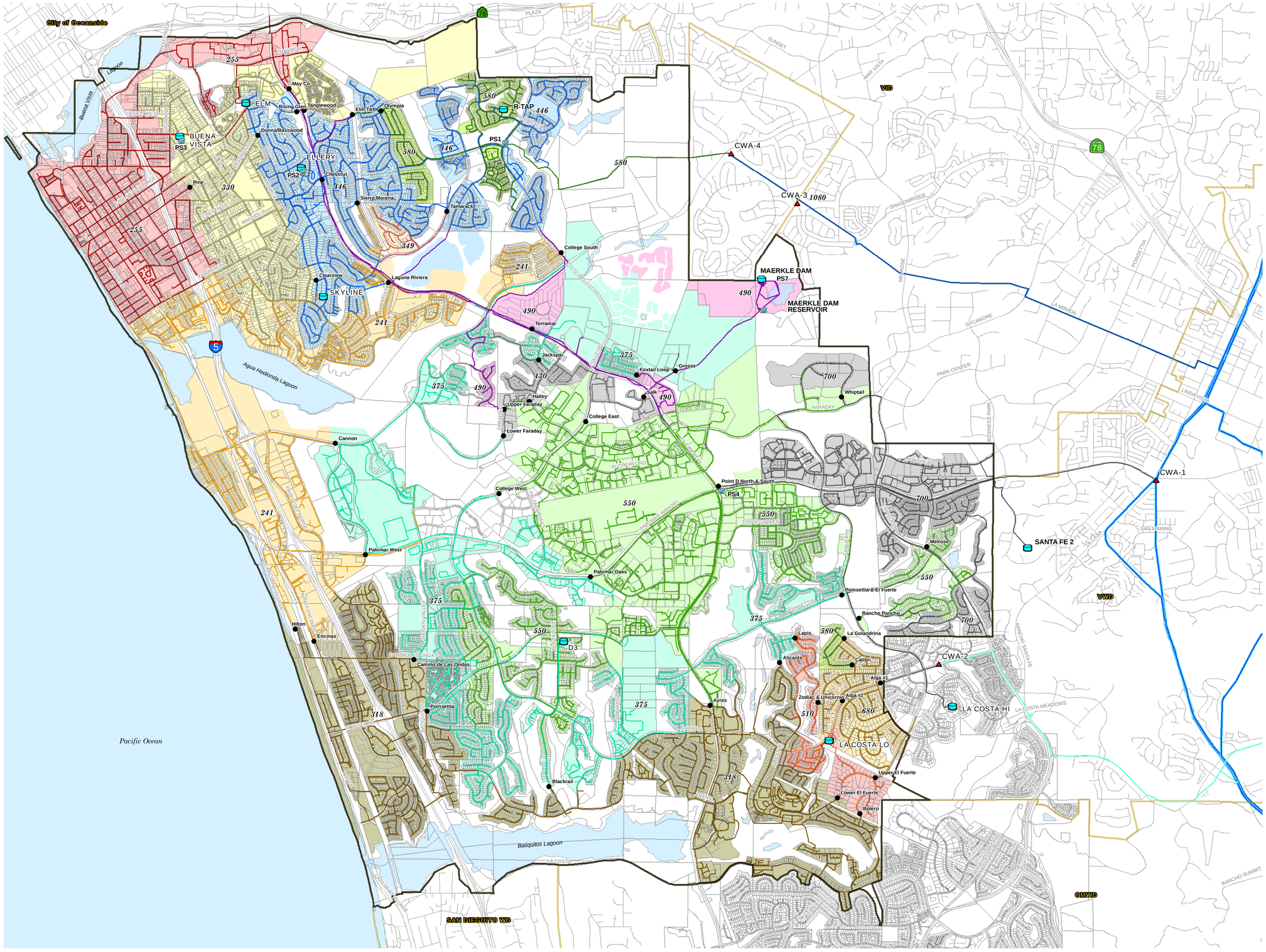

Existing Potable Water System

EXHIBIT A

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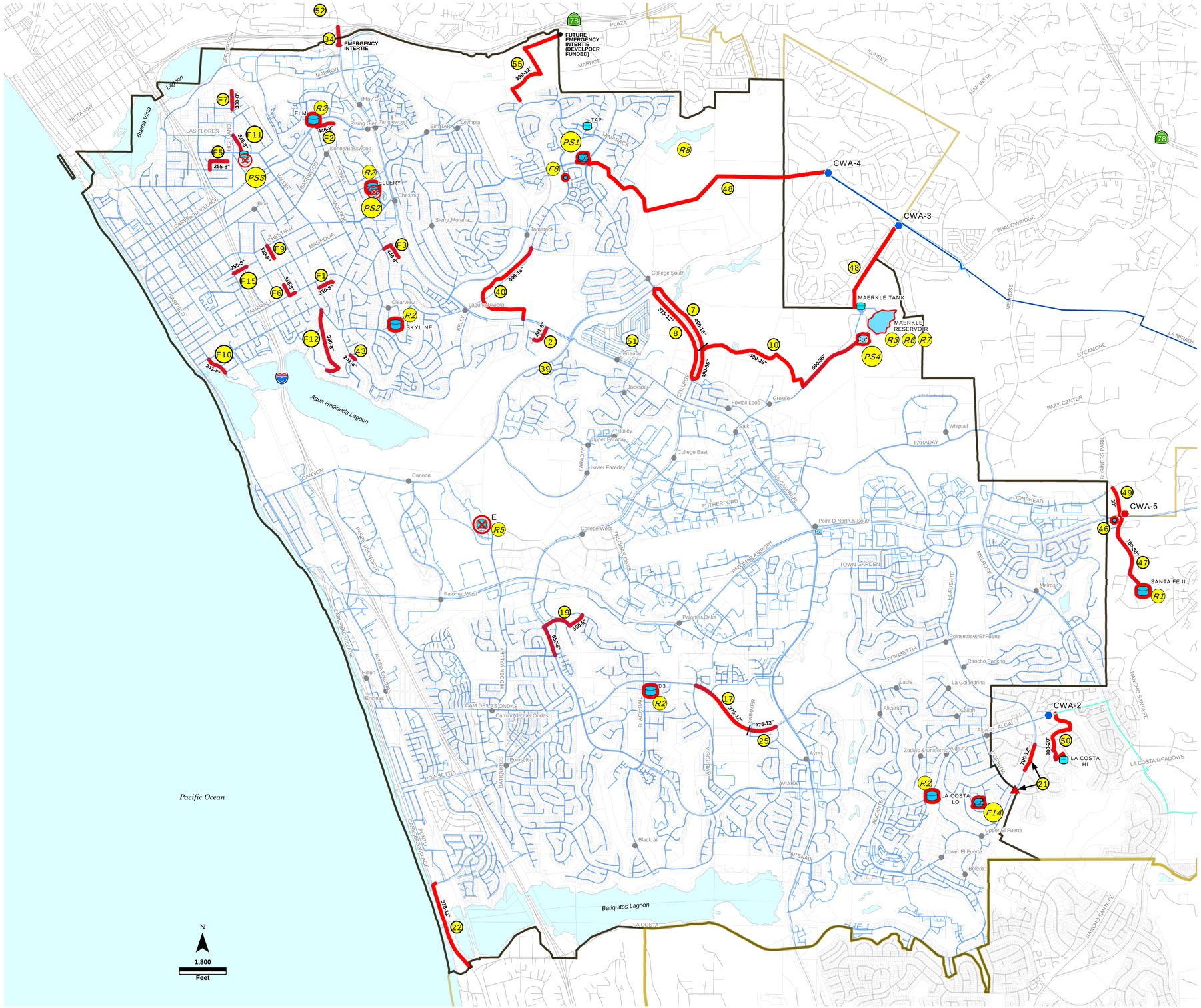

RECOMMENDED CMWD CAPITAL IMPROVEMENTS

ID No.	Zone	Project Type	Description/Location
F1	330	Pipeline Replacement	Replace 6" & 4" PL in Jeanne Pl. to end of cul-de-sac with 8" PL
F2	446	Pipeline Replacement	Replace 6" PL in Nob Hill Dr. to end of cul-de-sac with 8" PL
F3	446	Pipeline Replacement	Replace 6" PL in Holly Brae Ln & Alder Ave east of Skyline Dr. with 8" PL
F5	255	Pipeline Replacement	Replace 6" PL in Cynthia Ln & Gregory Dr from Knowles Av to cul-de-sac with 8" PL
F6	330	Pipeline Replacement	Replace 6" PL in Tamarack Av from Highland Dr west to Adair St, and in Adair St to cul-de-sac with 8" PL
F7	330	Pipeline Replacement	Replace 6" PL in Highland Dr. from Yourell Av to Ratcliff with 8" PL
F8	580	New Fire Hydrant Connection	Switch supply for Calavera Rec. Center hydrants from 580 to 446 Zone to obtain storage for increased reliability
F9	330	Pipeline Replacement	Replace 6" in Chestnut Av at Woodland Wy to end of Woodland with 8" PL
F10	241	Pipeline Replacement	Replace 6" PL in in Garfield from Chinquapin Ave to end with 8" PL
F11	330	Pipeline Replacement	Replace 6" in Arland Rd from Highland to Buena Vista Wy with 8" PL
F12	330	New Watermain	Install parallel pipeline in Highland Dr from Hillside Dr south to Adams street for fire flow & redundancy
F14	680	Emergency Pump	New emergency PS at Obelisco Pl/Cir to provide fire flow at 20 psi
F15	255	Pipeline Replacement	Replace 4" PL in Palm Av from Harding St. to Pio Pico Dr (jack pipe across I-5)
2	241	New Watermain	Parallel existing 8" PL in Crestview Dr south of El Camino Real for redundancy
7	490	New Watermain	16" PL in College Blvd from intersection with Cannon Rd south to 400' north of El Camino Real; 50% developer funded
8	375	New Watermain	12" PL in future College Blvd, from Cannon Rd south to Badger Ln; 50% developer funded
10	490	New Watermain	36" PL in easement across HMP Preserve from Maerkle Res to College Blvd for supply/redundancy (2003 CIP #s 10 & 11)
17	375	New Watermain	12" PL in Poinsettia Ln from Skimmer Ct to Cassia Rd for looping & D3 Res supply
19	550	New Watermain	8" PL in Avara Pkwy at Plum Tree north to Mariposa St, then east to Sapphire Dr. for redundancy
21	700	New PRS & Watermain	PRS at El Fuerte/Corintia & 12" PL in El Fuerte north of Corintia for redundant supply to Zones 680, 580S & 510
22	318	New Watermain	12" PL in Carlsbad Blvd from Avenida Encinas south to CMWD boundary for redundancy & SDWD interconnection
25	375	New Watermain	12" PL in Poinsettia Ln, from El Camino Real to Skimmer Ct for supply/redundancy
34	255	Interconnect Upgrade	Replacement of valves, pipe, and meter for the Oceanside Intertie at ECR/SH78
38	--	Corrosion Control	Design & construct PL corrosion control improvements - multiple locations
39	--	New PRS or Watermain	New PRS or 241 Zone pipeline to reduce pressures in Kelly Ranch Village "E"
40	446	New Watermain	16" main through Robertson Ranch to replace the "B" line; CMWD pays for upsizing from 12" to 16"

ID No.	Zone	Project Type	Description/Location
41	--	Misc Valve Replacements	Repair/replace broken valves at various locations
43	241	Pipeline/Road Replacement	Replace failed PL & repair roadway in Park Dr. from Adams to 200' south of Cove Dr.
44	--	PRS Rehab	Assess & repair or upgrade 5 PRSs
45	--	New Interties	Construct 4 new interties with adjacent water agencies for emergency supply
46	--	Hydroelectric Energy	Move CWA #1 PRS downstream near CMWD boundary & Install hydroelectric turbines
47	700	Water Quality	New 30" inlet PL to Santa Fe II Tank (portion of alignment crosses open space)
48	--	Water Supply	Replace or rehab TAP between 1) CWA #3 & Maerkle Res and 2) CWA #4 and 580 Zone at College Blvd
49	--	Water Supply	CWA #5 connection and 30" PL in Business Park Dr. for direct delivery of desalinated seawater
50	--	Water Quality	New 20" inlet PL to La Costa Hi Tank from CWA#2 to create separate tank inlet/outlet
51	--	Groundwater Supply	Rancho Carlsbad well water supply facilities
53	--	Water MP Update	2012 Water Master Plan update
52	--	Groundwater Supply	New facilities to produce, treat, and deliver groundwater to CMWD from the Mission Basin of the San Luis Rey River.
54	--	Watermain Relocations	Remove/replace PLs in easements and relocate meters; multiple locations
55	330	Water Supply	12" PL within Quarry Creek from future intertie with Oceanside to 14" PL in Tamarack Av; CMWD pays for upsizing from 8" to 12"
56	--	Pipeline Replacement	Miscellaneous Pipeline replacement projects
PS1	580	PS Upgrades	Install standby generator, hydropneumatic tank & jockey pump at Calavera PS
PS2	446	PS Decommission	Abandon and remove Ellery PS & construct facilities to accommodate a portable PS
PS3	330	PS Decommission	Abandon and remove Buena Vista PS and 10,000 gallon forebay tank
PS4	490	PS Upgrades	Increase capacity of the Maerkle PS to supply the District's ADD from the reservoir
R1	700	Tank Rehabilitation	Santa Fe II - Drainage system and crib wall repairs
R2	--	Steel Tank Rehabilitation	New exterior/interior coating & misc appurtenance repairs/replacement at Elm, Skyline, La Costa Lo, Ellery & D3 Tanks
R3	--	Reservoir Rehabilitation	Replace floating cover for Maerkle Reservoir
R4	--	Tank Rehabilitation	Miscellaneous concrete reservoir upgrades, multiple locations
R5	264	Tank Decommission	Remove or relocate "E" tank from site
R6	490	Hydroelectric Energy	New hydroelectric PRS at Maerkle Reservoir
R7	490	Reservoir Rehabilitation	Miscellaneous facility improvements at Maerkle Reservoir.
R8	--	Reservoir Rehabilitation	Lake Calavera - replacement of outlet tower valves & piping; re-grade reservoir bottom

- Carlsbad MWD
- Water District Boundary
- Existing Tank
- Existing Pump Station
- Water Authority 2nd Aqueduct
- Tri-Agencies Pipeline (TAP)
- Questhaven Potable Pipeline
- Existing Pipeline
- Existing Water Authority Connection
- Future Desal Connection
- Pressure Regulating Valve

Recommended Improvement Project

- CIP Pipeline Project
- New Pump Station
- Improvement to Existing Pump Station
- Improvement to Existing Reservoir
- Miscellaneous Facility
- New PRV

CMWD
RECOMMENDED CAPITAL IMPROVEMENT PROJECTS

EXHIBIT B

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