaboration on May 17, 2023:

1. Inputs from all retailers
2. No adverse operational impacts to Zone 7 or the regional water supply
3. No adverse impacts to water quality
4. No adverse impacts to the PFAs mobilization
5. Financial equity to Zone 7 and all retailers
6. Schedule that aligns with Zone 7 planning processes

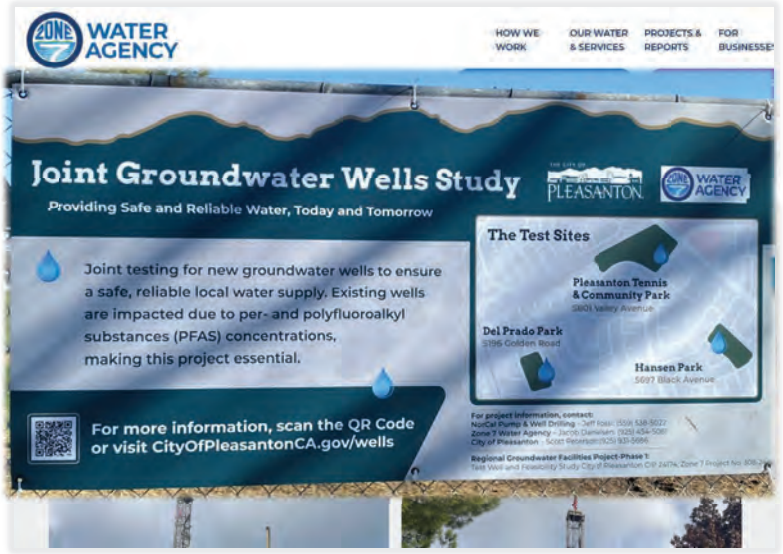
# Scope of Work

- Drill exploratory bore holes and construct three test wells at:
  1. Del Prado Park
  2. Pleasanton Tennis & Community Park
  3. Hansen Park
- Conduct Yield and Water Quality Testing at all sites
- Run Model Scenarios to analyze sustainability and PFAS mobilization
- Basis of Design
- Feasibility Study


Legend
Wells
Approximate Test Well Location
Pleasanton - Inative
SFPUC - Active
Zone 7 - Active
Zone 7 Distribution Lines
Distribution Main
Proposed Distribution Expansion
Basin Regions
Main Basin
Fringe Area
Upland Area
SubBasins
Dublin Sub-basin
Castle Sub-basin
Bernal Sub-basin
Amador Sub-basin
H6
H7
H9
P7
P9
Tennis Park (Site 2)
Hansen (Site 3)
Del Prado (Site 1)
SF-A
SF-B
N
W
E
S
0
0.25
0.5
Miles
ZONE 7 WATER AGENCY

# Community Outreach

- City of Pleasanton leading the outreach effort – Zone 7 supporting
- Public meetings
- Stakeholder Workshops
  - Public Outreach Event at Tennis Park
  - City Water Open House (3/1/25)
- Website Collaboration
- Information Poster at Drilling Site



# Exploratory Drilling


ZONE 7 WATER AGENCY

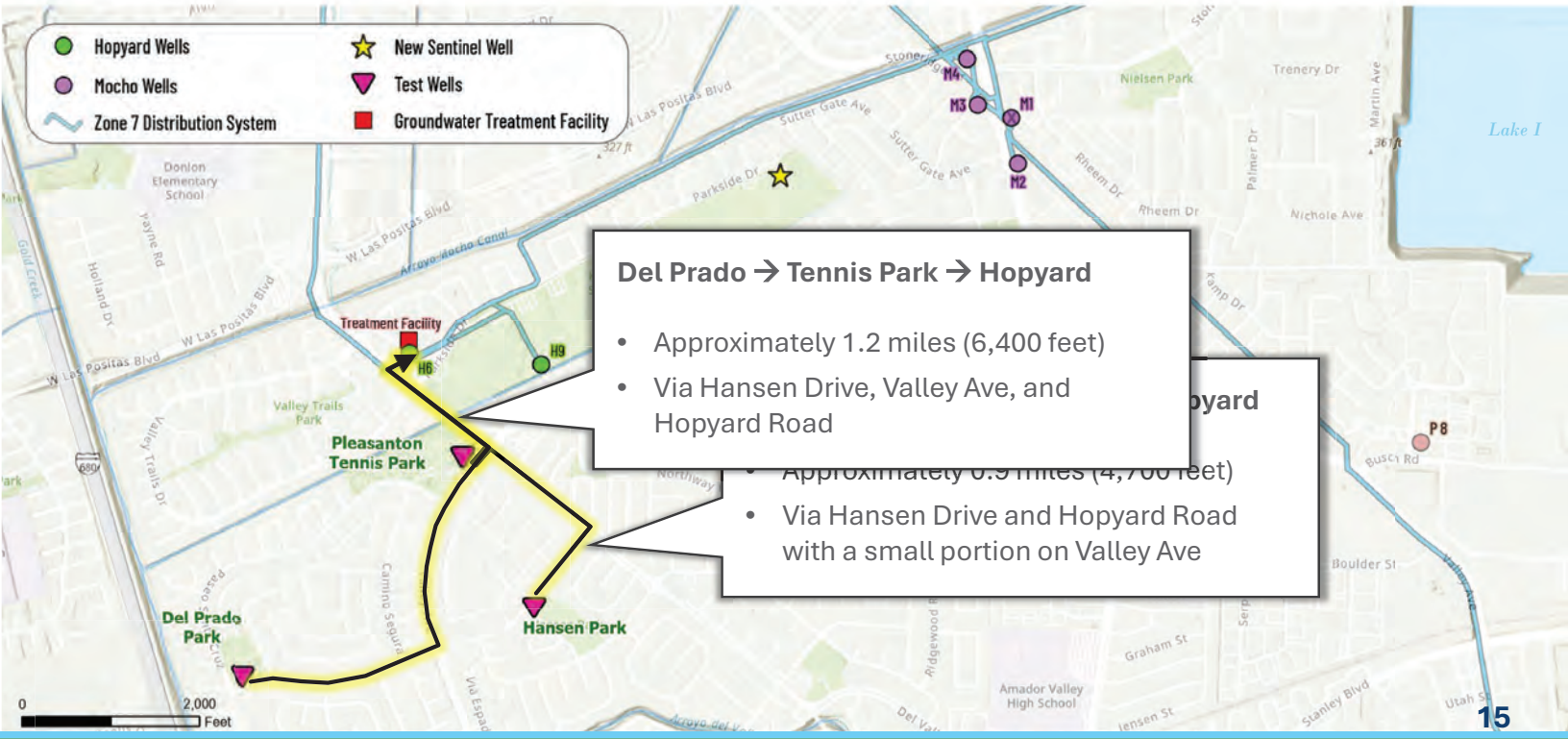
# Well Completion & Site Restoration

# Summary of Findings

| Well | Potential Pumping Rate (million gallons/day) | Potential Pumping Rate (Acre-feet/year) | Potential Average Pumping Rate** (Acre-feet/year) | PFOS/PFOA |
|---|---|---|---|---|
| **Del Prado** | 1.87 - 2.73 | 2,100 – 3,100 | **2,600** | ND |
| **Tennis Park** | 4.84 - 7.33 | 5,400 – 8,200 | **6,800** | ND |
| **Hansen** | 4.89 - 6.04 | 5,500- 6,800 | **6,150** | ND* |

*PFHxS: Composite: 2.5 ppt; MCL (now rescinded) = 10 ppt (parts per trillion); Response Level = 20 ppt
** This rate would be the designed pumping rate; the actual rate and groundwater production will be less than the designed rate due to maintenance and outages

# Potential Pipeline Routes



# Evaluating Regional Project Wells

**1. Groundwater Sustainability**

*Will the groundwater basin continue to be sustainable with the new wells?*

**2. Well interference**

*Will pumping new wells interfere with existing wells significantly?*

**3. PFAS mobilization**

*Will the known PFAS footprint be further mobilized by pumping new wells?*

# Model Findings

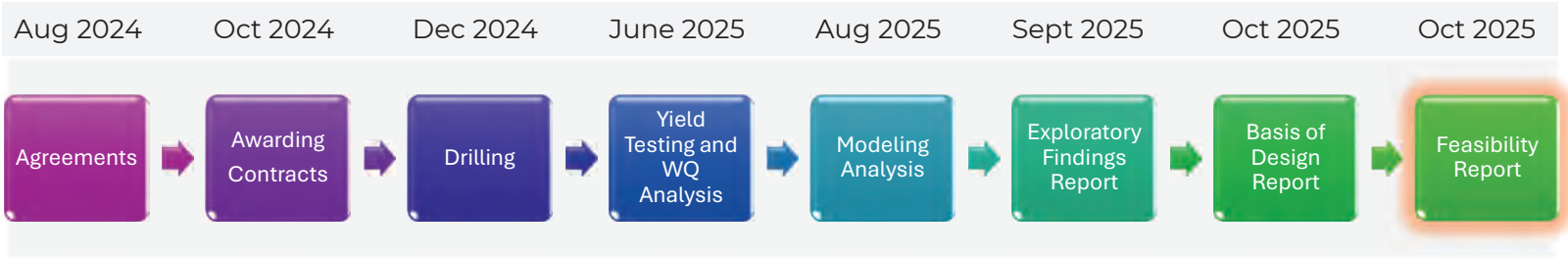
| Criteria | Baseline (no wells) | Project Scenario 1 (Tennis, Hansen, Del Prado) | Project Scenario 2 (Tennis and Hansen) | Project Scenario 3 (Tennis and Del Prado) |
|---|---|---|---|---|
| Groundwater Sustainability | ✓ | ✓ | ✓ | ✓ |
| Well Interference | ✓ | ✓ | ✓ | ✓ |
| PFAS Mobilization | ✓ | ✓ | ✓ | ✓ |

# Potential Mutual Benefits

- Significant cost savings for both parties
  - Cost savings for Zone 7 are cost savings for all four retailers
- Capital Costs will be shared based on proportional yields
- A single pipeline and upsized chemical facilities
- Minimized impacts on the local communities and streets
- More streamlined construction activities
- Minimize operational complexity
- Pleasanton will pay for water production costs on a pro rata basis
- Jointly meeting current and future water quality standards

ZONE 7 WATER AGENCY

# Next Steps




1. **Analyze** the feasibility of developing wells in terms of groundwater sustainability and PFAS mobilization (completed)
2. **Determine** the optimum selection of wells to achieve the project objectives for the City of Pleasanton and Zone 7 (completed)
3. **Assess** infrastructure needs, schedule, and total costs (ongoing)
4. **Formulate** each party's proportional cost share based on potential yields (ongoing)
5. **Evaluate** cost savings from economies of scale (by each party)
6. **Provide** necessary information and recommendations to the Zone 7 Board and the City Council to decide whether to jointly develop a regional project (TBD)


Questions?