

Los Angeles River Upper Reach 2 Watershed Management Program (WMP) Plan Revisions

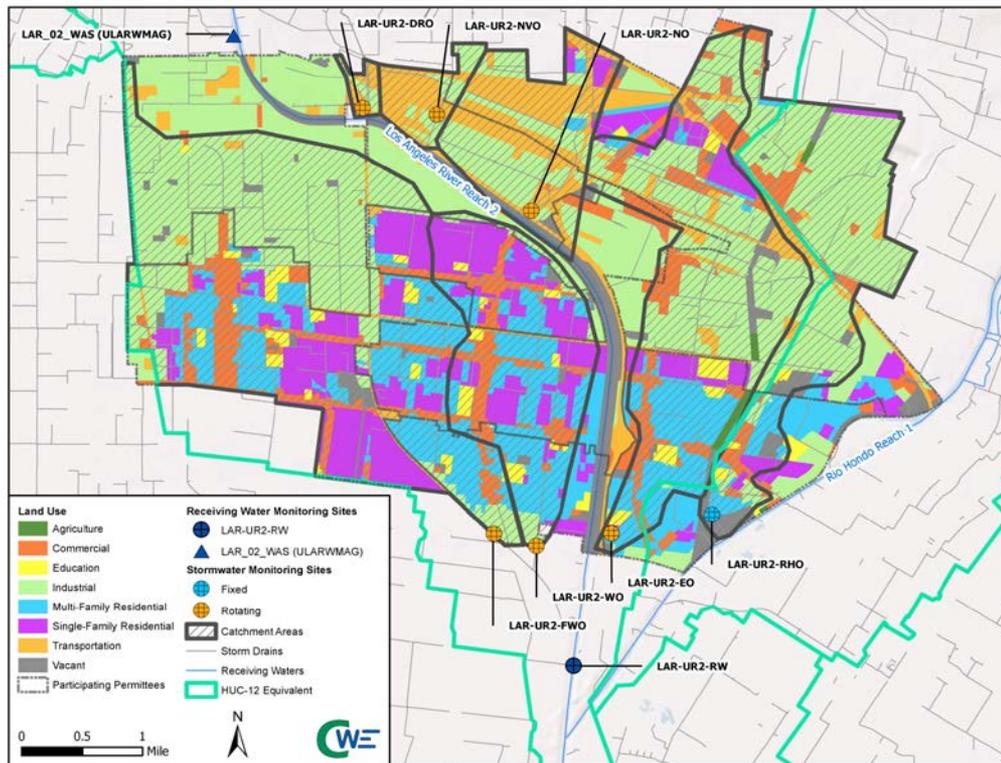
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Public Meeting**

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LAR UR2 WMA Specifics

- Industrial/Commercial/Transportation Areas (Permits within Permits)
- Several small DAC communities: more multi, than single family areas
- CIMP, nearly 80% of tributary area monitored at outfalls each year
- WMP: 6 Regional BMPs (\$210M) and LID/Green Street Needs (\$90M)



SB-PAT RAA Model Inputs

- Current model uses only 8 land use categories for pollutant load data
- No logical way to incorporate 35/161 SMARTS Industrial Permit data a
- SMARTS data rarely matches impairments, is variable, has limitations
- Must use surrogates pollutants for pH, Cr & Ni, TN, *E. coli* load data

Table 4-1 SBPAT RAA EMCs - Arithmetic Estimates of the Lognormal Summary Statistics

Land Use	TSS (mg/L)	TP (mg/L)	DP (mg/L)	NH3 (mg/L)	NO3 (mg/L)	TKN (mg/L)	DCu (µg/L)	TCu (µg/L)	TPb (µg/L)	DZn (µg/L)	TZn (µg/L)	FC (#/100mL)
Agriculture (row crop)	999.2 (648.2)	3.34 (1.53)	1.41 (1.04)	1.65 (1.67)	34.40 (116.30)	7.32 (3.44)	22.50 (17.50)	100.1 (74.8)	30.2 (34.3)	40.1 (49.1)	274.8 (147.3)	60,300 (153,000)
Commercial	67.0 (47.1)	0.40 (0.33)	0.29 (0.25)	1.21 (4.18)	0.55 (0.55)	3.44 (4.78)	12.3 (10.2)	31.4 (25.7)	12.4 (34.2)	153.4 (96.1)	237.1 (150.3)	51,600 (173,400) ^a
Education (Municipal)	99.6 (122.7)	0.30 (0.17)	0.26 (0.2)	0.4 (0.99)	0.61 (0.67)	1.71 (1.13)	12.2 (11.0)	19.9 (13.6)	3.6 (4.9)	75.4 (52.3)	117.6 (83.1)	11,800 ^b (23,700)
Industrial	219.2 (206.9)	0.39 (0.41)	0.26 (0.25)	0.6 (0.95)	0.87 (0.96)	2.87 (2.33)	15.2 (14.8)	34.5 (36.7)	16.4 (47.1)	422.1 (534.0)	537.4 (487.8)	3,760 (4,860)
Multi-Family Residential	39.9 (51.3)	0.23 (0.21)	0.20 (0.19)	0.50 (0.74)	1.51 (3.06)	1.80 (1.24)	7.40 (5.70)	12.1 (5.60)	4.5 (7.80)	77.5 (84.1)	125.1 (101.1)	11,800 ^c (23,700)
Single Family Residential	124.2 (184.9)	0.40 (0.30)	0.32 (0.21)	0.49 (0.64)	0.78 (1.77)	2.96 (2.74)	9.4 (9.0)	18.7 (13.4)	11.3 (16.6)	27.5 (56.2)	71.9 (62.4)	31,100 ^d (94,200)
Transportation	77.8 (83.8)	0.68 (0.94)	0.56 (0.82)	0.37 (0.68)	0.74 (1.05)	1.84 (1.44)	32.40 (25.5)	52.2 (37.5)	9.2 (14.5)	222.0 (201.7)	292.9 (215.8)	1,680 (456)
Vacant/Open Space	216.6 (1482.8)	0.12 (0.31)	0.09 (0.27)	0.11 (0.25)	1.17 (0.79)	0.96 (0.9)	0.60 (1.90)	10.6 (24.4)	3.0 (13.1)	28.1 (12.9)	26.3 (69.5)	484 (806)

Note: EMC statistics are calculated based on 1996-2000 data for Los Angeles County land use sites (Los Angeles County, 2000), except for agriculture which are based on Ventura County MS4 EMCs (Ventura County, 2003) and fecal coliform which are based on 2000-2005 SCCWRP Los Angeles region land use data (SCCWRP, 2007b). These EMC datasets are summarized in the SBPAT User's Guide (Geosyntec, 2012).

^a The default log distribution best fit summary statistics for this land use-pollutant combination produced an unreasonably high deviation, therefore the arithmetic estimate of the log mean was held constant while the log summary statistics were recomputed based on the log CoV for SFR (SCCWRP's low-density residential EMC).

^b Multi-family residential EMC used here since educational land use site not available in the SCCWRP fecal coliform dataset.

^c The fecal coliform EMC for the multi-family residential land use is based on SCCWRP dataset for "high-density residential"

^d The fecal coliform EMC for the single-family residential land use is based on SCCWRP's dataset for "low-density residential".



LID/Green Street Specificity

- LAR UR2 introduced LID Streets in response to model guidelines attributing bacteria to residential and commercial land uses areas
- Unlike Permit defined Green Streets, LID streets are in residential and commercial areas (low travel intensities) near the source
- Revised WMP identifies current Green Street Projects
- LAR UR2 WMA Cities do not have Pavement Management Systems (PMSs), street maintenance is Capital Improvement Program (CIP) based: one or two year schedules and frequently grant supported
- LID streets will probably require reconstruction, land acquisition, a longer process with greater political and social planning demands
- Each city assigned from \$0.4M to \$21M in LID/Green street work
- **Once approved the WMP becomes the guide for evaluating alternative LID Street designs and seeking support**

Regional BMP Design Criteria

	Footprint (ft ²)	Tributary Acres	Depth (ft)	Volume (ft ³)	Cost Estimate
Randolph Street Greenway or cistern (R BMP #1)	104,000	588	10	353,600	\$10,760,000
Los Angeles DWP Transmission Lines (R BMP #2)	95,280	475	10	656,003	\$19,510,000
John Anson Ford Park (R BMP #3)	544,707	1,653	10	3,124,069	\$91,060,000
Rosewood Park (R BMP #4)	217,729	506	10	1,249,628	\$36,770,000
Lugo Park (R BMP #6)	100,260	356	10	574,829	\$17,170,000
Salt Lake Park (R BMP #7)	196,004	476	10	1,124,665	\$33,110,000
Total Regional BMPs					\$210,000,000
LID/Green Streets	400,000	910	variable		\$90,000,000
Total Regional BMPs and LID/Green Streets					\$300,000,000



Discovery Park, Downey

- Regional BMP concepts based on “in the ground” projects
- Infiltration, not “treatment”
- Discovery Park, Downey
- Sun Valley Park, Los Angeles
- Garvanza Park, Los Angeles



BMP Implementation Schedule

BMP Program or Project	RAA assumes BMP is implemented by:
LID Ordinance Based Redevelopment (~0.25%/year to 2037)	June, 2014 through March, 2037 (interim milestones assume linear progress towards load reduction)
LID and Green Streets (Los Angeles River only)	June, 2014 through March, 2037 (50% implementation by March, 2030)
Non-MS4 Parcels (Individual/General Permittees, Caltrans, Federal)	June, 2017 (MS4 Permit Report of Waste Discharge)
John Anson Ford Park (R BMP #3)	January, 2024 (Dry-weather), 2028 (Wet-weather)
Non-Modeled Non-Structural BMPs	January, 2028
Brake Pad Reformulation (legislation codified)	January, 2028
Randolph Street Greenway or cistern (R BMP #1)	January, 2028
Los Angeles DWP Transmission Lines (R BMP #2)	January, 2028
Rosewood Park (R BMP #4)	January, 2030
Lugo Park (R BMP #6)	March, 2037
Salt Lake Park (R BMP #7)	March, 2037



Question and Answers



"Honest disagreement is often a good sign of progress."
-Mahatma Gandhi

