Los Angeles County MS4 Permit
Coordinated Integrated Monitoring Program

Presented to:

City of Los Angeles

Presented by:

Larry Walker Associates

April 29, 2014

CIMP Overview

- Main Body
  - Key elements of monitoring programs
- Attachment A
  - Background and linkage between priorities and CIMP
- Attachment B
  - Approach and details on RW and SOF sites
- Attachment C
  - Details on how to collect and analyze samples
- Attachment D
  - Overview of reporting and use of data
- Appendix 1 through 4

CIMP Overview – New Details

- Main Body
  - Constituents, MS4 Infrastructure, Trash, Adaptive Management, and Reporting, and CIMP Implementation
- Attachment A
  - Linkage between priorities and CIMP
- Attachment B
  - Additional details on ULAR approach
- Attachment C
  - Most of it is new details
- Attachment D
  - All of it is new details

CIMP Overview – Outstanding Info

- Trash
  - DGR for non-full capture cities
- Lakes
  - Calabasas and Echo outfall monitoring follow up
- Suspended sediment approach

Receiving Water Monitoring

- Elements
  - Determine whether RWLs are being achieved,
  - Assess trends or specific conditions, and
  - Determine whether uses are fully supported
- All MS4 and TMDL monitoring is rolled into the CIMP
- Three types of monitoring to address different goals
  - Long Term Assessment
  - TMDL receiving water compliance points
  - Other RWL exceedances
- Two types of sites
  - Mass Emissions ← Everything monitored
  - TMDL ← TMDL and RWL exceedances monitored

Ballona Creek Receiving Water Monitoring

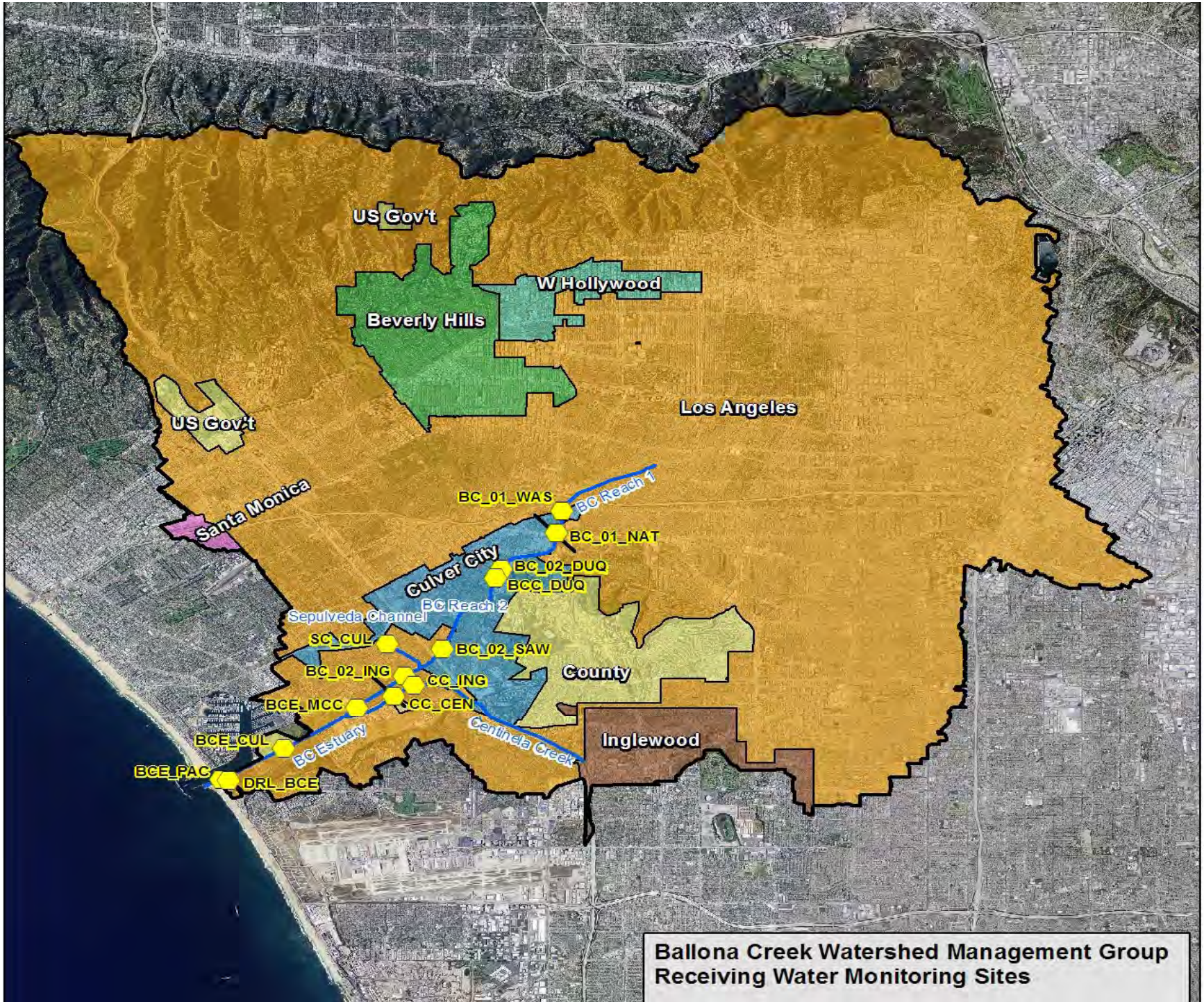

US Gov't
W Hollywood
Beverly Hills
Los Angeles
US Gov't
Santa Monica
BC_01_WAS
BC Reach 1
BC_01_NAT
Culver City
BC_02_DUQ
BCC_DUQ
BC Reach 2
Sepulveda Channel
SC_CUL
BC_02_SAW
BC_02_ING
CC_ING
County
BCE_MCC
CC_CEN
Centinela Creek
Inglewood
BCE_CUL
BC Estuary
BCE_PAC
DRL_BCE
Ballona Creek Watershed Management Group
Receiving Water Monitoring Sites

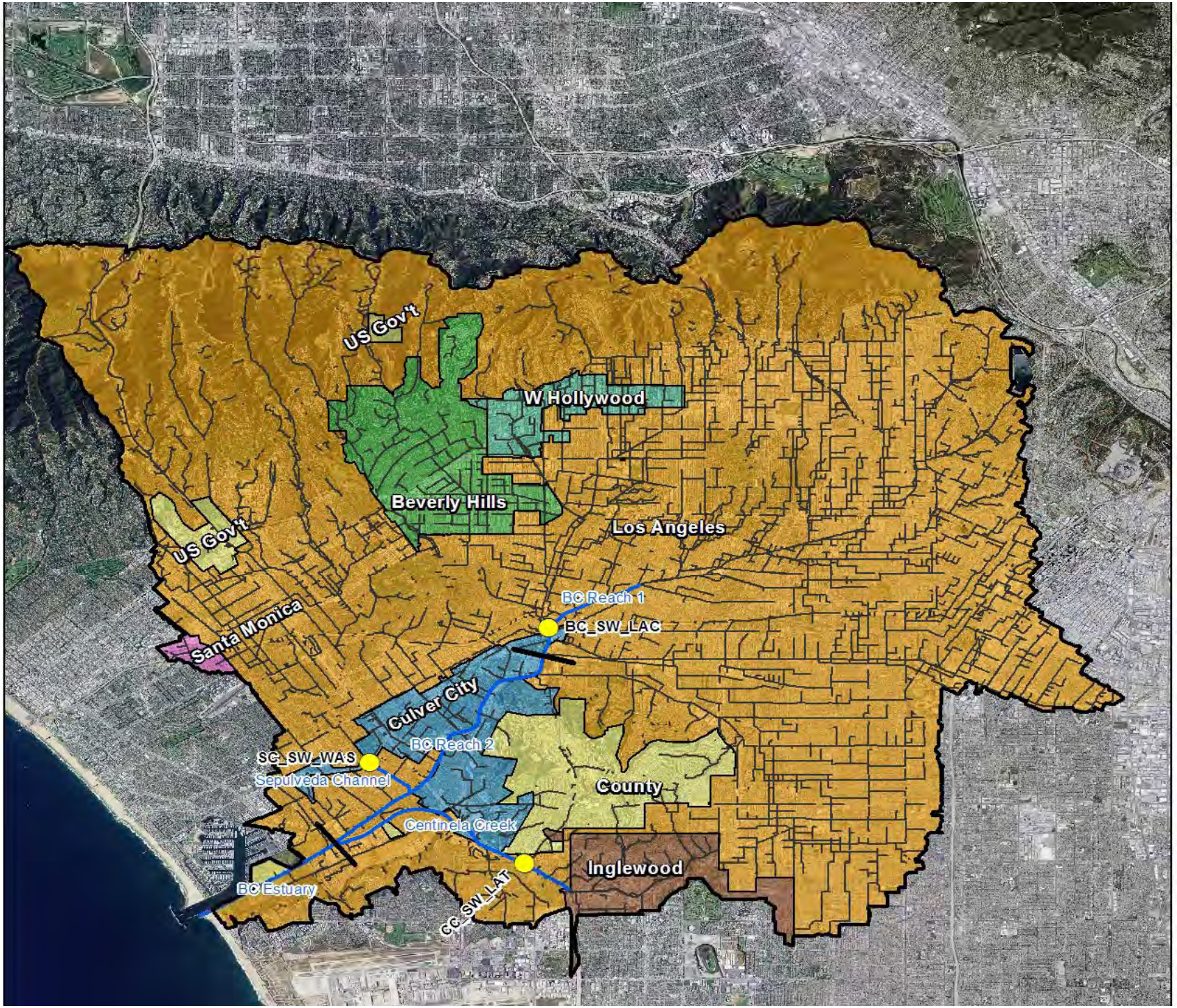
Table 4. Receiving Water Monitoring Sites

Site ID	Water Body/Location	Previous Site Name Used in TMDL Coordinated Monitoring Programs	Coordinates		Monitoring Type	
			Latitude	Longitude	ME	TMDL
BC_02_SAW	Ballona Creek Reach 2 at Sawtelle Blvd	BC-2	33.998293	-118.402035	X	X
BC_02_DUQ	Ballona Creek Reach 2 at Duquesne Ave	BCB-2	34.017342	-118.389191		X
BC_02_ING	Ballona Creek Reach 2 at Inglewood Blvd	BC-1; BCB-5	33.989385[1]	-118.412169[1]		X
BC_01_WAS	Ballona Creek Reach 1 at W Washington Blvd	BCB-1	34.032252	-118.375328		X
BC_01_NAT	Ballona Creek Reach 1 at National Blvd	BC-3	34.027953	-118.376366		X
BCC_DUQ	Benedict Canyon Channel upstream of confluence with Ballona Creek	BCB-3	34.015141	-118.390655		X
SC_CUL	Sepulveda Channel at Culver Blvd	BC-4; BCB-4	33.998319	-118.415671		X
CC_ING	Centinela Creek at Inglewood Blvd	BCB-7	33.987466	-118.409195		X
CC_CEN	Centinela Creek at Centinela Ave	BC-5	33.985321	-118.413104		X
DRL_BCE	Del Rey Lagoon at outlet to the Ballona Creek Estuary	BCB-9	33.962820	-118.451837		X
BCE_MCC	Ballona Creek Estuary at McConnell Ave	BCB-6	33.981657	-118.422380		X
BCE_CUL[2]	Ballona Creek Estuary downstream of Culver Blvd	BCE-4	33.971000[3]	-118.439000[3]		X
BCE_PAC[2]	Ballona Creek Estuary at Pacific Ave	BCE-2; BCB-8	33.963035	-118.453415		X

and NSW OF

- See tables 5 and 6 for constituents

Ballona Creek Storm Water Outfall Monitoring


US Gov't
W Hollywood
Beverly Hills
US Gov't
Los Angeles
Santa Monica
BC Reach 1
BC_SW_LAC
Culver City
BC Reach 2
SC_SW_WAS
Sepulveda Channel
County
Centinela Creek
Inglewood
BC Estuary
CC_SW_LAT

Site Characteristic	Waterbody The Outfall Directly Discharges To		
	Ballona Creek	Sepulveda Channel	Centinela Creek
Site Name	BC_SW_LAC	SC_SW_WAS	CC_SW_LAT
Jurisdiction Where Site is Located	City of Los Angeles	Culver City	County of Los Angeles
Jurisdictions Discharging to Site	Beverly Hills, City of Los Angeles, West Hollywood	City of Los Angeles, Culver City	City of Los Angeles, County of Los Angeles, Inglewood
Drain Name	DDI 0011 Line – Melrose Ave	BI 0425 Line G - S Culver City	LA City Drain
Size	147 Inches	66 Inches	90 Inches
Shape	Rectangular	Round	Round
Material	Reinforced Concrete Box	Reinforced Concrete Pipe	Reinforced Concrete Pipe
Latitude	34.03339	33.99986	33.97428
Longitude	-118.37514	-118.41757	-118.38092

Drainage	Percent of Jurisdiction[1]			
	Res	Com/Ind	Ag/Nur	Open
EWMP Area	71%	25%	<1%	4%
BC_SW_LAC	78%	21%	<1%	1%
SC_SW_WAS	86%	14%	<1%	<1%
CC_SW_LAT	41%	55%	<1%	4%

- See table 13 for constituents

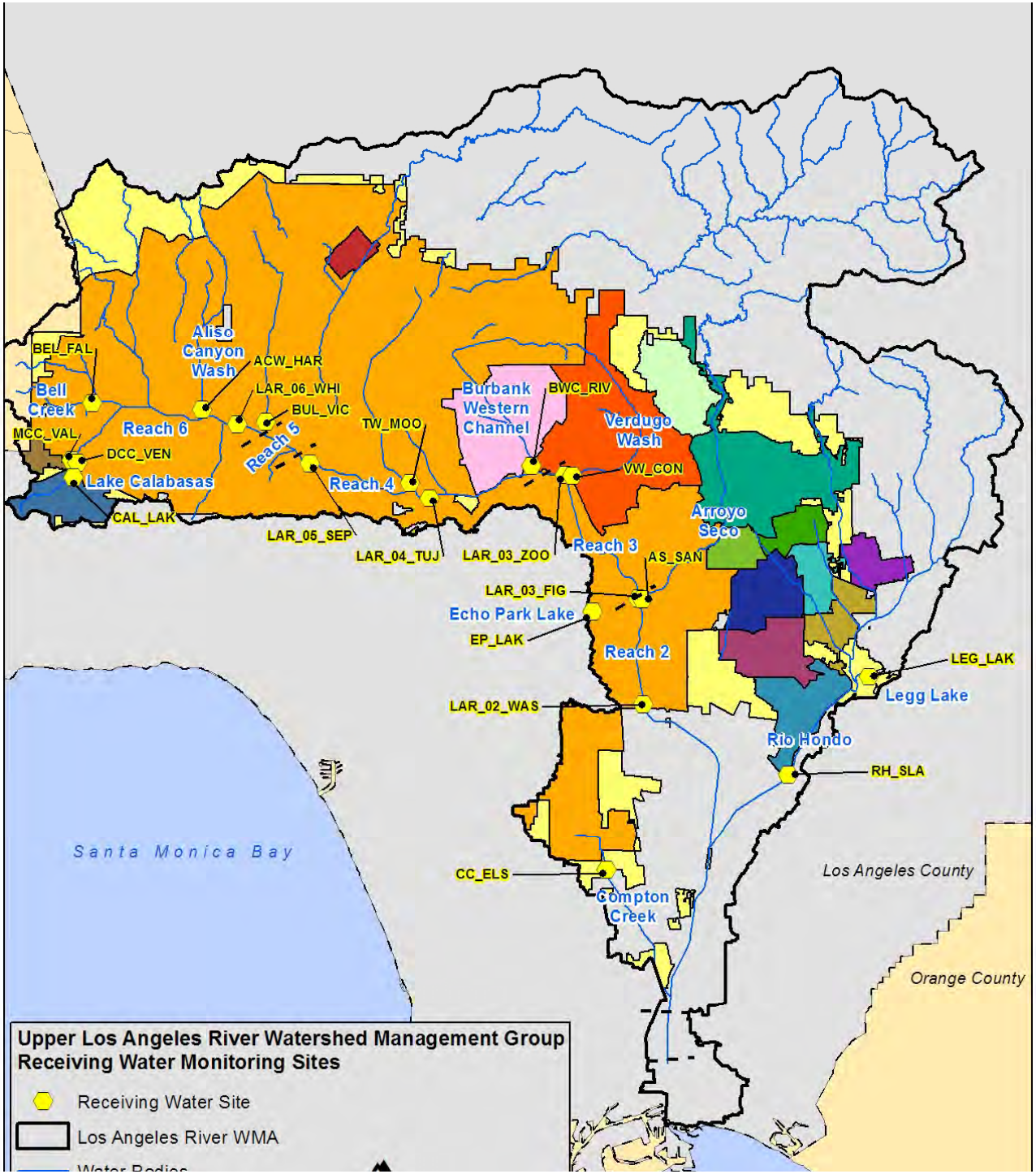
LA River Receiving Water Monitoring

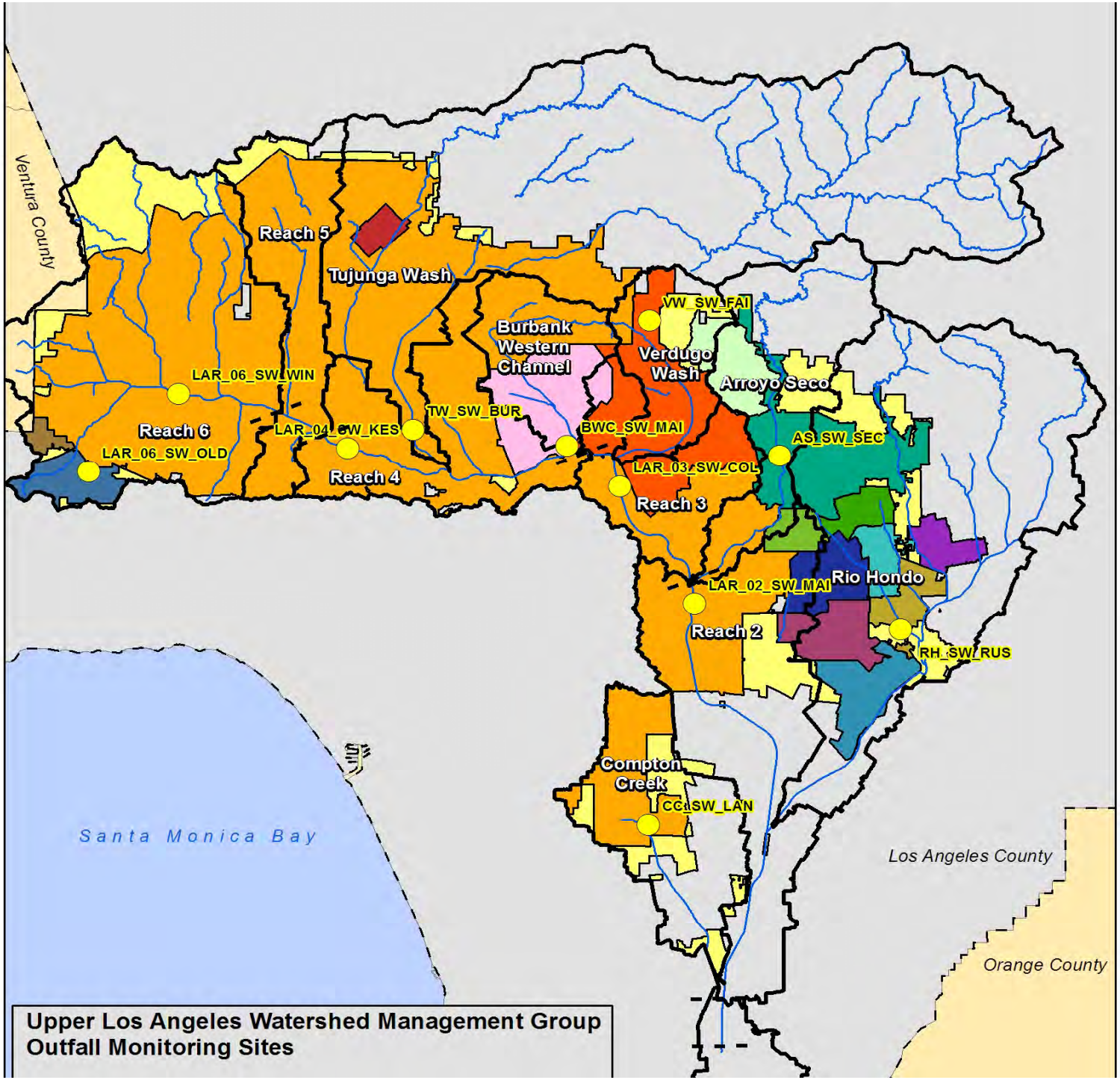
Receiving Water Monitoring Sites

- Establish a new ME site at Washington
- Co-locate sites if possible with WRP Sites
- Utilize Existing Metals TMDL CMP Sites
  - New sites in Rio Hondo and Compton Creek
- Additional Bacteria TMDL Sites
  - Aliso Canyon Wash
  - Bell Creek
  - Bull Creek
  - Dry Canyon
  - McCoy Canyon

Site ID	Waterbody/Location	Previous Site Name Used in TMDL Monitoring Programs	Coordinates		Monitoring Type	
			Latitude	Longitude	ME	TMDL
LAR_02_WAS	LA River Reach 2 upstream of Washington Blvd	LAR1-8	34.018436	-118.223499	X	X
LAR_03_FIG	LA River Reach 3 at Figueroa St	LAR1-7; LARB-03	34.081249	-118.227546		X
LAR_03_ZOO[1]	LA River Reach 3 at Zoo Dr	LAR1-6; LARB-05	34.155683	-118.281270		X
LAR_04_TUJ	LA River Reach 4 at Tujunga Ave	LAR1-4; LARB-04	34.140977	-118.379127		X
LAR_05_SEP[2]	LA River Reach 5 at Sepulveda Blvd	LAR1-2	34.161559	-118.465969		X
LAR_06_WHI	LA River Reach 6 at White Oak Ave	LAR1-1	34.185076	-118.518735		X
CC_ELS	Compton Creek upstream of El Segundo Blvd	N/A	33.917332	-118.249956		X
RH_SLA	Rio Hondo at Slauson Ave	N/A	33.975272	-118.118805		X
AS_SAN	Arroyo Seco at San Fernando Rd	LAR2-3; LARB-08	34.080470	-118.224970		X
VW_CON	Verdugo Wash at Concord St	LAR2-2; LARB-09	34.156724	-118.271240		X
BWC_RIV[3]	Burbank Western Channel at Riverside Dr	LAR1-5; LARB-10	34.160714	-118.305020		X
TW_MOO	Tujunga Wash at Moorpark St	LAR1-3; LARB-11	34.150429	-118.393130		X
BUL_VIC[4]	Bull Creek at Victory Blvd	LARB-12	34.186770	-118.497780		X
ACW_HAR	Aliso Canyon Wash at Hart St	LARB-13	34.197531	-118.543945		X
MCC_VAL	McCoy Canyon Creek at Valley Circle Blvd	LARB-14	34.163094	-118.637946		X
DCC_VEN	Dry Canyon Creek at Ventura Blvd	LARB-15	34.161533	-118.634355		X
BEL_FAL	Bell Creek at Fallbrook Ave	LARB-16	34.197489	-118.623553		X
EPL_1	Echo Park Lake	N/A	34.07468	-118.25924		X
EPL_2			34.07311	-118.26009		X
EPL_3			34.07128	-118.26028		X
EPL_4			34.07086	-118.26117		X
EPL_5			34.07285	-118.26145		X
EPL_6			34.07409	-118.26136		X
EPL_7			34.07392	-118.26079		X
EPL_8			34.07264	-118.26077		X
EPL_9			34.07180	-118.26074		X
LEG_LAK	Legg Lake	N/A	Varies	Varies		X
CAL_LAK	Lake Calabasas	N/A	Varies	Varies		X

- See tables 4, 5 and 6 for constituents


Aliso Canyon Wash
ACW_HAR
BEL_FAL
Bell Creek
LAR_06_WHI
BUL_VIC
MCC_VAL
Reach 6
Reach 5
TW_MOO
DCC_VEN
Lake Calabasas
Reach 4
CAL_LAK
LAR_05_SEP
LAR_04_TUJ
Burbank Western Channel
BWC_RIV
Verdugo Wash
VW_CON
Arroyo Seco
LAR_03_ZOO
Reach 3
AS_SAN
LAR_03_FIG
Echo Park Lake
EP_LAK
Reach 2
LEG_LAK
Legg Lake
LAR_02_WAS
Rio Hondo
RH_SLA
Santa Monica Bay
CC_ELS
Compton Creek
Los Angeles County
Orange County
Upper Los Angeles River Watershed Management Group
Receiving Water Monitoring Sites
Receiving Water Site
Los Angeles River WMA

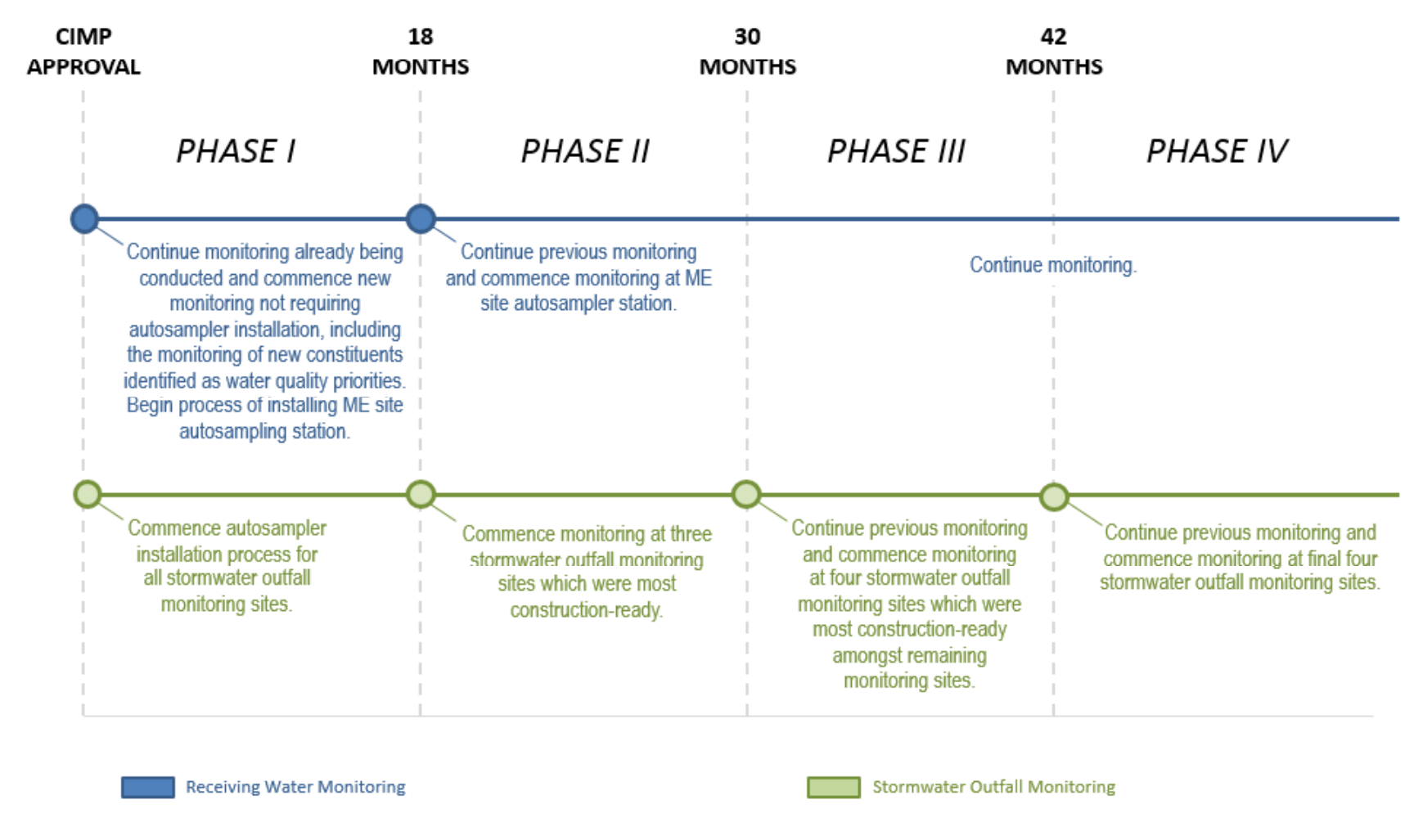

Ventura County
Reach 5
Tujunga Wash
Burbank Western Channel
VW_SW_FAI
Verdugo Wash
Arroyo Seco
LAR_06_SW_WIN
TW_SW_BUR
BWC_SW_MAI
AS_SW_SEC
Reach 6
LAR_06_SW_OLD
LAR_04_SW_KES
Reach 4
LAR_03_SW_COL
Reach 3
Rio Hondo
LAR_02_SW_MAI
Reach 2
RH_SW_RUS
Compton Creek
CC_SW_LAN
Santa Monica Bay
Los Angeles County
Orange County
Upper Los Angeles Watershed Management Group
Outfall Monitoring Sites

Subwatershed	Site Name	Drain Name	Jurisdiction Where Site is Located	Jurisdictions Draining to the Site	Size	Shape	Latitude	Longitude
LA River Reach 2	LAR_02_SW_MAI	BI 0062 – Line A	City of LA	City of LA	147"	Rectangular	34.06720	-118.22424
LA River Reach 3	LAR_03_SW_COL	BI 9506 U01	City of LA	City of LA, Glendale	144"	Rectangular	34.13668	-118.27477
LA River Reach 4	LAR_04_SW_KES	BI 0108 - Kester Ave	City of LA	City of LA	96"	Rectangular	34.15907	-118.45712
LA River Reach 6	LAR_06_SW_WIN	BI 0477	City of LA	City of LA	108"	Rectangular	34.19097	-118.57072
LA River Reach 6	LAR_06_SW_OLD	PD 0778	Calabasas	Calabasas	45"	Round	34.14422	-118.63045
Compton Creek	CC_SW_LAN	BI 0073 – U1 Line C	City of LA	City of LA, County of LA	108"	Rectangular	33.93540	-118.25479
Rio Hondo	RH_SW_RUS	BI 0005 - Line B	Rosemead	County of LA, Monterey Park, Rosemead	72"	Rectangular	34.05167	-118.08632
Arroyo Seco	AS_SW_SEC	Seco St Drain	Pasadena	Pasadena, County of LA	81"	Rectangular	34.15511	-118.16757
Verdugo Wash	VW_SW_FAI	BI 3602 U01	Glendale	Glendale	60"	Round	34.23547	-118.2550
Burbank Western Channel	BWC_SW_MAI	BI 0169	Burbank	Burbank	72"	Rectangular	34.16096	-118.30999
Tujunga Wash	TW_SW_BUR	BI 0091 (F1046)	City of LA	City of LA	81"	Round	34.17019	-118.41335

- Lakes tied into these sites
- See table 13 for constituents

CIMP Implementation Schedules

LA River CIMP Schedule



BC CIMP Schedule