

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
Adopted Policy for Serving the Growth of the Community
August 2005

The growth of the population in the VVWRA Service Area and the resulting increase in the quantity of wastewater generated will be served by a combination of the existing Regional Treatment Plant working in conjunction with a number of appropriately located Subregional Reclamation Facilities, interconnected by the Regional Interceptor Sewer System. The construction of these facilities will be financed by VVWRA using a combination of sewer connection fees, State Revolving Fund (SRF) loans, grants, and municipal bonds such as Certificates of Participation (COP's). Connection fees generated by new and/or expanded sewer connections in the Service Area will be collected by the Member Entities and retained by VVWRA, and the fees will be used to meet construction and/or debt service requirements. The appropriate rate structure for sewer connection fees will be determined by the Board of Commissioners based on the projects and the schedule described in a Capital Improvement Plan, which will be prepared for the Board and approved and adopted by the Commissioners at a later date.

To meet immediate needs between today and 2012, the Regional Treatment Plant and the Interceptor Sewer System will be expanded to convey and treat up to 18 million gallons per day (MGD) of wastewater. Additional relief sewers, peak flow pumping facilities, off-line storage, or a combination of these facilities will be needed to convey the anticipated wastewater flow to the Regional Treatment Plant. Subregional Reclamation Facilities will be constructed and will begin operating between now and 2012 in the Town of Apple Valley and in the City of Hesperia, and these subregional reclamation facilities will be sized and configured to capture all of the wastewater generated by the respective cities for reclamation and beneficial reuse. Using this combination of regional treatment and subregional reclamation facilities, the wastewater generated by the City of Victorville and the communities of Oro Grande (CSA 42) and Spring Valley Lake (CSA 64) will be conveyed to the Regional Treatment Plant for processing. Solids generated by the subregional facilities may be discharged back into the regional interceptor system with a small transport flow for treatment by the Regional Treatment Plant and eventual disposal. Recycled water produced by the subregional reclamation facilities may be discharged to one or more remotely located percolation basins during wet weather periods, when irrigation demands are minimal. To meet this goal, one large subregional or possibly two smaller subregional reclamation facilities may be required in both Apple Valley and Hesperia, the selection and siting of which will be determined by the Board of Commissioners based on future engineering, environmental, and economic studies.

To meet future needs anticipated between the years 2012 and 2020, the capacity of the subregional reclamation facilities, sewage and recycled water pumping stations, and remotely located wet weather percolation ponds will be expanded so that all of the wastewater generated by the Town of Apple Valley and the City of Hesperia is captured for reclamation and beneficial reuse. The only exception will be the solids generated by the respective subregionals, along with a small amount of sewage flow if needed to transport the solids to the Regional Treatment Plant for processing. During this period additional subregional reclamation facilities may be constructed to capture and reclaim excess flows generated in outlying areas such as western Victorville, as determined by the Board of Commissioners based on future engineering, environmental, and economic studies.

To meet long term needs anticipated after the year 2020, the capacity of the Regional Treatment Plant and the Interceptor Sewer System will be expanded to convey and treat the additional

wastewater generated by the City of Victorville, Oro Grande, and Spring Valley Lake. Based on current population growth projections, it is anticipated that by 2020 the capacity of the Regional Treatment Plant will need to be expanded to 22 MGD or more to meet the needs of the City of Victorville, Oro Grande, and Spring Valley Lake. In addition, the construction of expanded solids handling capacity may be necessary at the Regional Treatment Plant to match the increasing solids generated by the Apple Valley and Hesperia subregional facilities. During this period additional subregional reclamation facilities may be constructed to capture and reclaim excess flows generated in newly developed and/or outlying areas, as determined by the Board of Commissioners based on future engineering, environmental, and economic studies.

To meet short term and long term anticipated needs, the Board of Commissioners may also acquire properties suitable for future expansions of the regional treatment plant, and new or expanded subregional reclamation facilities, pumping systems, distribution systems, percolation ponds, or support facilities such as offices, storage, and maintenance buildings.

Approved and Adopted by the VVWRA Board of Commissioners on August 1, 2005.

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
Adopted Capital Improvement Plan for Serving the Growth of the Community
September 2005

REGIONAL TREATMENT PLANT EXPANSION

The wastewater generated by the City of Victorville and the communities of Oro Grande (CSA 42) and Spring Valley Lake (CSA 64) will be conveyed to the Regional Treatment Plant for processing. The Regional Treatment Plant will be expanded to an overall capacity of 14.5 MGD, with construction beginning in 2005 and ending in 2007. The Regional Treatment Plant will then be expanded to an overall capacity of 18 MGD, with construction beginning in 2006 and ending in 2008. Additional property will be acquired in 2011-2012 to prepare for a further expansion of the Regional Treatment Plant.

The Regional Treatment Plant will then be expanded to an overall capacity of 22 MGD, with construction beginning in 2018 and ending in 2020. The Regional Treatment Plant will then be expanded to an overall capacity of 30 MGD, with construction beginning in 2023 and ending in 2025.

REGIONAL INTERCEPTOR SEWER EXPANSION

The interceptor modeling study will be completed in 2005, which will evaluate the system's ability to convey flow, and the improvements necessary to meet flow needs. The capacity of the Regional Interceptor Sewer System will be expanded to convey up to 18 million gallons per day (MGD) of wastewater to the Regional Treatment Plant, with phased construction to begin in 2005 and ending in 2012. The expansion will include the construction of relief sewers, and the replacement of the Upper Narrows Pump Station to convey peak flows around the Upper Narrows Interceptor.

The capacity of the Regional Interceptor Sewer System will then be expanded to convey up to 22 million gallons per day (MGD) of wastewater to the Regional Treatment Plant, with construction to begin in 2017 and ending in 2018. The interceptor modeling study will be updated in 2020, which will evaluate the system's ability to convey flow, and the improvements necessary to meet flow needs.

SUBREGIONAL RECLAMATION FACILITIES

The Subregional Public Relations Program will expand school outreach programs in FY 2005-2006, and the program will continue each year through 2012. Subregional Reclamation Facilities will be constructed in order to capture and recycle all of the wastewater generated in the Town of Apple Valley and in the City of Hesperia. Property for future subregional facilities at the Upper Narrows and in West Victorville will be purchased in 2006.

A 4.0 MGD subregional reclamation facility will be constructed in Apple Valley near Brewster Park, with construction to begin in 2007 and ending in 2009. A 4.0 MGD subregional reclamation facility will be constructed in Hesperia near I-15 and Main Street, with construction to begin in 2007 and ending in 2009. Solids generated by both subregional facilities will be discharged back into the regional interceptor system, with a small transport flow for treatment at the Regional Treatment Plant. Recycled water produced by the subregional reclamation facilities will be

discharged to remotely located percolation basins during wet weather periods, when irrigation demands are minimal. Distribution piping will be constructed for each subregional facility to convey recycled water to major customers and/or purveyor points of connection, and to the remotely located percolation basins.

A sewage pumping station and force main system will be constructed to convey wastewater from the foot of the Desert Knolls Wash to the Apple Valley Subregional Facility, with construction to begin in 2009 and ending in 2010. A sewage pumping station and force main system will be constructed to convey wastewater from the Hesperia Interceptor at Bear Valley Road to the Hesperia Freeway Corridor Subregional Facility, with construction to begin in 2009 and ending in 2010.

A second Hesperia subregional will be constructed in the vicinity of the Mojave River, with construction beginning in 2014 and ending in 2016. The Hesperia Mojave River Subregional will have a capacity of 4.0 MGD. One of Hesperia's subregional facilities will be expanded to 8 MGD overall capacity, with construction beginning in 2024 and ending in 2026. The 2026 expansion will increase Hesperia's total subregional capacity to 12 MGD.

The Apple Valley Brewster Park Subregional Reclamation Facility will be expanded to an overall capacity of 8.0 MGD, with construction beginning in 2017 and ending in 2019.

OTHER CAPITAL IMPROVEMENT PROJECTS

The SCLA Reclaimed Water Pumping System will be constructed at the Regional Treatment Plant in 2005. The emergency generators will be interconnected with SCE and used for peak shaving beginning in late 2005 or early 2006. A dump truck will be purchased for the Regional Treatment Plant in 2006. A new Administration Building will be constructed at a site to be determined, with construction to begin in 2010 and end in 2011. Additional pipe will be purchased for emergency preparedness, and a storage building for the pipe and related equipment will be constructed in 2010-2011.

Approved and Adopted by the VVWRA Board of Commissioners on September 19, 2005.

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
Capital Improvement Plan: 2005-2025
List of Improvements, Schedule, and Estimated Cost

Project No.	Capital Improvement Description	Initiation Date	Completion Date	Estimated Cost
1	Regional Plant 14.5 MGD Expansion Construction Project	2005	2007	\$ 25,000,000
2	Regional Plant 18 MGD Expansion Design/CEQA	2005	2005	\$ 1,023,781
3	SCLA Reclaimed Water Pumping System Construction	2005	2005	\$ 239,000
4	SCLA Reclaimed Water Pipeline Construction	2005	2005	\$ 286,479
5	Subregional PEIR, Planning Study, & Public Relations Program, FY 2005-2006	2005	2006	\$ 238,223
6	Interceptor Capacity Modeling Study	2005	2005	\$ 112,852
7	Interconnection with SCE for Peak Shaving	2005	2005	\$ 45,000
8	Interceptor System Relief Sewer Phase I Design/CEQA/Permitting	2005	2006	\$ 437,661
9	Upper Narrows Pump Station Design/CEQA/Permitting	2005	2006	\$ 312,500
10	Interceptor System Relief Sewer Phase I Construction Project	2006	2006	\$ 1,750,644
11	Interceptor System Relief Sewer Phase II Design/CEQA/Permitting	2006	2006	\$ 44,888
12	Purchase Dump Truck	2006	2006	\$ 45,000
13	Subregional Public Relations Program, FY 2006-2007	2006	2007	\$ 100,000
14	Apple Valley Brewster Park 4 MGD Subregional Design/CEQA/Permitting	2006	2007	\$ 1,250,000
15	Apple Valley Brewster Park 4 MGD Subregional Property Acquisition	2006	2007	\$ 250,000
16	Hesperia Freeway Corridor 4 MGD Subregional Design/CEQA/Permitting	2006	2007	\$ 1,250,000
17	Hesperia Freeway Corridor 4 MGD Subregional Property Acquisition	2006	2007	\$ 250,000
18	Upper Narrows Subregional CEQA/Property Acquisition (40 acres)	2006	2007	\$ 850,000
19	Western Victorville Subregional CEQA/Property Acquisition (5-10 acres)	2006	2007	\$ 600,000
20	Upper Narrows Pump Station Construction Project	2006	2007	\$ 1,250,000
21	Interceptor System Relief Sewer Phase II Construction Project	2006	2007	\$ 179,550
22	Regional Plant 18 MGD Expansion Construction Project	2006	2008	\$ 20,000,000
23	Interceptor System Relief Sewer Phase III Design/CEQA/Permitting	2007	2007	\$ 113,573
24	Subregional Public Relations Program, FY 2007-2008	2007	2008	\$ 100,000
25	Apple Valley Desert Knolls Sewage Pumping & Force Main System CEQA/Property Acquisition	2007	2008	\$ 500,000
26	Hesperia I Avenue Sewage Pumping & Force Main System CEQA/Property Acquisition	2007	2008	\$ 500,000
27	Interceptor System Relief Sewer Phase III Construction Project	2007	2008	\$ 454,293
28	Apple Valley Brewster Park 4 MGD Subregional Construction Project	2007	2009	\$ 25,000,000
29	Hesperia Freeway Corridor 4 MGD Subregional Construction Project	2007	2009	\$ 25,000,000
30	Interceptor System Relief Sewer Phase IV Design/CEQA/Permitting	2008	2008	\$ 86,987
31	Subregional Public Relations Program, FY 2008-2009	2008	2009	\$ 100,000
32	Apple Valley Desert Knolls Sewage Pumping & Force Main System Design	2008	2009	\$ 750,000
33	Hesperia I Avenue Sewage Pumping & Force Main System Design	2008	2009	\$ 750,000
34	Interceptor System Relief Sewer Phase IV Construction Project	2008	2009	\$ 347,949
35	Interceptor System Relief Sewer Phase V Design/CEQA/Permitting	2009	2009	\$ 78,199
36	Subregional Public Relations Program, FY 2009-2010	2009	2010	\$ 100,000
37	Apple Valley Desert Knolls Sewage Pumping & Force Main System Construction	2009	2010	\$ 5,000,000
38	Hesperia I Avenue Sewage Pumping & Force Main System Construction	2009	2010	\$ 5,000,000
39	New Administration Building Design	2009	2010	\$ 250,000
40	Interceptor System Relief Sewer Phase V Construction Project	2009	2010	\$ 312,795
41	Interceptor System Relief Sewer Phase VI Design/CEQA/Permitting	2010	2010	\$ 36,855
42	Subregional Public Relations Program, FY 2010-2011	2010	2011	\$ 75,000
43	New Administration Building Construction Project	2010	2011	\$ 2,500,000
44	Interceptor System Relief Sewer Phase VI Construction Project	2010	2011	\$ 147,420
45	Emergency Preparedness Facilities, Pipe & Storage Bldg	2010	2011	\$ 75,000
46	New Administration Building Furniture & Equipment	2011	2011	\$ 750,000
47	Interceptor System Relief Sewer Phase VII Design/CEQA/Permitting	2011	2011	\$ 240,629
48	Subregional Public Relations Program, FY 2011-2012	2011	2012	\$ 50,000
49	Regional Plant Expansion CEQA/Property Acquisition	2011	2012	\$ 1,500,000
50	Interceptor System Relief Sewer Phase VII Construction Project	2011	2012	\$ 962,514
51	Hesperia Mojave River 4 MGD Subregional Design/CEQA	2013	2014	\$ 1,500,000
52	Hesperia Mojave River 4 MGD Subregional Construction	2014	2016	\$ 25,000,000
53	Apple Valley Brewster Park 8 MGD Subregional Expansion Design/CEQA	2016	2017	\$ 1,500,000
54	Apple Valley Brewster Park 8 MGD Subregional Expansion Construction	2017	2019	\$ 25,000,000
55	Interceptor System Relief Sewer Phase VIII Design/CEQA/Permitting	2017	2017	\$ 305,644
56	Interceptor System Relief Sewer Phase VIII Construction Project	2017	2018	\$ 1,222,578
57	Regional Plant 22 MGD Expansion Design/CEQA	2017	2018	\$ 1,500,000
58	Regional Plant 22 MGD Expansion Construction Project	2018	2020	\$ 25,000,000
59	Interceptor Capacity Modeling Study, 2020 Update	2020	2021	\$ 150,000
60	Regional Plant 30 MGD Expansion Design/CEQA	2022	2023	\$ 2,000,000
61	Hesperia 4 MGD Subregional Expansion Design/CEQA	2023	2024	\$ 1,500,000
62	Regional Plant 30 MGD Expansion Construction	2023	2025	\$ 30,000,000
63	Hesperia 4 MGD Subregional Expansion Construction Project	2024	2026	\$ 25,000,000
GRAND TOTAL				\$ 265,975,014

Note: All costs shown are in 2005 dollars.