Scotts Valley Water District

Recycled Water Alternatives Evaluation

SCOTTS VALLEY WATER DISTRICT

September, 2020

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Contents

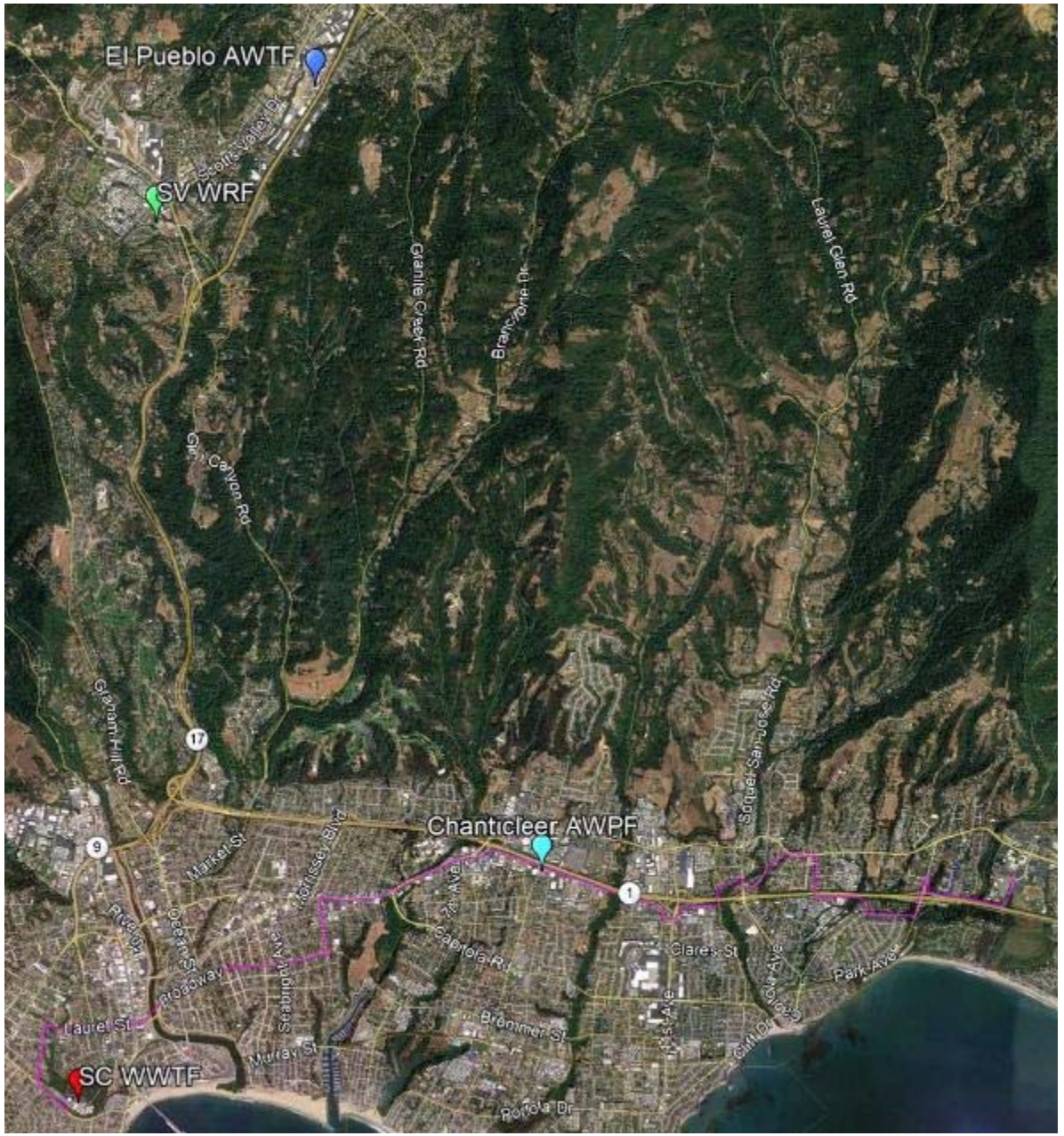
- Introduction
  - 2017 Facilities Planning Report, SMGB GWR Program Recap
- Alternatives Evaluated
  - Alternatives Matrix
  - Descriptions
  - Schematics
  - Facility Maps
  - Costs, Benefits & Drawbacks
- Alternatives Cost Summary
- Evaluation Criteria & Sensitivity Analysis
- Alternatives Evaluation Results

Introduction

- 2017 Facilities Planning Report, SMGB GWR Program Recommended Alternative #3
  - AWTF at El Pueblo Site with treatment capacity = 1 MGD
  - Project yield for groundwater replenishment = 475 AFY
  - Reuse of existing SVWD Wells 11A and 11B for injection
  - Total capital cost = $15.4M
  - O&M Annual Cost = $0.5M
  - Total Annualized Cost = $2,170/AFY
  - Costs for treatment improvements at WRF to supply the AWTF were not included
  - Seasonal limitations of brine disposal impacts to downstream users (Pasatiempo) where not considered

Local and Regional Stakeholders & New Opportunities

- Proposed Alignment to Chanticleer AWTF
- Proposed SqC AWPF at Chanticleer
- Proposed SV AWTF at El Pueblo
- Existing SC-WWTF
- Existing SV-WRF



Alternatives Matrix

Alternative	Sub Alternative	Description	Source Water	Treatment	Limiting Conditions
Baseline	1	Implement Improvements to SV-WRF to supply new AWTF	City of SV Tertiary Effluent	Secondary and Tertiary treatment at SV-WRF Advanced Purified Treatment at El Pueblo AWTF	1. Requires upgrades to treatment at SV WRF 2. Limited Groundwater Recharge due to brine disposal limitations
Local Projects	**2A - Not further evaluated**	Dual Plant Solution (SVWD MBR + SV WRF)	City of SV Secondary Effluent	Tertiary treatment at SV-WRF Independent tertiary treatment at MBR facility (operated by SVWD)	1. Requires upgrades to treatment at SV WRF 2. Limited Groundwater Recharge due to brine disposal limitations
	2B	One Plant Solution	City of SV Secondary Effluent	Secondary treatment at SV-WRF Tertiary and Advanced Purified treatment at El Pueblo AWTF	1. Limited Groundwater Recharge due to brine disposal limitations
	2C	One Plant Solution (MBR)	City of SV Raw Wastewater	Secondary and tertiary treatment with Scalping MBR (assumed at SV-WRF)	1. Limited Groundwater Recharge due to limited treatment capacity of scalping MBR
Regional Projects	3A	Treatment at SC WWTF	Filtered Secondary Effluent from SC-WWTF	Filtered + Secondary Treatment at SC-WWTF Tertiary Disinfection + Advanced Purified Treatment at El Pueblo AWTF	1. Purified treatment sizing based on available conveyance capacity from Alignment to Chanticleer
	3B	Purified Water from Chanticleer AWPF	Advanced Purified Effluent from Chanticleer AWPF	Advanced Purified Treatment at Chanticleer AWPF	1. Groundwater recharge capacity based on available treatment capacity at Chanticleer AWPF
	3C	Maximize Reuse	Tertiary Effluent from SC	New Tertiary treatment location near SC-WWTF Advanced Purified treatment at SV (Location TBD)	1. Treatment Capacity based on available effluent at SC-WWTF after meeting needs of SCWD and SqCWD

Alternative 1 - Baseline

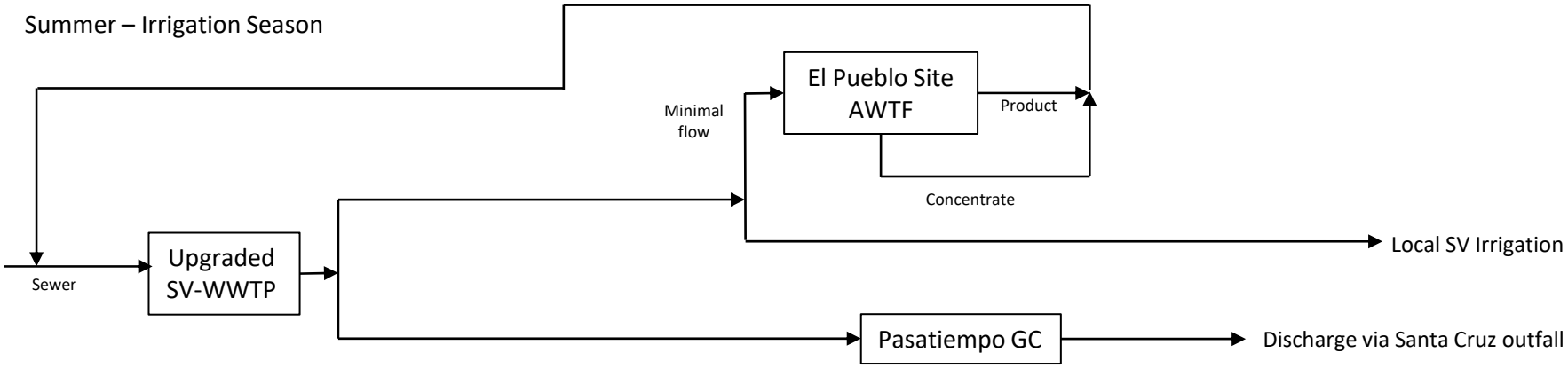
DESCRIPTION:

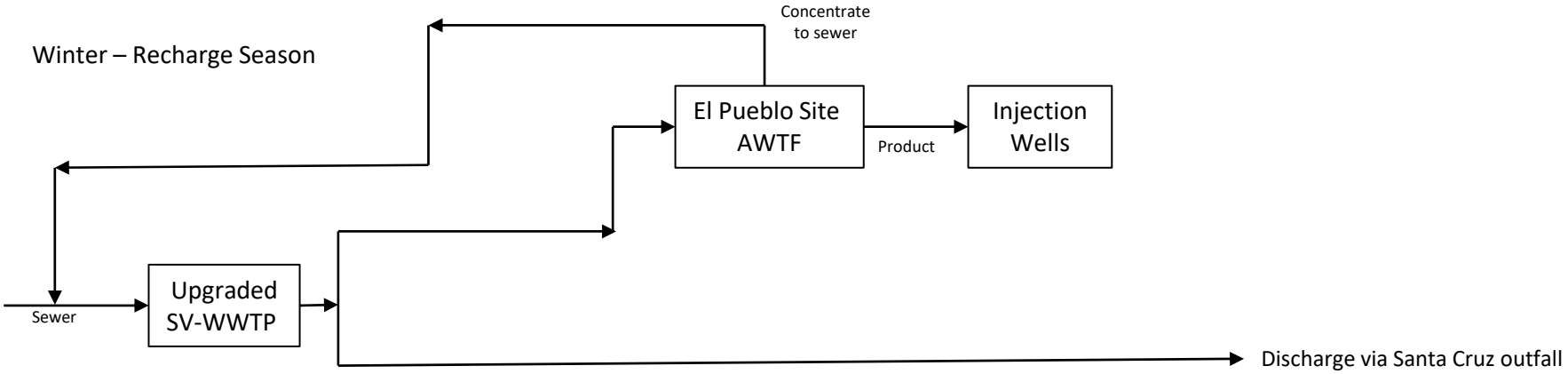
- Continue treatment at SV-WRF by implementing required plant improvements
- Supply Pasatiempo with tertiary effluent from SV-WRF (dry season only)
- Supply RW customers with tertiary effluent from SV-WRF (dry season only)
- Supply tertiary effluent from SV-WRF to new El Pueblo site (wet season only)
- Produce purified water for injection at El Pueblo AWTF (wet season only)
- Brine from El Pueblo AWTF to be discharged to sewer (wet season only)

FACILITIES SIZING

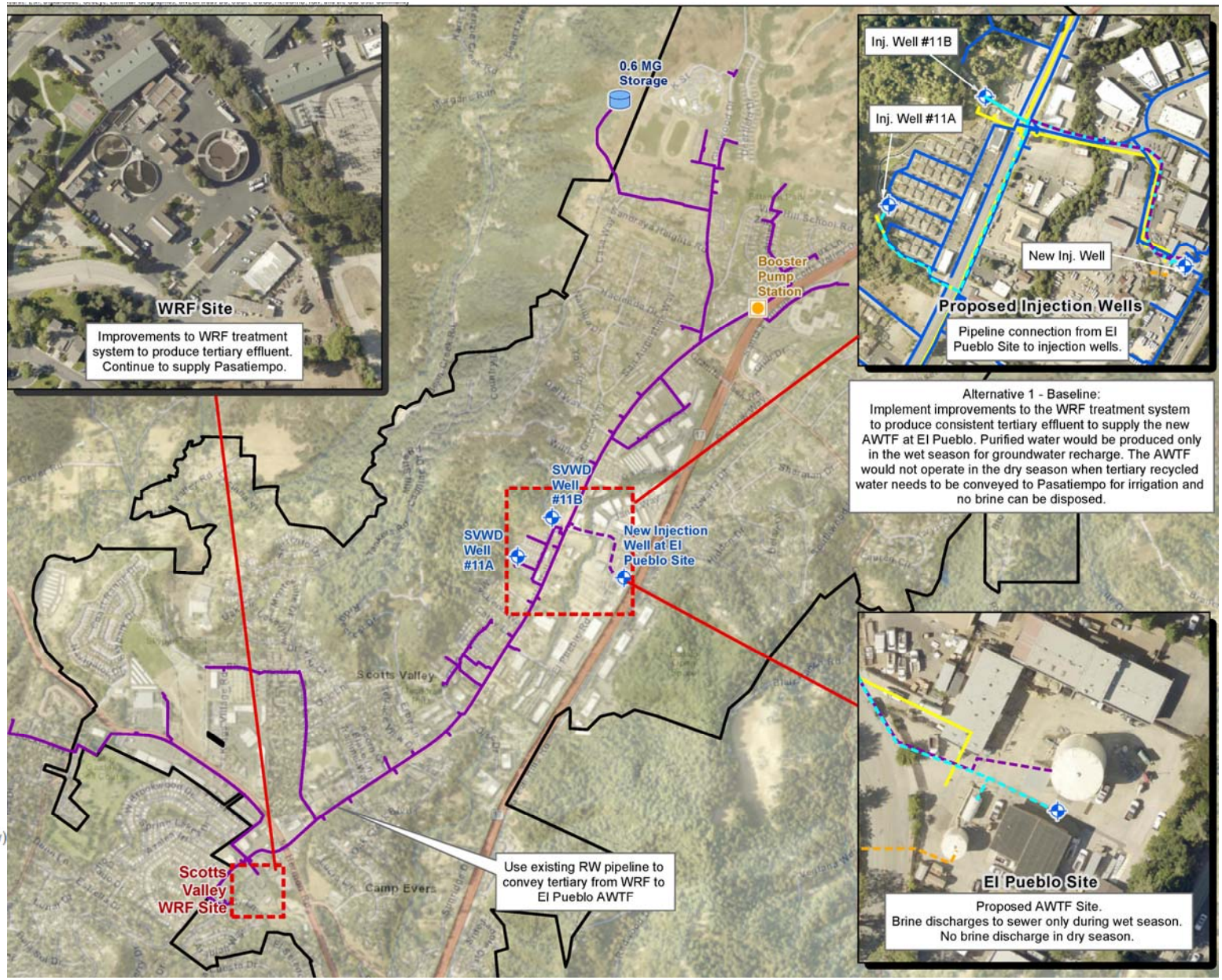
- 0.85 MGD secondary and tertiary treatement at SV-WRF (wet season)
  - 0.77 MGD tertiary effluent supplied to El Pueblo AWTF (wet season only)
- 0.74 MGD secondary and tertiary treatement at SV-WRF (dry season)
  - 0.16 MGD secondary effluent supplied to Pasatiempo (dry season only)
  - 0.32 MGD tertiary effluent supplied to RW Customers (dry season only)
- 0.77 MGD advanced treatment at El Pueblo AWTF (wet season only)
- 0.55 MGD purified water produced (wet season only)
- 250 AFY recharged via 3 injection wells near El Pueblo Site (wet season only)

Alternative 1 – Baseline





Alternative 1 Baseline



Alternative 1 - Baseline

CONCEPTUAL COST ESTIMATE

- Capital Cost =$29.7 M ($9.3M Tertiary + $20.4M Advanced Purification)
- Annual O&M Cost= $1 M ($0.2M Tertiary + $0.8M Advanced Purification)
- Total Annual Cost = $10,200/AF ($7,500/AF Advanced Purification only)

BENEFITS:

- Localized treatment systems
- Minimizes local impacts from construction
- Reduced interagency coordination and requirements
- Improvements to local assets (SV-WRF)

DRAWBACKS:

- Limited purified water production capacity (recharge only in winter)
- Does not maximize beneficial reuse
- Not cost effective
- Needs to consider additional cost for full upgrades at SV-WRF

Alternative 2A – Dual Plant Solution (not further evaluated)

DESCRIPTION:

- Continue partial treatment at SV-WRF by implementing some plant improvements
- Supply Pasatiempo with secondary effluent from SV-WRF (dry season only)
- New scalping MBR for independent secondary & tertiary treatment (assumed to treat 60% of available effluent)
- Supply RW customers with tertiary effluent from scalping MBR (dry season only)
- Supply tertiary effluent from scalping MBR to new El Pueblo site (wet season only)
- Produce purified water for injection at El Pueblo AWTF (wet season only)
- Brine from El Pueblo AWTF to be discharged to sewer (wet season only)

FACILITIES SIZING

- 0.85 MGD secondary treatement at SV-WRF (wet season)
  - 0.49 MGD secondary effluent supplied to MBR
  - 0.16 MGD secondary effluent supplied to Pasatiempo (dry season only)
- 0.49 MGD treatment at scalping MBR
  - 0.32 MGD tertiary effluent supplied to RW Customers (dry season only)
  - 0.48 MGD tertiary effluent supplied to El Pueblo AWTF (wet season only)
- 0.34 MGD purified water produced (wet season only)
- 160 AFY recharged via 3 injection wells at El Pueblo Site (wet season only)

Alternative 2B – One Plant Solution

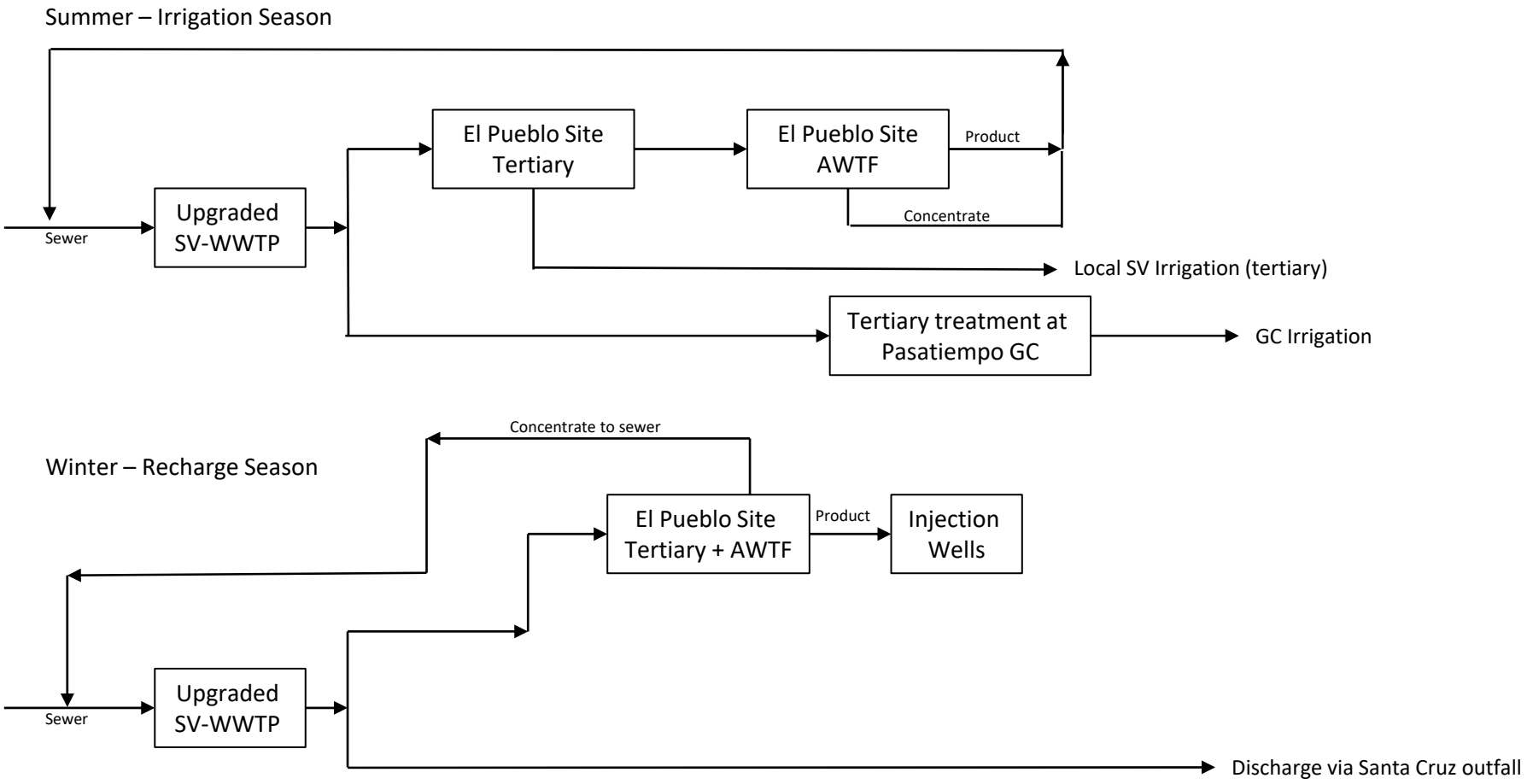
DESCRIPTION:

- Continue secondary treatment at SV-WRF by implementing some plant improvements.
- Supply Pasatiempo with secondary effluent from SV-WRF (dry season only)
- Supply secondary effluent to tertiary treatment at El Pueblo site
- Supply RW customers with tertiary effluent from EL Pueblo site (dry season only)
- Produce purified water for injection at El Pueblo AWTF (wet season only)
- Brine from El Pueblo AWTF to be discharged to sewer (wet season only)

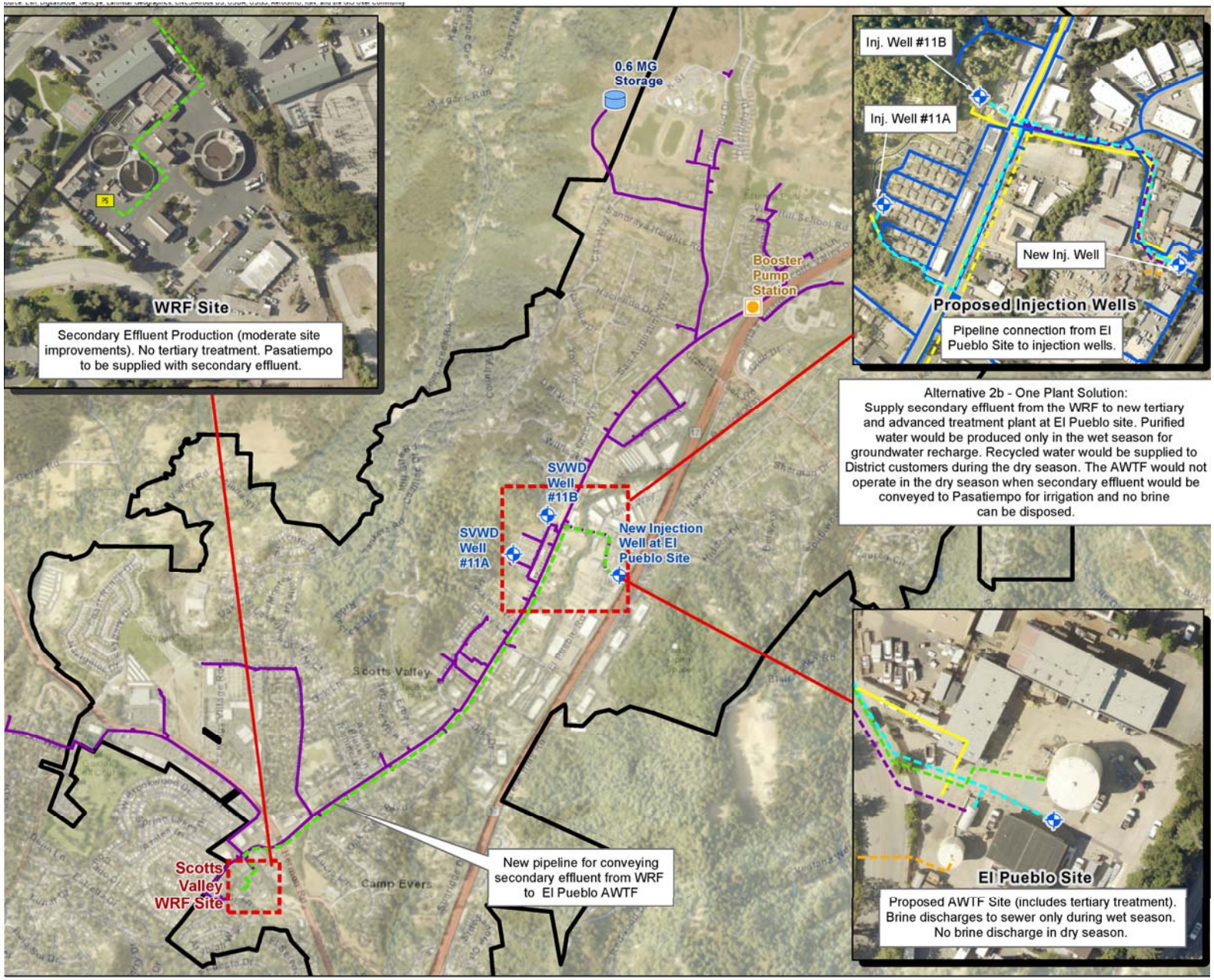
FACILITIES SIZING

- 0.85 MGD secondary treatement at SV-WRF (wet season)
- 0.74 MGD secondary treatement at SV-WRF (dry season)
  - 0.16 MGD secondary effluent supplied to Pasatiempo (dry season only)
- 0.85 MGD tertiary treatment at El Pueblo site
  - 0.32 MGD supplied to RW Customers (dry season only)
- 0.77 MGD advanced treatment at El Pueblo AWTF(wet season only)
- 0.55 MGD purified water produced (wet season only)
- 250 AFY recharged via 3 injection wells at El Pueblo Site (wet season only)

Alternative 2B – One Plant Solution



Alternative 2B One Plant Solution



Alternative 2B – One Plant Solution

CONCEPTUAL COST ESTIMATE

- Capital Cost =$27.8 M ($4.1M Tertiary + $23.7M Advanced Purification)
- Annual O&M Cost= $1.2 M ($0.3M Tertiary + $0.9M Advanced Purification)
- Total Annual Cost = $10,400/AF ($8,500/AF Advanced Purification only)

BENEFITS:

- Consolidated local treatment plant
- Reduced interagency coordination and requirements
- Improvements to local assets (SV-WRF)

DRAWBACKS:

- Local impacts from construction (conveyance of secondary effluent)
- Limited purified water production capacity (recharge only in winter)
- Does not maximize beneficial reuse
- Needs to consider additional cost for some upgrades at SV-WRF

Alternative 2C – One Plant Solution (MBR)

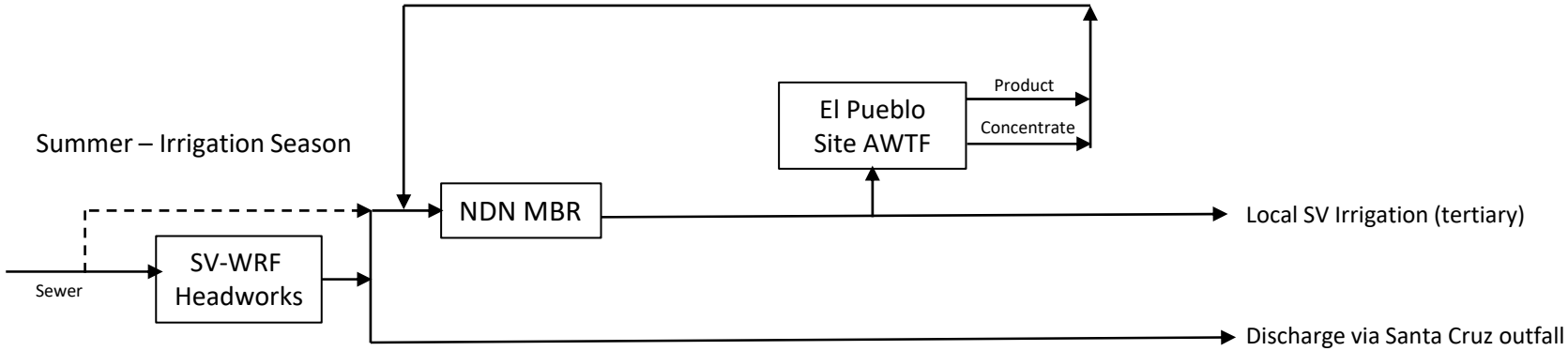
DESCRIPTION:

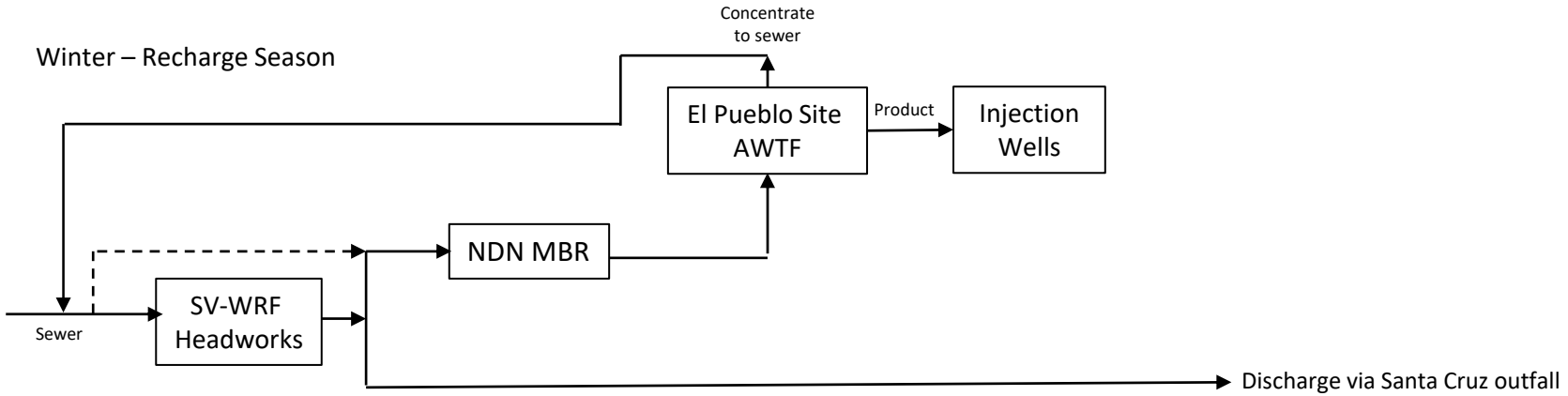
- Raw wastewater from SV-WRF would be treated by a scalping MBR
- Supply tertiary effluent from scalping MBR to AWTF at El Pueblo site (year round)
- Assumed scalping MBR to capture and treat 60% of available secondary effluent
- Supply RW customers with tertiary effluent from scalping MBR (dry season only)
- Produce purified water for injection at El Pueblo AWTF (year round)
- Brine from El Pueblo AWTF to be discharged to sewer (year round)
- Supply Pasatiempo with either potable water or tertiary effluent from SC-WWTF

FACILITIES SIZING

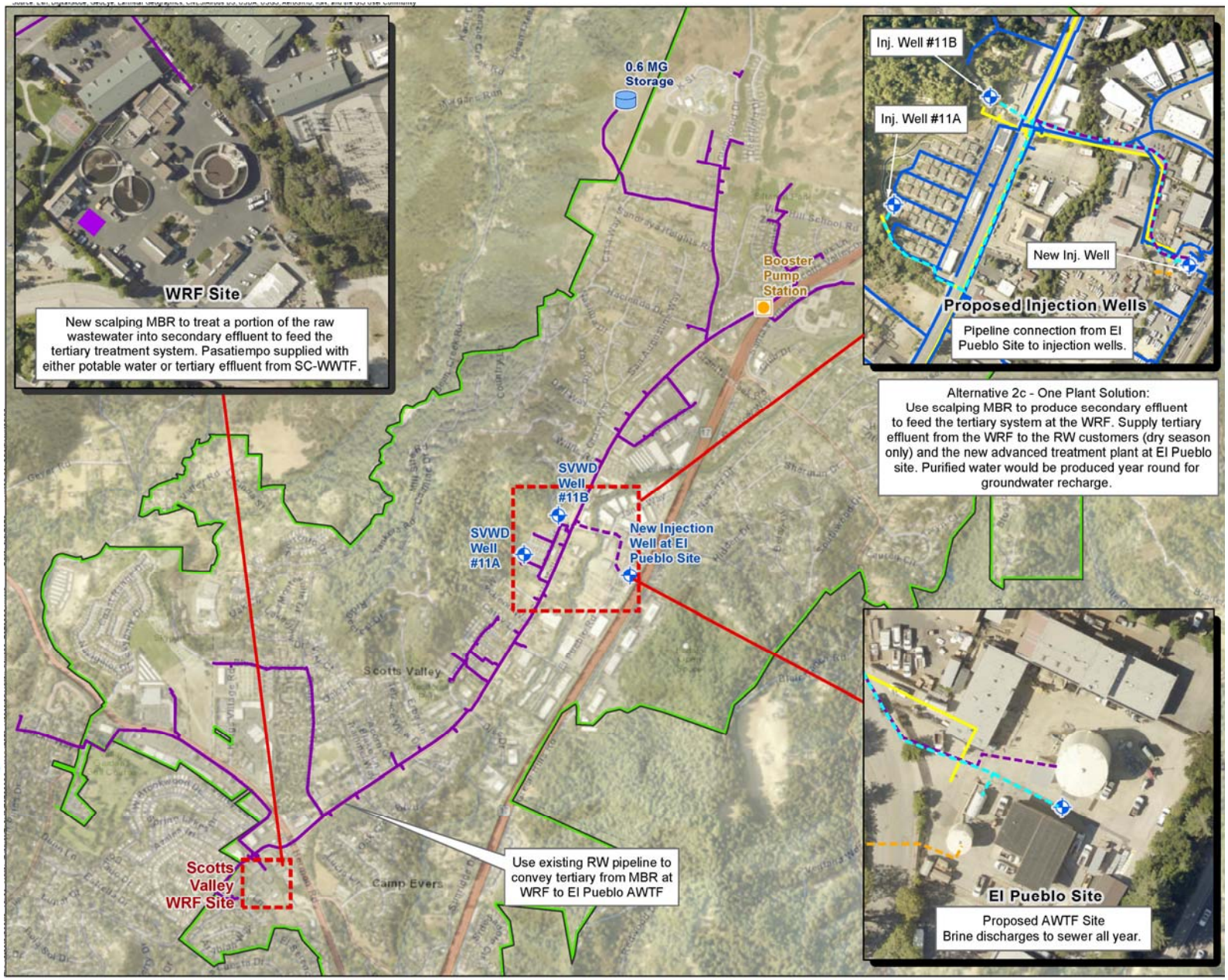
- 0.51 MGD tertiary treatment at scalping MBR
  - 0.32 MGD supplied to RW Customers (dry season only)
- 0.49 MGD advanced treatment at El Pueblo AWTF
- 0.35 MGD purified water produced (wet season) + 0.17 MGD produced (dry season)
- 250 AFY recharged via 3 injection wells at El Pueblo Site (year round)

Alternative 2C – One Plant Solution (MBR)





Alternative 2C – One Plant Solution (MBR)



Alternative 2C – One Plant Solution (MBR)

CONCEPTUAL COST ESTIMATE

- Capital Cost =$18.9 M ($5.1M Tertiary + $13.8M Advanced Purification)
- Annual O&M Cost= $0.9 M ($0.2M Tertiary + $0.7M Advanced Purification)
- Total Annual Cost = $7,500/AF ($5,500/AF Advanced Purification only)

BENEFITS:

- Localized Treatment Systems
- Minimizes local impacts from construction
- Reduced interagency coordination and requirements

DRAWBACKS:

- Limited purified water production capacity (due to limited MBR treatment capacity)
- Does not maximize beneficial reuse
- Operational complexities
- Needs to consider additional cost for some upgrades at SV-WRF

Alternative 3A – Treatment at SC-WWTF

DESCRIPTION:

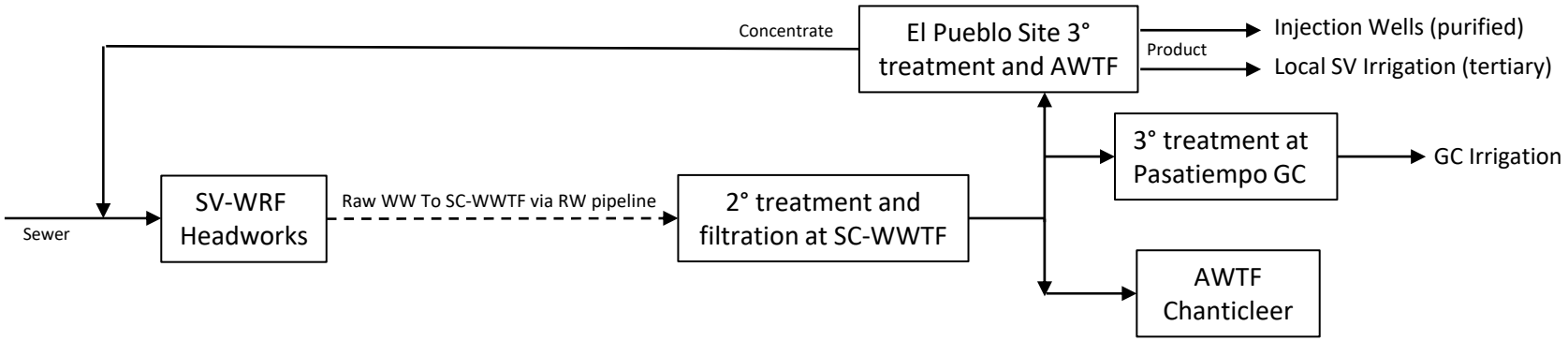
- Supply filtered secondary effluent from SC-WWTF to El Pueblo AWTF
- Supply RW customers with tertiary effluent from El Pueblo AWTF (disinfection only, dry season only)
- Produce purified water for injection at El Pueblo AWTF (year round)
- Brine from El Pueblo AWTF to be discharged to sewer (year round)
- Supply Pasatiempo with secondary effluent from SC-WWTF

FACILITIES SIZING

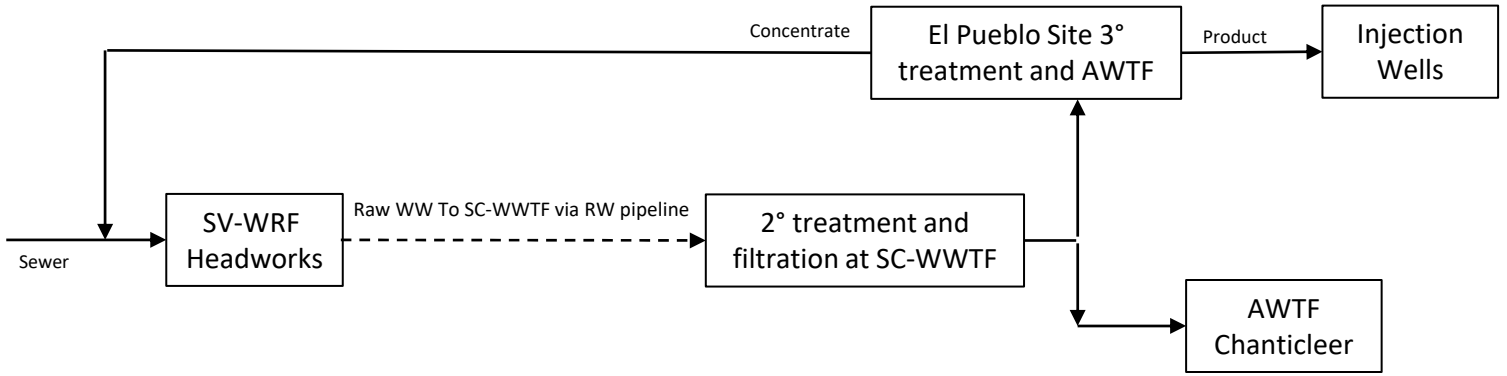
- 1.02 MGD secondary and tertiary treatment at SC-WWTF
  - 0.16 MGD tertiary (non-disinfected) effluent supplied to Pasatiempo (dry season only)
  - 0.32 MGD tertiary disinfected effluent supplied to RW Customers (dry season only)
- 1.01 MGD (wet season) + 0.53 MGD (dry season) advanced treatment at El Pueblo AWTF
- 0.81 MGD (wet season) + 0.38 MGD (dry season) purified water produced
- 540 AFY recharged via 3 injection wells at El Pueblo Site (year round)
- 80 AFY recharged via 1 additional injection well at a location to be determined (asume Hanson Quarry for cost estimating purposes)

Alternative 3A – Treatment at SC-WWTF

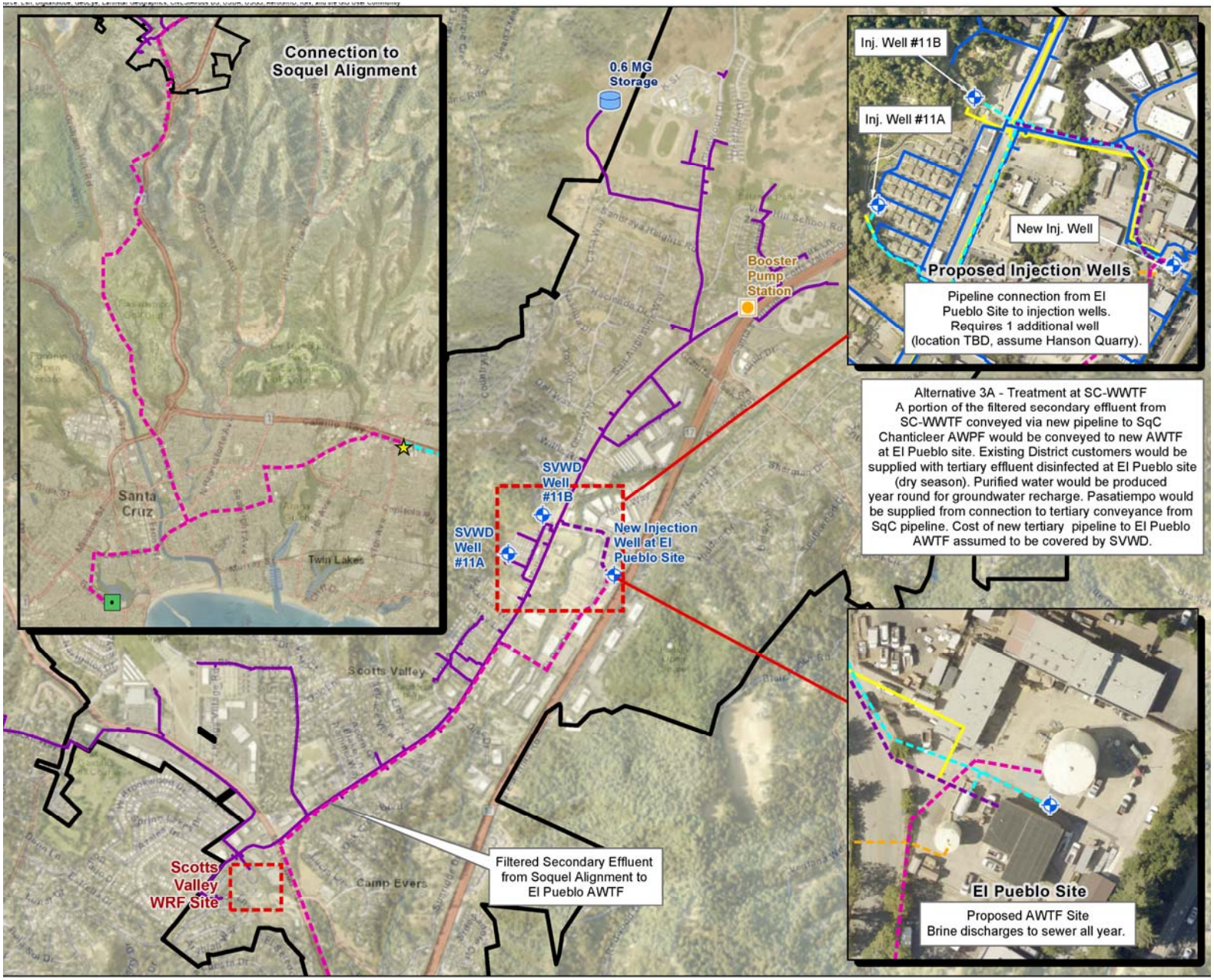
Summer – Irrigation Season



Winter – Recharge Season



Alternative 3A Treatment at SC-WWTF



Alternative 3A – Treatment at SC-WWTF

CONCEPTUAL COST ESTIMATE

- Capital Cost =$53.1 M ($6.6M Tertiary + $46.5M Advanced Purification)
- Annual O&M Cost= $2 M ($0.4M Tertiary + $1.6M Advanced Purification)
- Total Annual Cost = $7,600/AF ($6,400/AF Advanced Purification only)

BENEFITS:

- Production of purified water to meet GWR targets
- Increased beneficial reuse
- Potential revenue stream associated with selling additional purified water to SCWD

DRAWBACKS:

- Local impacts from construction (extensive conveyance)
- Requires interagency coordination
- Operational complexities

Alternative 3B – Purified Water from Chanticleer AWPF

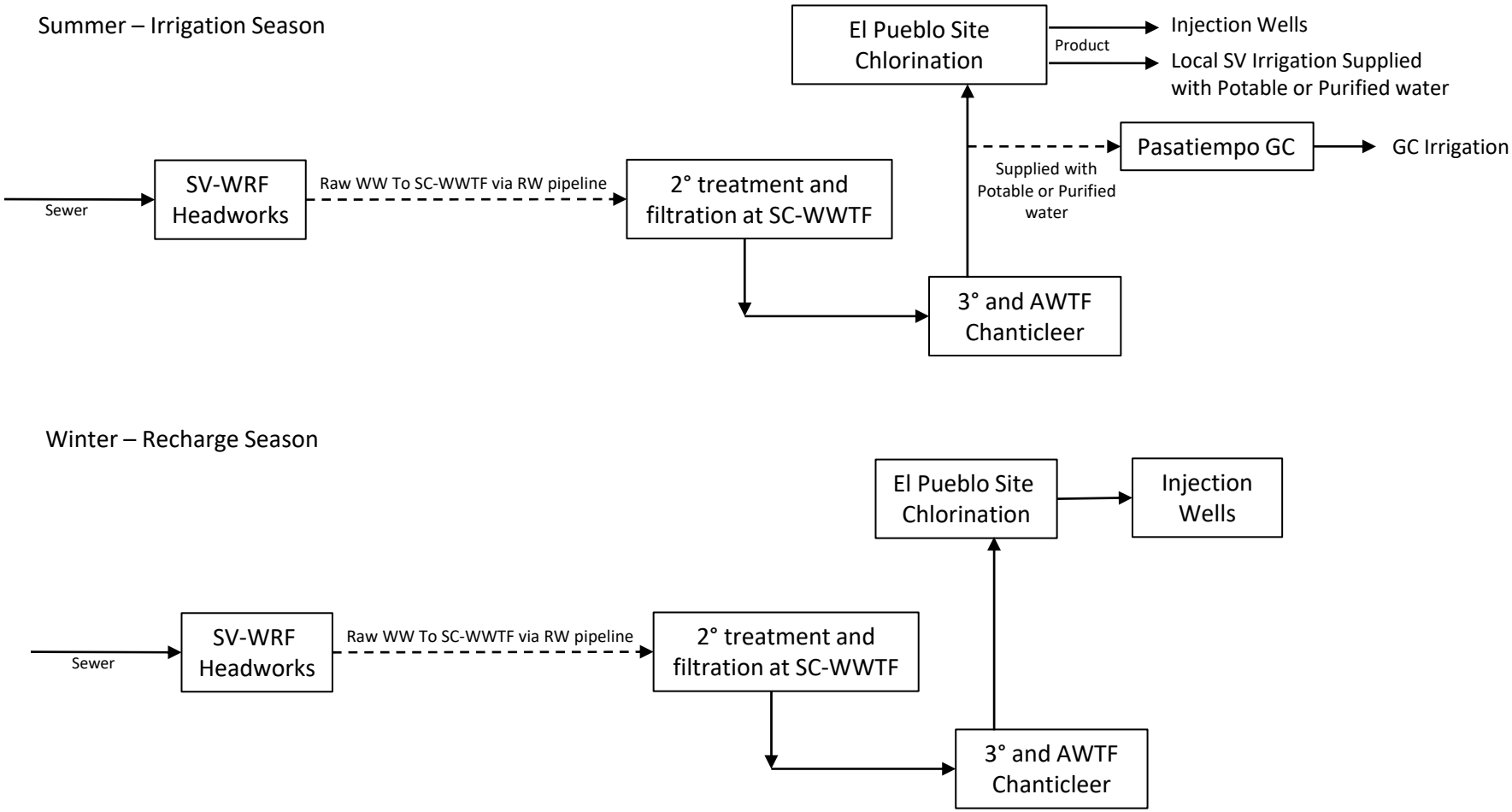
DESCRIPTION:

- Supply advanced purified effluent from Chanticleer AWPF to El Pueblo site
- Provide additional disinfection of purified effluent at El Pueblo site
- Disinfected purified water supplied for injection at El Pueblo site (year round)
- Supply RW customers and Pasatiempo with either potable or purified water
- Brine generated at Chanticleer AWPF discharged via SC outfall

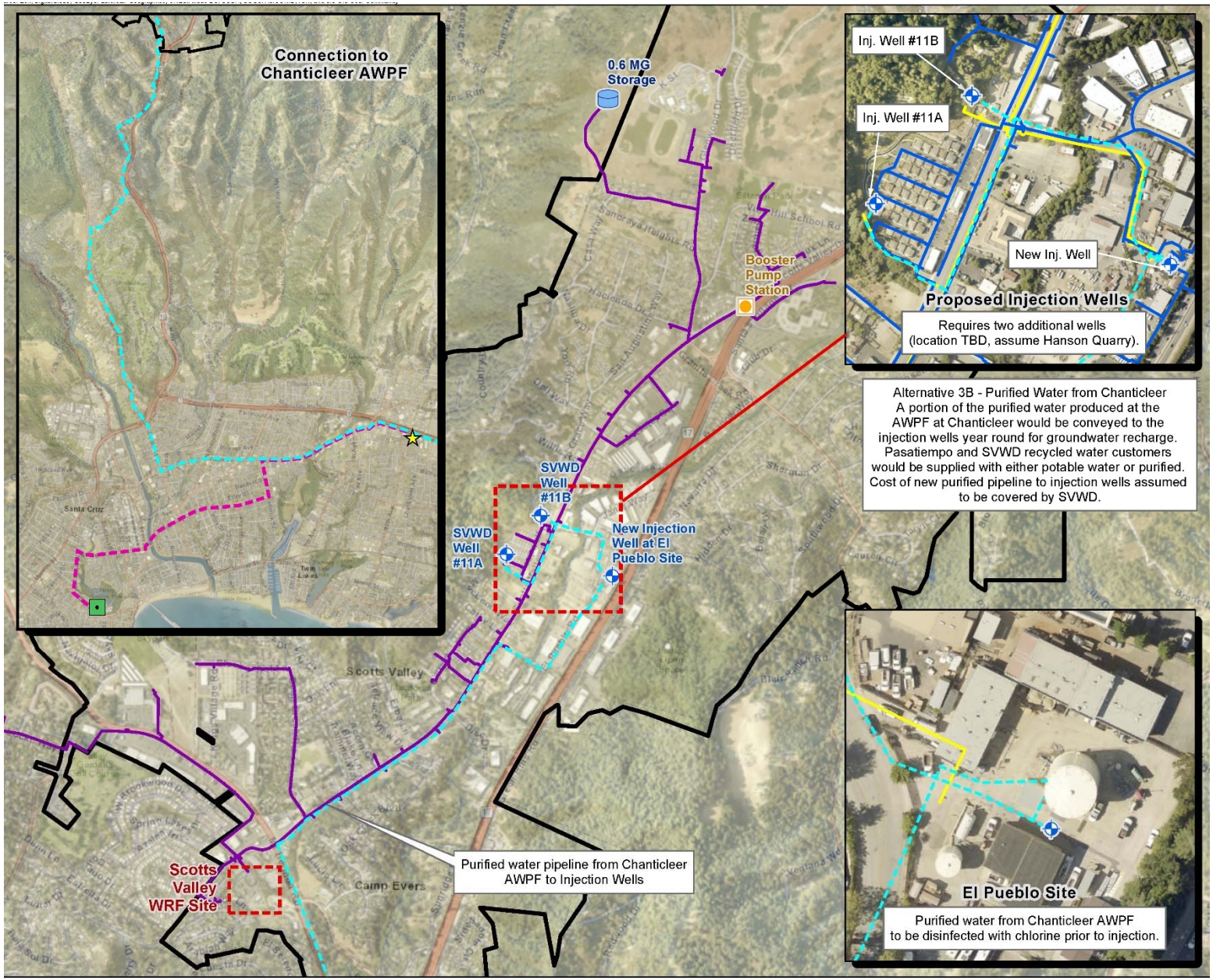
FACILITIES SIZING

- 1.02 MGD tertiary treatment at SC-WWTF
- 1.01 MGD advanced treatment at Chanticleer AWPF
- 0.81 MGD purified water produced (year round)
- 540 AFY recharged via 3 injection wells at El Pueblo Site
- 370 AFY recharged via 2 additional injection wells at a location to be determined (assume Hanson Quarry for cost estimating purposes)

Alternative 3B – Purified Water from Chanticleer AWPF



Alternative 3B Purified Water from Chanticleer AWPF



Alternative 3B – Purified Water from Chanticleer AWPF

CONCEPTUAL COST ESTIMATE

- Capital Cost =$57.8 M ($7.9M Tertiary + $49.9M Advanced Purification)
- Annual O&M Cost= $2.6 M ($0.4M Tertiary + $2.2M Advanced Purification)
- Total Annual Cost = $6,100/AF ($5,200/AF Advanced Purification only)

BENEFITS:

- Production of purified water to meet GWR targets
- Increased beneficial reuse
- Minimal Operational Complexities
- Moderately cost effective (assuming revenue stream associated with selling additional purified water to SCWD)

DRAWBACKS:

- Local impacts from construction (extensive conveyance)
- Requires interagency coordination

Alternative 3C – Maximize reuse

DESCRIPTION:

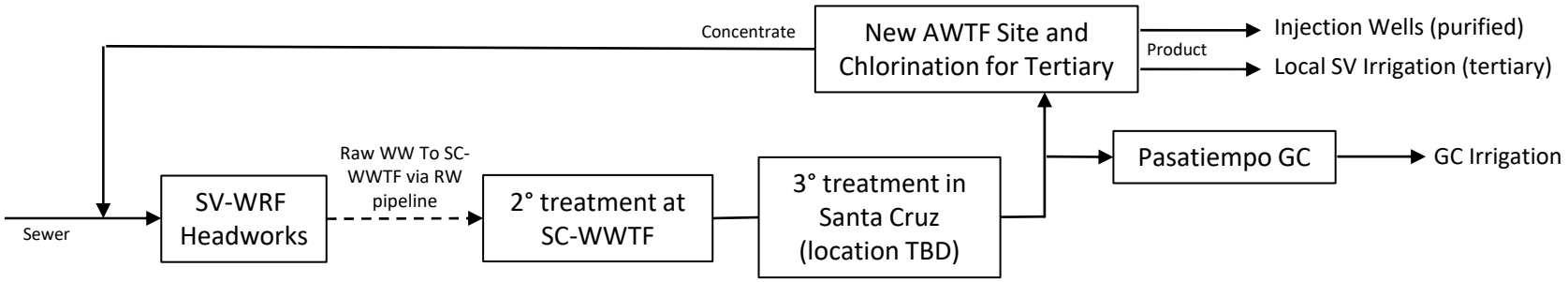
- Supply filtered secondary effluent from SC-WWTF to new tertiary treatment plant (location to be determined, assumed within 1 mile from SC-WWTF)
- Supply tertiary effluent from new plant near SC-WWTF to new AWTF (location to be determined, assumed Hanson Quarry) year round and Pasatiempo on the dry season only
- Supply RW customers with tertiary effluent from new AWTF (disinfection only, dry season only)
- Produce purified water for injection at new AWTF (year round)
- Brine from new AWTF to be discharged to sewer (year round)

FACILITIES SIZING

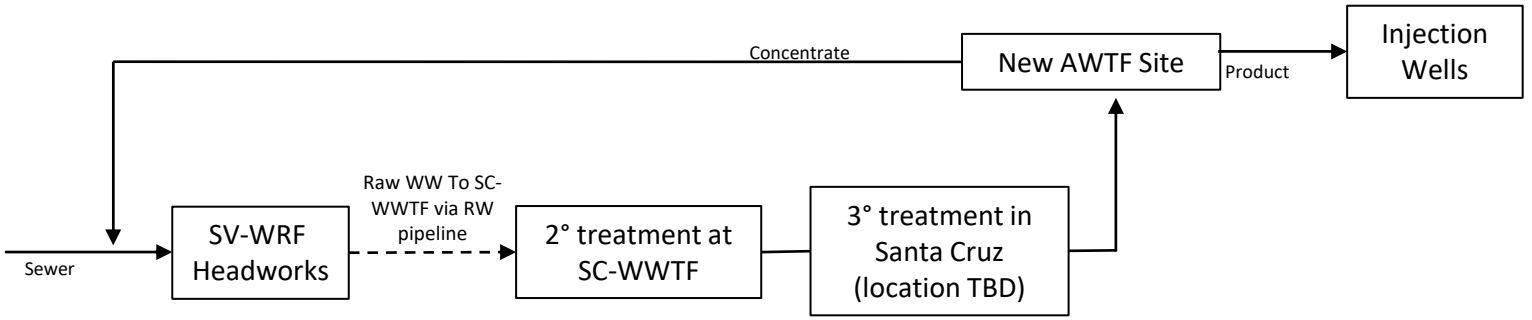
- 4.27 MGD secondary/tertiary treatment at/near SC-WWTF
  - 0.16 MGD tertiary effluent supplied to Pasatiempo (dry season only)
- 3.55 MGD advanced treatment at new AWTF
  - 0.32 MGD tertiary disinfected supplied to RW Customers (dry season only)
- 2.53 MGD (wet season) + 2.18 MGD (dry season) purified water produced
- 540 AFY recharged via 3 injection wells at El Pueblo Site
- 2,060 AFY recharged via 7 additional injection well at a location to be determined (asume Hanson Quarry for cost estimating purposes)

Alternative 3C – Maximize Reuse

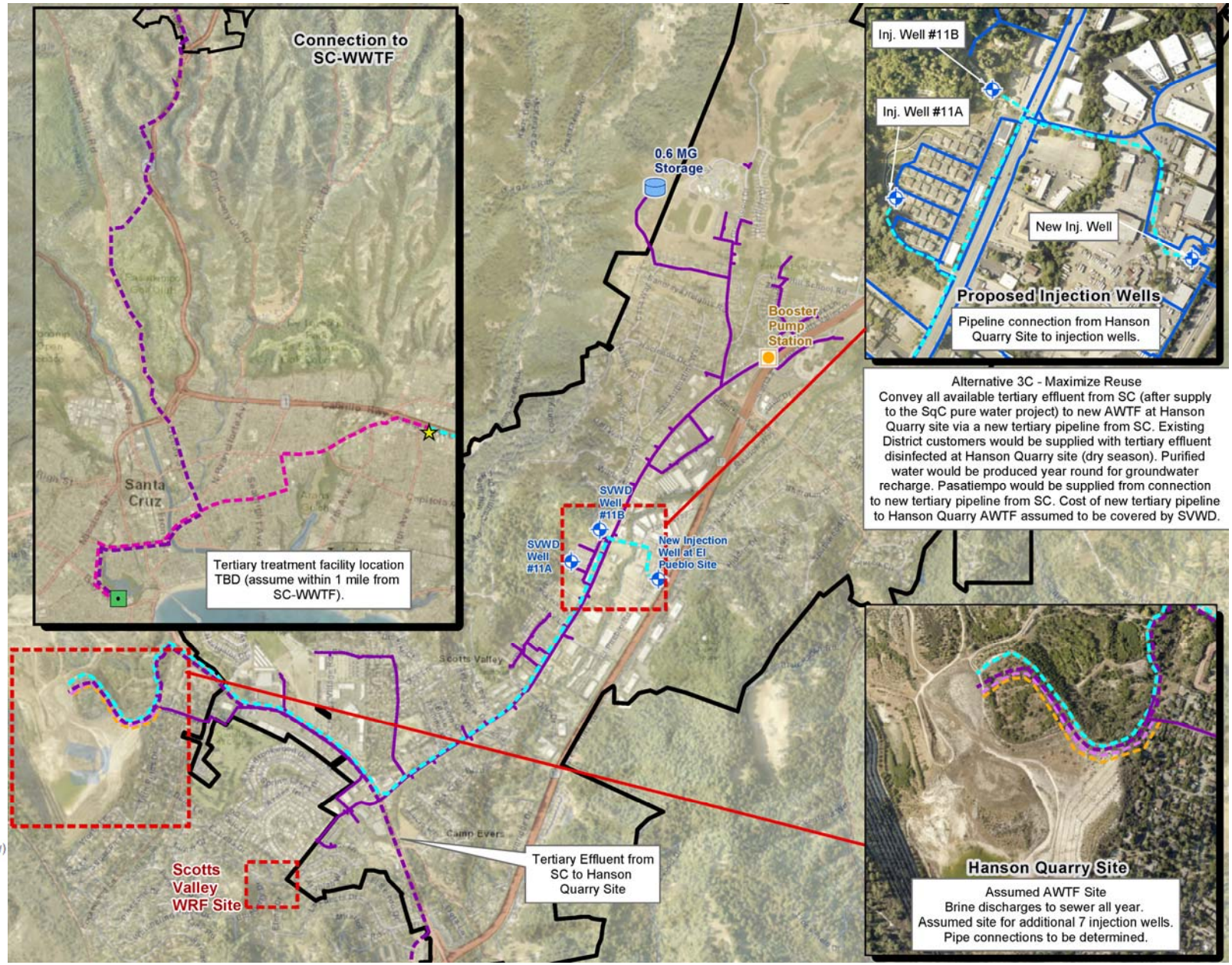
Summer – Irrigation Season



Winter – Recharge Season



Alternative 3 Maximize reuse



Alternative 3C – Maximize reuse

CONCEPTUAL COST ESTIMATE

- Capital Cost =$160.7 M ($32.1M Tertiary + $128.6M Advanced Purification)
- Annual O&M Cost= $5.8 M ($0.8M Tertiary + $5M Advanced Purification)
- Total Annual Cost = $5,400/AF ($4,500/AF Advanced Purification only)

BENEFITS:

- Maximizes production of purified water beyond GWR targets
- Maximizes beneficial reuse
- Potentially cost effective (assuming revenue stream associated with selling additional purified water to SCWD)

DRAWBACKS:

- Regional impacts from construction (extensive conveyance)
- Operational complexity
- Large capital cost
- Requires interagency coordination

Alternatives Cost Summary

								Tertiary Treatment		RW Production for District		Tertiary for AWTF Feed		Advanced Purification [h]				Tertiary + Advanced Treatment			
Alternatives		Purified Water Production				RW Production		Total Capital Cost [e]	Total O&M Cost [f]	Total Capital Cost [e]	Total O&M Cost [f]	Total Capital Cost [e]	Total O&M Cost [f]	Total Capital Cost [e]	Total O&M Cost	Annualized Capital Cost	Annualized Total Cost [g]	Total Capital Cost [e]	Total O&M Cost	Annualized Capital Cost	Annualized Total Cost [g]
#	Description	Treatment Capacity [MGD]	Wet Season [MGD]	Dry Season [MGD]	[AFY]	Dry Season [MGD]	[AFY]	[$]	[$]	[$]	[$]	[$]	[$]	[$]	[$]	[$/AF]	[$/AF]	[$]	[$]	[$/AF]	[$/AF]
1	Baseline	0.77	0.55	N/A	250	0.32	210	$ 17,200,000	$ 366,000	$ 7,852,000	$ 167,000	$ 9,348,000	$ 199,000	$ 20,400,000	$ 823,000	$ 4,200	$ 7,500	$ 29,748,000	$ 1,022,000	$ 6,100	$ 10,200
2B	One Plant Solution	0.77	0.55	N/A	250	0.32	210	$ 7,600,000	$ 446,000	$ 3,470,000	$ 204,000	$ 4,130,000	$ 242,000	$ 23,700,000	$ 924,000	$ 4,800	$ 8,500	$ 27,830,000	$ 1,166,000	$ 5,700	$ 10,400
2C	One Plant Solution (MBR)	0.49	0.35	0.12	250	0.32	210	$ 9,400,000	$ 456,000	$ 4,291,000	$ 208,000	$ 5,109,000	$ 248,000	$ 13,800,000	$ 663,000	$ 2,800	$ 5,500	$ 18,909,000	$ 911,000	$ 3,900	$ 7,500
3A	Treatment at SC WWTF	1.01	0.81	0.38	620	0.32	210	$ 8,900,000	$ 462,000	$ 2,252,000	$ 117,000	$ 6,648,000	$ 345,000	$ 46,500,000	$1,634,000	$ 3,800	$ 6,400	$ 53,148,000	$ 1,979,000	$ 4,400	$ 7,600
3B	Purified Water from Chanticleer AWPF	1.02	0.81	0.81	910	N/A	N/A	$ 7,900,000	$ 391,000	N/A	N/A	$ 7,900,000	$ 391,000	$ 49,900,000	$2,208,000	$ 2,800	$ 5,200	$ 57,800,000	$ 2,599,000	$ 3,200	$ 6,100
3C	Maximize Reuse	3.55	2.53	2.18	2,600	0.32	210	$ 34,700,000	$ 820,000	$ 2,593,000	$ 61,000	$ 32,107,000	$ 759,000	$ 128,600,000	$5,070,000	$ 2,500	$ 4,500	$ 160,707,000	$ 5,829,000	$ 3,200	$ 5,400

Notes:

- Capital Cost includes escalation to mid point of construction of 2024 assumed for all alternatives (2% assumed over 4 years).
- Capital cost for tertiary treatment is distributed based on AF of RW production for district customers and cost of producing AF to supply tertiary effluent to the AWTF.
- O&M cost for tertiary treatment is distributed based on AF of RW production for district customers and cost of producing AF to supply tertiary effluent to the AWTF.
- For alternatives 3A, 3B and 3C, where additional purified water is produced (above 540 AFY), it is assumed there would be a revenue stream associated with selling additional AFY to SCWD, which would decrease annualized total cost for these alternatives

LOWEST COST ALTERNATIVES – OVERALL SCORE

- Lowest Capital and O&M Cost: Alternative 2C – One Plant Solution (MBR)
- Lowest Annualized Total Cost - Alternative 3C – Maximize Reuse

Alternatives Evaluation Criteria

ENGINEERING & OPERATIONAL CONSIDERATIONS

- Improve Water Supply
- Maximize Beneficial Reuse
- Constructability
- Operational Complexity

ECONOMIC:

- Cost Effectiveness
- Financial Implementability

ENVIRONMENTAL:

- Potential Environmental Impact
- Potential Environmental Enhancement

SOCIAL:

- Agency Coordination, Partnerships and Agreements
- Public Perception
- Local Disruption

Evaluation Criteria – Sensitivity Analysis

Categories	Alternatives Screening Criteria	Baseline (Balanced)	Maximize Water Supply	Maximize Benefitial Reuse	Maximize Engineering & Operational Considerations	Low Cost	Minimize Local Impacts
ENGINEERING & OPERATIONAL CONSIDERATIONS	Improve Water Supply	15%	40%	10%	5%	10%	10%
	Maximize Benefitial Reuse	10%	5%	30%	10%	5%	5%
	Ease of Implementations	10%	10%	10%	15%	5%	5%
	Operational Complexity	10%	10%	10%	35%	5%	5%
ECONOMIC	Cost Effectiveness	15%	5%	10%	5%	30%	5%
	Financial Implementability	15%	5%	5%	5%	30%	5%
ENVIRONMENTAL	CEQA Considerations	5%	5%	5%	5%	3%	20%
	Potential Environmental Enhancement	5%	5%	5%	5%	3%	15%
SOCIAL	Agency Coordination, Partnershiops and Agreements	5%	5%	5%	5%	2%	5%
	Public Perception	5%	5%	5%	5%	5%	5%
	Local Disruption	5%	5%	5%	5%	2%	20%
TOTAL		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Alternatives Scoring & Ranking

Alternative		Description	TOTAL: Total Raw Score (Max 51)	Baseline (Balanced)	Maximize Water Supply	Maximize Benefitial Reuse	Maximize Engineering & Operational Considerations	Low Cost	Minimize Local Impacts
		Categories							
		Alternatives Screening Criteria		SENSITIVITY RANKING					
Baseline	1	Baseline	31.9	5	6	5	5	5	4
Local Project	2B	One Plant Solution	34.4	4	5	3	3	4	2
	2C	One Plant Solution (MBR)	31.2	3	4	6	6	2	3
Regional Project	3A	Treatment at SC WWTF	33.3	2	2	2	2	3	5
	3B	Purified Water from Chanticleer AWPF	44.3	1	1	1	1	1	1
	3C	Maximize Reuse	30.0	6	3	4	4	6	6

1- Highest Ranked

6- Lowest Ranked

TOP RANKED ALTERNATIVE – OVERALL SCORE

- Alternative 3B – Purified Water from Chanticleer AWPF

Q & A

Thank you

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Kennedy Jenks

Supporting Maps

2017 SVWD GWRP|

Santa Margarita Groundwater Basin Recycled Water Groundwater Replenishment Program (GWRP) Facilities Planning Report (FPR) Recommended Alternative 3, where the APF facilities are located at the Scotts Valley El Pueblo Site and existing SVWD Wells 11A and 11B are repurposed for injection.

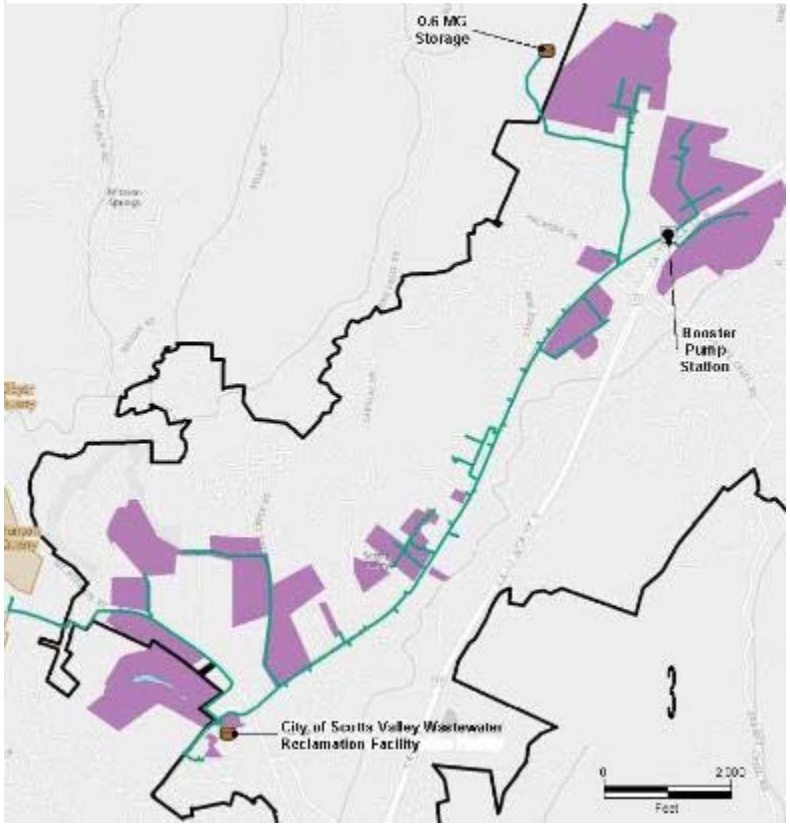
Source: KJ 2017

2017 SVWD GWRP|

The Scotts Valley El Pueblo Site, is the recommended location for an APF. The El Pueblo site has some existing infrastructure that can be reused, including reuse of existing SVWD Wells 11A and 11B for injection for the GWRP.

The potential new Tier 1 and 2 recycled water customers could increase non-potable demands from, the current 196 AFY up to approximately 291 AFY. The addition of the Pasatiempo Golf Course also increase demand for the secondary effluent by another 107 AFY based on the 2016 agreement between the City, SVWD, and Pasatiempo. (KJ 2017)

Customer Type	Number of Sites	Total Potential Ave Annual Demand AFY
Existing Irrigation Customers	51	196
Potential New Tier 1 & 2 Irrigation Customers	43	95
Subtotal, with New Tier 1&2 Irrigation Customers	86	291
Pasatiempo Golf Course (secondary effluent)	1	107
Total Potential Irrigation Customers	87	398
Groundwater Replenishment	1	Remaining Recycled Water



2017 SVWD Available RW Flows|

"The SVWD owns the rights to up to 1 MGD of recycled water from the City's WRF and provides approximately 200 AFY to meet customer demands, primarily in the dry summer season. Even with estimated moderate increases in non-potable recycled water use, there is from 460 to over 570 AFY of recycled water is estimated to be available, once treated through advanced purification, to recharge the SMGB" (KJ 2017)

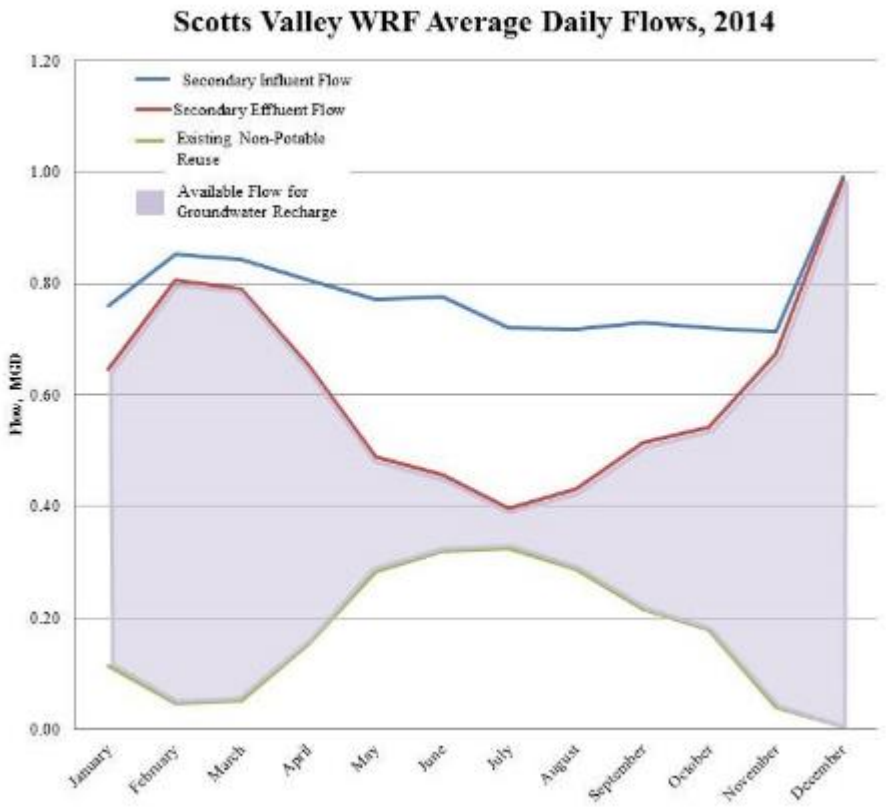


Table 1: Estimated Volume Available for Groundwater Replenishment

Year	Estimated Ave Wastewater Flow, AFY	Estimated RW Demands with Existing and Future Customers, AFY[a]	Estimated Available Non-Recycled Wastewater, AFY[b]	Estimated Advanced Purified Water for GWR, AFY[c]
2015	874	200	674	546 (459)
2020	892	210	682	553 (466)
2025	911	220	691	559 (473)
2030	929	230	699	566 (479)
2035	947	240	707	573 (486)

(a) From 2015 Urban Water Management Plan, Pasatiempo GC demand of 107 AFY is not included

(b) Pasatiempo GC demand of 107 AFY is not included

(c) Supply Available is estimated to be 80% of the Estimated Available Non-Recycled Wastewater Flow, based on an 80% efficiency through treatment processes. Estimated APW with 107 AFY of Pasatiempo GC needs met is in parentheses; 475 AFY of APW is used for economic calculations in Table 4 to account for meeting Pasatiempo GC needs.