

City of Beaumont
Attachment "A" to the Environmental Information Form
Accompanying the Petition for Change

The City of Beaumont (City) is proposing to reduce its discharge of tertiary treated effluent to Coopers Creek from 1.8 mgd to not below 0.8 mgd and to add two additional points of discharge to streams in the Beaumont Management Zone (BMZ). The City is proposing these revisions for partial compliance with its maximum benefit requirement to minimize discharge to San Timoteo Creek and the San Timoteo Management Zone (STMZ).

Background

The Beaumont-Cherry Valley Water District (District) obtained permission from the State Water Resources Control Board¹ (SWRCB) and the US Fish and Wildlife Service (USFWS) for the City to reduce its discharge of tertiary treated effluent to Coopers Creek from approximately 2.5 mgd to 1.8 mgd. Based on information provided by the District, the USFWS believes that the discharge of 1.8 mgd will support riparian habitat in Coopers Creek. The District plans to divert recycled water in excess 1.8 mgd to meet irrigation demands in its service area.

The District began constructing its non-potable distribution system in 2006, and the majority of the system has been completed. Before the District can begin serving recycled water to its non-potable customers, several key pieces of the system must be built, including several segments of non-potable transmission pipeline, two non-potable reservoirs, and a pump station at the City's wastewater treatment plant (WWTP) to boost recycled water throughout the District's service area. The District obtained a State Revolving Fund (SRF) grant and loan through the SWRCB to fund the completion of its non-potable system. Shortly after receiving confirmation from the State that its SRF grant and loan application had been approved, the District was notified that the funding of its SRF grant and loan was put on hold due to the State budget crisis. The District remains optimistic that once the State begins funding SRF grant and loan projects again, it will receive funding. With this delay, the District estimates that the completion of its non-potable system could take several years.

The City is obligated by the maximum benefit requirements in the Basin Plan to reduce its discharge to San Timoteo Creek such that it is not contributing to total dissolved solids (TDS) and nitrogen degradation in the STMZ.

¹The SWRCB approved the reduction in discharge to Coopers Creek. During the District's SRF grant and loan approval process, the SWRCB requested additional information from the District, describing the source water for its non-potable system. In its response to the SWRCB, the District stated that the source water for its non-potable system would be recycled water from the City's WWTP above 1.8 mgd and provided the letter from the USFWS. The SWRCB accepted the response and ultimately approved the District's application to complete its non-potable system. The letter from the USFWS is provided as Attachment H.

Figure 1 shows the location of the City's WWTP, existing and proposed points of discharge, the creek system, and management zone boundaries. Coopers Creek is a small tributary of San Timoteo Creek. Its confluence with San Timoteo Creek occurs near where both creeks enter the STMZ. The drainage area of Coopers Creek is about 3.8 square miles. In contrast, the drainage area of San Timoteo Creek, upstream of this confluence, is about 24.9 square miles or about 6.5 times greater. From the Coopers Creek confluence, San Timoteo Creek flows about 12 miles across the STMZ before crossing into the Bunker Hill B Management Zone. From there, San Timoteo Creek flows about 5 miles further before reaching its confluence with the Santa Ana River.

Under dry-weather conditions, discharge from the City's WWTP to Coopers Creek flows over the Beaumont South Basin (part of the BMZ) without contributing to groundwater recharge. Shallow groundwater and hydrogeologic constraints underlying Coopers Creek rejects the recharge of surface discharge. Upon entering the STMZ, surface discharge gradually declines over about six miles, and the creek is often dry just upstream of the YVWD point of recycled water discharge, indicating that surface discharge completely infiltrates the STMZ under most dry-weather conditions. Furthermore, the inorganic chemistry of the discharge changes in this reach, indicating that the discharge contains both native groundwater and recycled water. Below the YVWD point of discharge, surface discharge declines but ultimately reaches the confluence with the Santa Ana River.

Table 1 and Figure 2 illustrate the City's historical recycled water discharge to Coopers Creek from 1972 to present. In 1972, the discharge was only 0.1 mgd or about 113 acre-ft/yr. By 1990, almost 20 years later, recycled water discharge grew to 1.0 mgd. By 2005, it had grown to 1.8 mgd, and by 2007, it reached 2.6 mgd. Currently, discharge ranges between 2.4 and 2.5 mgd and should remain within this range for the next few years while the housing slump and general economic downturn run their courses. With its current NPDES permit, the City is allowed to discharge up to 4.0 mgd of tertiary treated effluent to Coopers Creek.

Project Description

Per its maximum benefit commitments, as specified by the 2004 Basin Plan Amendment (Regional Board Resolution R8-2004-0001), the City must remove/reduce its effluent from San Timoteo Creek (see Attachment I). In order to achieve partial maximum benefit compliance, the City proposes to reduce its discharge to Coopers Creek to the minimum rate and volume necessary to support riparian resources, thereby diminishing the volume of recycled water that enters the STMZ. Determining the exact rate and volume of discharge necessary to support the existing riparian resources is part of this project. As

such, the City has retained a consultant to conduct a biological study of Coopers and San Timoteo Creeks. The City will provide this study to SWRCB in the coming months.

In addition, because of the delays in the completion of the District's non-potable system, the City proposes to add two additional points of discharge within the BMZ. These two new discharge points are shown in Figure 1 as DP007 and DP008.

The first new discharge point (DP007 in Figure 1) is on an un-named tributary of Marshall Creek. The City proposes to discharge varying amounts of recycled water up to 0.45 mgd to support a *streambed restoration project*. Recycled water that is not consumed by riparian vegetation will completely and incidentally recharge through the streambed into the BMZ. The City completed CEQA documentation for this project and adopted a negative declaration on April 7, 2009 (Attachment B) .

The second new discharge point (DP008 in Figure 1) is on Noble Creek just below its confluence with the Mountain View Channel. The City proposes to discharge varying amounts of recycled water—the exact amount being equal to the total volume of recycled water produced by the City's WWTP minus the discharge to Coopers Creek (DP001) and the recycled water supplied to the discharge point on the un-named tributary of Marshal Creek (DP007). The theoretical maximum discharge to Noble Creek would be 3.2 mgd. Recycled water that is not consumed by riparian vegetation will completely and incidentally recharge through the streambed into the BMZ. The City will complete the CEQA process for this proposed discharge point within the next few months.

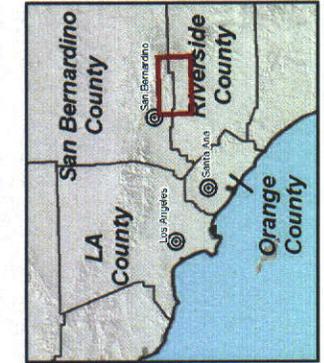
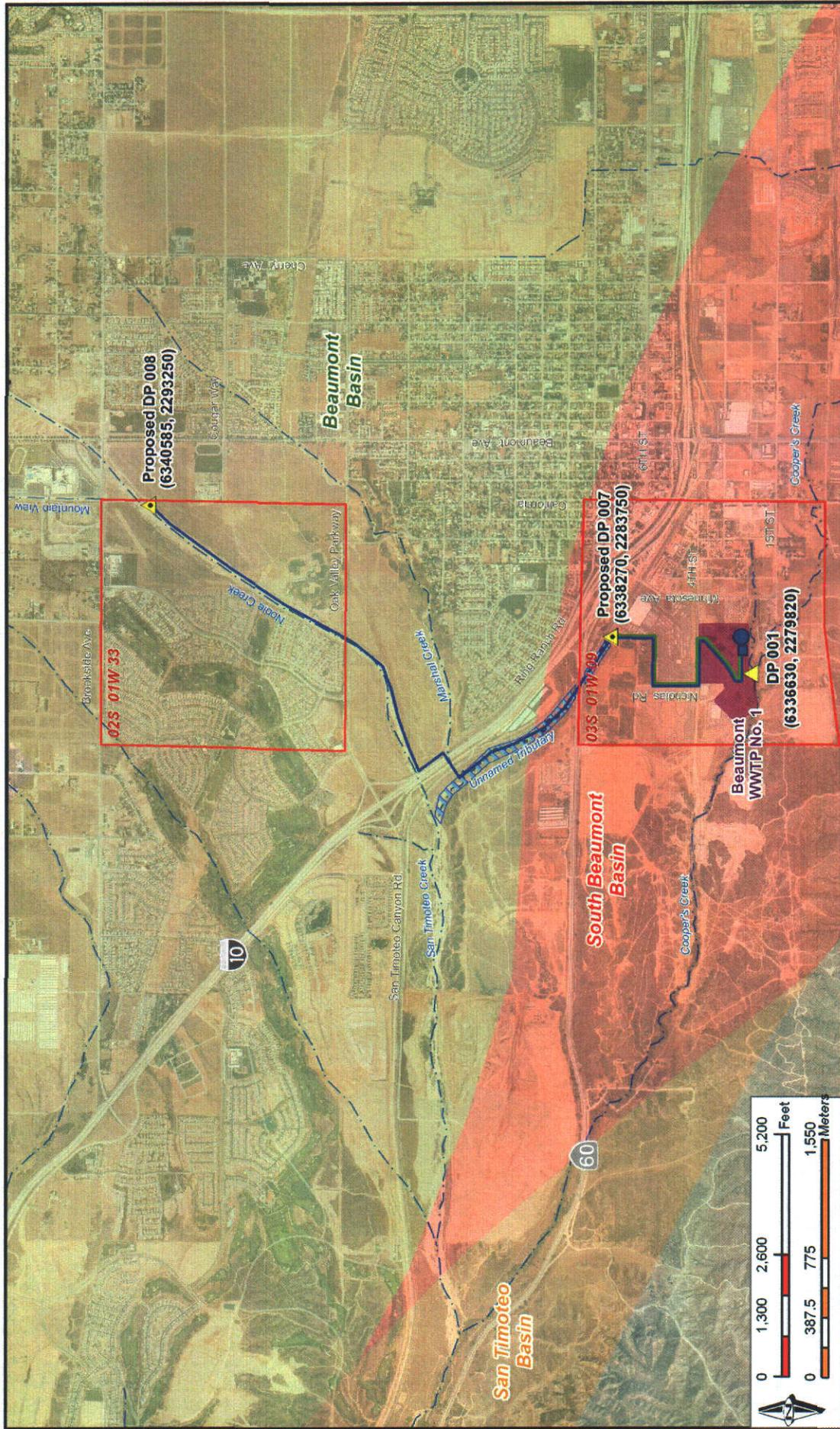
The facilities required to convey the City's recycled water to the proposed points of discharge include a storage reservoir and pump station, both of which will be located at the City's WWTP site. Recycled water will be conveyed to DP007 through a 10-inch pipeline and discharged through an outlet that is similar to the City's existing outlet in Coopers Creek. Recycled water will be conveyed to DP008 through an 18-inch pipeline and discharged through an outlet that is also similar to the City's existing outlet in Coopers Creek. Figure 1 illustrates the proposed pipeline locations.

Upon the completion of the District's non-potable distribution system, the City will begin serving recycled water to the District to meet direct irrigation demands. The City will prioritize its supply of recycled water to meet the riparian demands in both Coopers Creek and the un-named tributary with the balance going to either the District's non-potable system or Noble Creek.

Table 1
Historic and Projected Beaumont Recycled Water
Discharges to Cooper's Creek

Year	Discharge	
	(mgd)	(acre-ft/yr)
1972	0.10	113
1973	0.44	488
1974	0.53	592
1975	0.52	583
1976	0.55	612
1977	0.53	590
1978	0.56	633
1979	0.60	675
1980	0.62	692
1981	0.62	693
1982	0.63	703
1983	0.65	733
1984	0.73	812
1985	0.75	835
1986	0.75	835
1987	0.80	895
1988	0.86	965
1989	0.94	1,048
1990	0.99	1,105
1991	1.01	1,128
1992	1.04	1,161
1993	1.05	1,173
1994	1.03	1,158
1995	1.08	1,208
1996	1.13	1,268
1997	1.16	1,302
1998	1.21	1,357
1999	1.22	1,369
2000	1.23	1,378
2001	1.24	1,388
2002	1.31	1,471
2003	1.46	1,641
2004	1.66	1,858
2005	1.79	2,008
2006	2.00	2,237
2007	2.60	2,910
2008	2.55	2,857
2009	2.55	2,857
2010	0.80	896
2011	0.80	896
2012	0.80	896
2013	0.80	896
2014	0.80	896

Sources: City of Beaumont and the Santa Ana River Watermaster



Author: MJC Date: 20090410 File: 20090410_Figure_3.mxd

Scale 1:36,000
CCS83 Zone 6

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Petition for Change
Discharge Location Map

-  Existing Point of Discharge for the Beaumont WWTP No. 1 (Easting, Northing)
-  Proposed Discharge Points for the Beaumont WWTP No. 1 (Easting, Northing)
-  Proposed 18-inch Non-Potable Pipeline
-  Proposed 10-inch Non-Potable Pipeline
-  Proposed Booster Station
-  Rivers/Streams
-  Streambed Restoration Project

Figure 1

Figure 2 Historical and Projected Discharge to Cooper's Creek

