

Appendix A. Monitoring Site Information

Malibu Creek Watershed				
Site	Latitude	Longitude	Group Monitoring	Dates Included
Las Virgenes Creek at Craggs Road	34.096318	-118.717585	Heal the Bay	June 30 – Sept 28, 2014 June 28 – Sept 30, 2015 June 15 – Sept 29, 2016 June 6 – Sept 26, 2017 June 13 – Sept 28, 2018 June 5 – Sept 19, 2019 June 18 – Sept 24, 2020 June 16 – Sept 28, 2021
Malibu Creek at Rock Pool	34.093996	-118.732933	Heal the Bay	June 30 – Sept 28, 2014 June 28 – Sept 30, 2015 June 15 – Sept 29, 2016 June 6 – Sept 26, 2017 June 13 – Sept 28, 2018 June 5 – Sept 19, 2019 June 18 – Sept 24, 2020 June 16 – Sept 28, 2021
L.A. River Watershed				
L.A. River Watershed: Recreation Zones				
L.A. River at Balboa Blvd.	34.17942	-118.5	LASAN	Apr 12 – Sept 13, 2017 May 15 – Sept 27, 2018 May 23 – Sept 5, 2019 May 21 – Sept 29, 2020 May 18 – Sept 30, 2021
L.A. River at Middle of Sepulveda Basin Recreation Zone	34.17616	-118.491	LASAN	Apr 12 – Sept 13, 2017 May 15 – Sept 27, 2018 May 23 – Sept 5, 2019 May 21 – Sept 29, 2020 May 18 – Sept 30, 2021
L.A. River at Burbank Blvd.	34.170411	-118.477191	Heal the Bay	July 16 – Oct 1, 2015 May 31 – Sept 27, 2016 May 31 – Sept 29, 2017 May 25 – Sept 28, 2018 June 14 – Sept 27, 2019 June 18 – Sept 24, 2020 June 16 – Sept 28, 2021
L.A. River at Sepulveda Dam	34.16764	-118.474	LASAN	Apr 12 – Sept 13, 2017 May 15 – Sept 27, 2018 May 23 – Sept 5, 2019 May 21 – Sept 29, 2020 May 18 – Sept 30, 2021
L.A. River at Rattlesnake Park	34.108199	-118.252743	Heal the Bay Heal the Bay HtB & LASAN HtB & LASAN HtB & LASAN HtB & LASAN HtB & LASAN	July 9 – Oct 1, 2015 May 31 – Sept 27, 2016 May 11 – Sept 29, 2017 May 15 – Sept 28, 2018 May 23 – Sept 27, 2019 May 21 – Sept 29, 2020 May 18 – Sept 30, 2021

L.A. River at Benedict St. (Frogspot)	34.1014027	-118.2425	Heal the Bay Heal the Bay HtB & LASAN HtB & LASAN HtB & LASAN HtB & LASAN	Aug 16 – Sept 27, 2016 May 31 – Sept 27, 2017 May 15 – Sept 28, 2018 May 23 – Sept 27, 2019 May 21 – Sept 29, 2020 May 18 – Sept 30, 2021
L.A. River at Steelhead Park	34.086640	-118.228129	Heal the Bay Heal the Bay HtB & LASAN HtB & LASAN HtB & LASAN HtB & LASAN HtB & LASAN	July 16 – Oct 1, 2015 May 31 – Sept 27, 2016 May 11 – Sept 29, 2017 May 15 – Sept 28, 2018 May 23 – Sept 27, 2019 May 21 – Sept 29, 2020 May 18 – Sept 30, 2021
Upper L.A. River Watershed				
Bull Creek	34.17869	-118.497	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018 May 27 – Sept 2, 2019 June 3 – Sept 28, 2020 May 26 – Aug 28, 2021
Millard Campground	34.21693	-118.145	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018
Eaton Canyon	34.19377	-118.104	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018 May 27 – Sept 2, 2019 July 27 – Sept 4, 2020 May 26 – Aug 28, 2021
Big Tujunga Creek at Delta Flat	34.30073	-118.262	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018 May 26 – Aug 28, 2021
Switzer Falls	34.26636	-118.146	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018 May 27 – Sept 2, 2019 July 27 – Sept 4, 2020 May 26 – Aug 28, 2021
Gould Mesa	34.22496	-118.179	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018 May 28 – Sept 2, 2019 July 27 – Sept 4, 2020 May 26 – Aug 28, 2021
Sturtevant Falls	34.21145	-118.02	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018 May 27 – Sept 2, 2019 July 24 – Sept 4, 2020
Hermit Falls	34.19122	-118.017	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018 May 27 – Sept 2, 2019

Tujunga Wash at Hansen Dam	34.26655	-118.376	LARWMP	May 29 – Sept 4, 2017 May 29 – Sept 3, 2018 May 27 – Sept 2, 2019 June 3 – Sept 28, 2020 May 26 – Aug 28, 2021
Lake Balboa Boat Ramp	34.181821	-118.494680	LASAN	May 23 – Sept 5, 2019 May 26 – Sept 29, 2020 May 25 – Sept 30, 2021
Lake Balboa Outlet	34.178838	-118.493616	LASAN	May 23 – Sept 5, 2019 May 26 – Sept 29, 2020 May 25 – Sept 30, 2021
Hansen Dam Lake	34.27264	-118.38897	LASAN	May 27 – Sept 2, 2019 June 3 – Sept 28, 2020 May 18 – Aug 28, 2021
Big Tujunga Creek at Vogel Flats	34.286602	-118.22966	LASAN	Aug 7 – Sept 4, 2020 May 26 – Aug 28, 2021
Mill Creek at Hidden Springs	34.3158	-118.13622	LASAN	May 26 – Aug 28, 2021
San Gabriel River Watershed				
San Gabriel River Upper North Fork	34.25252	-117.85762	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Sept 6, 2020 May 31 – Aug 29, 2021
San Gabriel River Lower North Fork	34.24284	-117.86947	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Sept 6, 2020 May 31 – Aug 29, 2021
San Gabriel River Upper West Fork	34.24287	-117.87606	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Sept 6, 2020 May 31 – Aug 29, 2021
San Gabriel River Below North & West Forks	34.24173	-117.87029	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Aug 31, 2020 May 31 – Aug 29, 2021
San Gabriel River Upper East Fork	34.24148	-117.76198	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Sept 6, 2020 May 31 – Aug 29, 2021
San Gabriel River Upper Cattle Canyon	34.22942	-117.76722	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Sept 6, 2020 May 31 – Aug 29, 2021

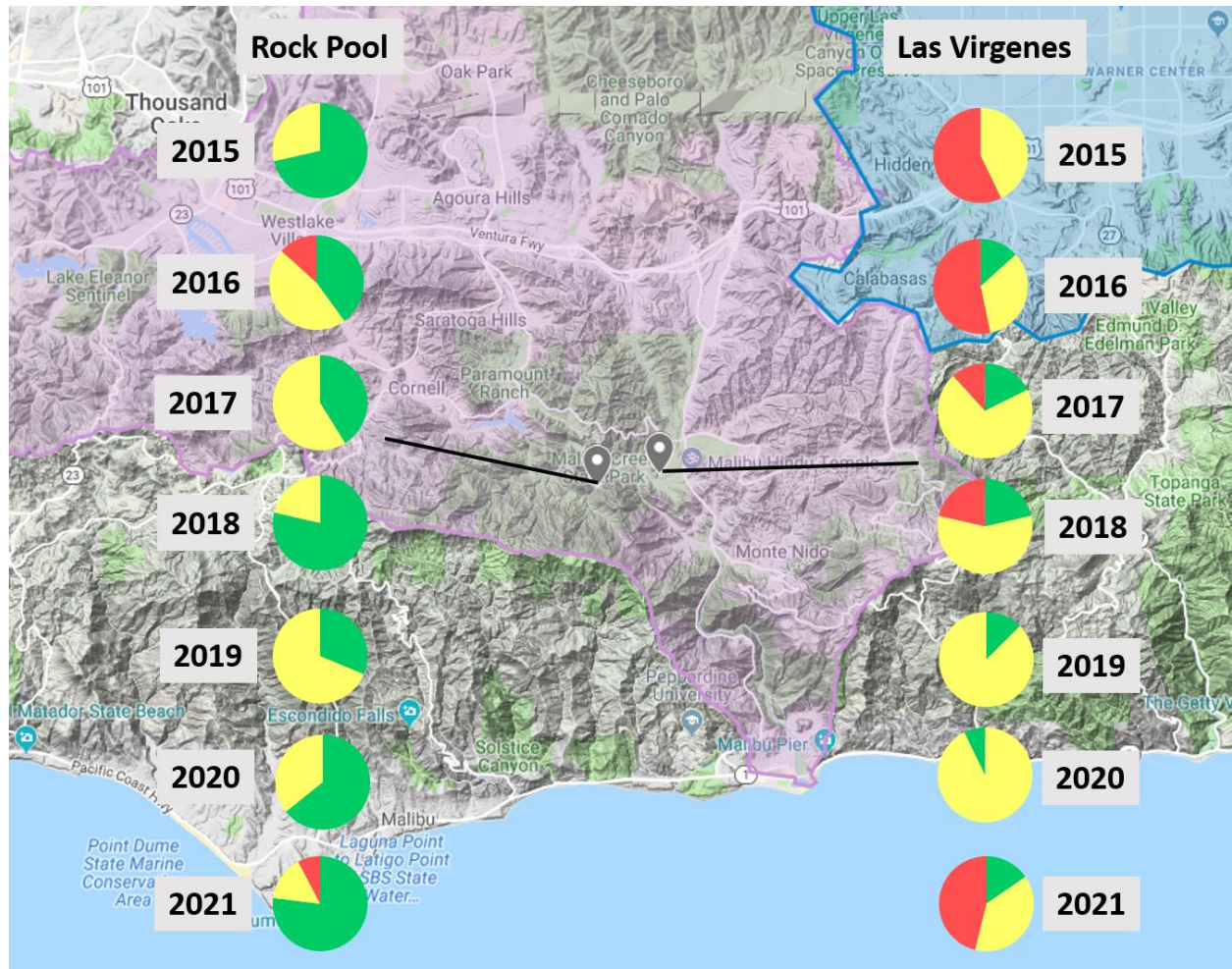
San Gabriel River East Fork at Cattle Canyon	34.22899	-117.76925	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Aug 31, 2020 May 31 – Aug 29, 2021
San Gabriel River East Fork at Graveyard	34.23683	-117.8123	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Sept 6, 2020 May 31 – Aug 29, 2021
San Gabriel River Lower West Fork	34.24153	-117.86753	SGRRMP	May 29- Sept 1, 2017 May 28 – Aug 23, 2018 May 27 – Sept 2, 2019 May 25 – Aug 31, 2020 May 31 – Aug 29, 2021
Lower L.A. River Watershed				
L.A. River at Riverfront Park	33.98607	-118.17138	Heal the Bay	Aug 18 – Nov 17, 2021
L.A. River Below Rio Hondo Confluence	33.93037	-118.17598	Heal the Bay	Aug 18 – Nov 17, 2021
L.A. River at Hollydale Park	33.9266	-118.1764	Heal the Bay	Aug 18 – Nov 17, 2021
L.A. River Below Compton Creek Confluence	33.84124	-118.20365	Heal the Bay	Aug 18 – Nov 17, 2021
Compton Creek	33.8424	-118.20492	Heal the Bay	Aug 18 – Nov 17, 2021
L.A. River at Willow Street	33.8057	-118.20547	Heal the Bay	Aug 18 – Nov 17, 2021

Appendix B. Storm Drain Outfall Site Information. Storm drains in the L.A. River Elysian Valley Recreation Zone were monitored by Heal the Bay. Storm drains are identified by latitude and longitude, the side of the River they are located on (right or left facing downstream), and the nearest cross street or landmark. Size of storm drains was estimated as diameter if they were circular or as height by width if they were rectangular. Flow was assessed categorically as 0=no flow; 0.5=wet/ponded but not reaching main channel; 1=light/trickle and reaching main channel; 2=medium/steady flow, higher volume, could carry a leaf; 3=heavy/high flow, large volume, could carry a stick. Flow values were averaged for each storm drain over the entire summer of 2019 for each storm drain except Fletcher. The average flow for Fletcher is from summer 2021.

Site Name	Side of River	Cross St./Landmark	Latitude	Longitude	Approximate Size	Average Flow
SDR8	Right	Near end of Crystal St.	34° 5'35.61"N	118°14'1.20"W	4 ft. diameter	0.75
SDR10	Right	Near end of Altman St.	34° 5'37.05"N	118°14'11.18"W	4 ft. diameter	0.92
SDR13	Right	Near end of Birkdale St.	34° 5'37.85"N	118°14'14.76"W	3 ft. diameter	0.5
SDR18	Right	Near end of Forney St.	34° 5'40.67"N	118°14'20.52"W	3 ft. diameter	0.75
SDR20	Right	Near end of Pirtle St.	34° 5'54.82"N	118°14'32.06"W	3 ft. x 10 ft.	0.56
SDR25	Right	Near end of Partridge Ave.	34° 5'54.82"N	118°14'32.06"W	1 ft. x 3 ft.	1.25
Fletcher	Right	Downstream of Fletcher Dr.	34° 6'23.92"N	118°14'42.14"W	2 ft. diameter	1.8
SDR30	Right	Downstream from Glendale Blvd, just upstream from pink pipe	34° 6'28.90"N	118°15'14.02"W	5 ft. x 12 ft.	1.23
SDL10	Left	Just upstream of 2 freeway overpass	34° 6'41.66"N	118°15'49.24"W	7 ft. x 7 ft.	0.75
SDL15	Left	Immediately downstream of 2 freeway	34° 6'32.56"N	118°15'0.03"W	3 ft. diameter	0.67
SDL20	Left	Downstream 2 freeway, grate covering	34° 6'32.31"N	118°14'55.75"W	4 ft. x 4 ft.	0.64
SDL30	Left	Across from Marsh St.	34° 6'29.87"N	118°14'47.41"W	11 ft. x 10 ft.	1.36
SDL40	Left	Across from Knox Ave.	34° 6'27.96"N	118°14'42.26"W	12 ft. diameter	1.64
SDL50	Left	Across from Newell St.	34° 6'14.02"N	118°14'31.06"W	10 ft. x 12 ft.	2.91

Appendix C: Grade percentages for all monitoring years across all sites. Sites marked with * on maps indicate that grades were calculated using only *E. coli* data.

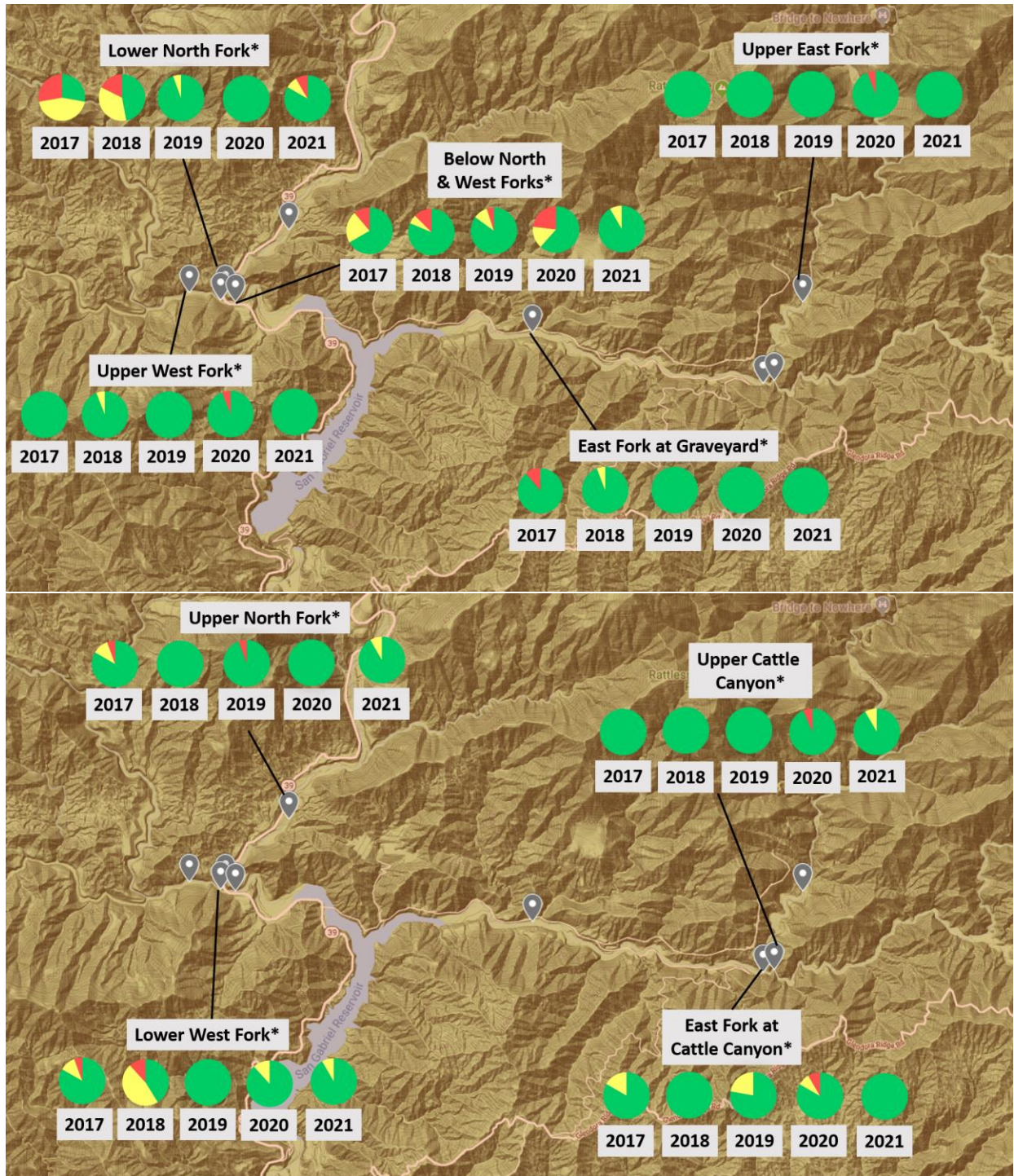
Malibu Creek Watershed



Site Name	Year	% Green Grades	% Yellow Grades	% Red Grades
Rock Pool	2014	38%	56%	6%
Las Virgenes	2014	6%	61%	33%
Rock Pool	2015	71%	29%	0%
Las Virgenes	2015	0%	43%	57%
Rock Pool	2016	40%	47%	13%
Las Virgenes	2016	13%	33%	54%
Rock Pool	2017	41%	59%	0%
Las Virgenes	2017	18%	71%	11%
Rock Pool	2018	79%	21%	0%
Las Virgenes	2018	21%	57%	22%
Rock Pool	2019	31%	69%	0%
Las Virgenes	2019	13%	88%	0%

Rock Pool	2020	64%	36%	0%
Las Virgenes	2020	0%	93%	7%
Rock Pool	2021	77%	15%	8%
Las Virgenes	2021	15%	38%	46%

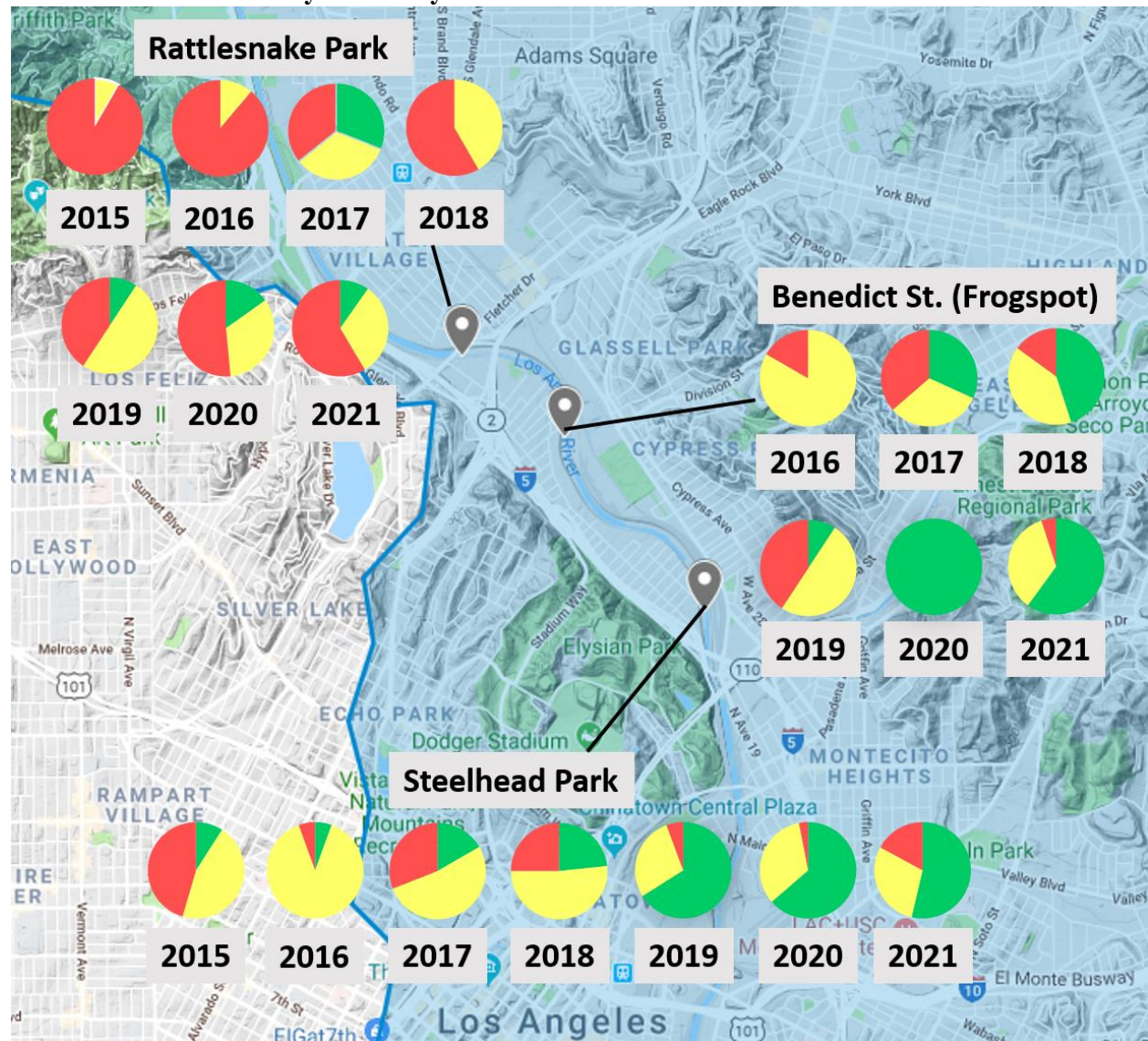
San Gabriel River Watershed



Site Name	Year	% Green Grades	% Yellow Grades	% Red Grades
Lower North fork	2017	28%	44%	28%
Upper North Fork	2017	83%	11%	6%
Upper West Fork	2017	100%	0%	0%
Lower West Fork	2017	83%	11%	6%
Upper East Fork	2017	100%	0%	0%
Upper Cattle Canyon	2017	100%	0%	0%
East Fork at Cattle Canyon	2017	83%	17%	0%
East Fork at Graveyard	2017	89%	0%	11%
Below North & West Forks	2017	67%	22%	11%
Upper North Fork	2018	100%	0%	0%
Lower North Fork	2018	47%	35%	18%
Upper West Fork	2018	94%	6%	0%
Lower West Fork	2018	41%	47%	12%
Upper East Fork	2018	100%	0%	0%
Upper Cattle Canyon	2018	100%	0%	0%
East Fork at Cattle Canyon	2018	100%	0%	0%
East Fork at Graveyard Canyon	2018	94%	6%	0%
Below North & West Forks	2018	81%	6%	13%
Upper North Fork	2019	94%	0%	6%
Lower North Fork	2019	94%	6%	0%
Upper West Fork	2019	100%	0%	0%
Lower West Fork	2019	100%	0%	0%
Upper East Fork	2019	100%	0%	0%
Upper Cattle Canyon	2019	100%	0%	0%
East Fork at Cattle Canyon	2019	78%	22%	0%
East Fork at Graveyard Canyon	2019	100%	0%	0%
Below North & West Forks	2019	83%	11%	6%
Upper North Fork	2020	100%	0%	0%
Lower North Fork	2020	100%	0%	0%
Upper West Fork	2020	94%	0%	6%
Lower West Fork	2020	88%	12%	0%
Upper East Fork	2020	94%	0%	6%
Upper Cattle Canyon	2020	93%	0%	7%
East Fork at Cattle Canyon	2020	83%	8%	8%
East Fork at Graveyard Canyon	2020	100%	0%	0%
Below North & West Forks	2020	62%	15%	23%
Upper North Fork	2021	92%	8%	0%
Lower North Fork	2021	83%	8%	8%
Upper West Fork	2021	100%	0%	0%
Lower West Fork	2021	92%	8%	0%

Upper East Fork	2021	100%	0%	0%
Upper Cattle Canyon	2021	92%	8%	0%
East Fork at Cattle Canyon	2021	100%	0%	0%
East Fork at Graveyard Canyon	2021	100%	0%	0%
Below North & West Forks	2021	92%	8%	0%

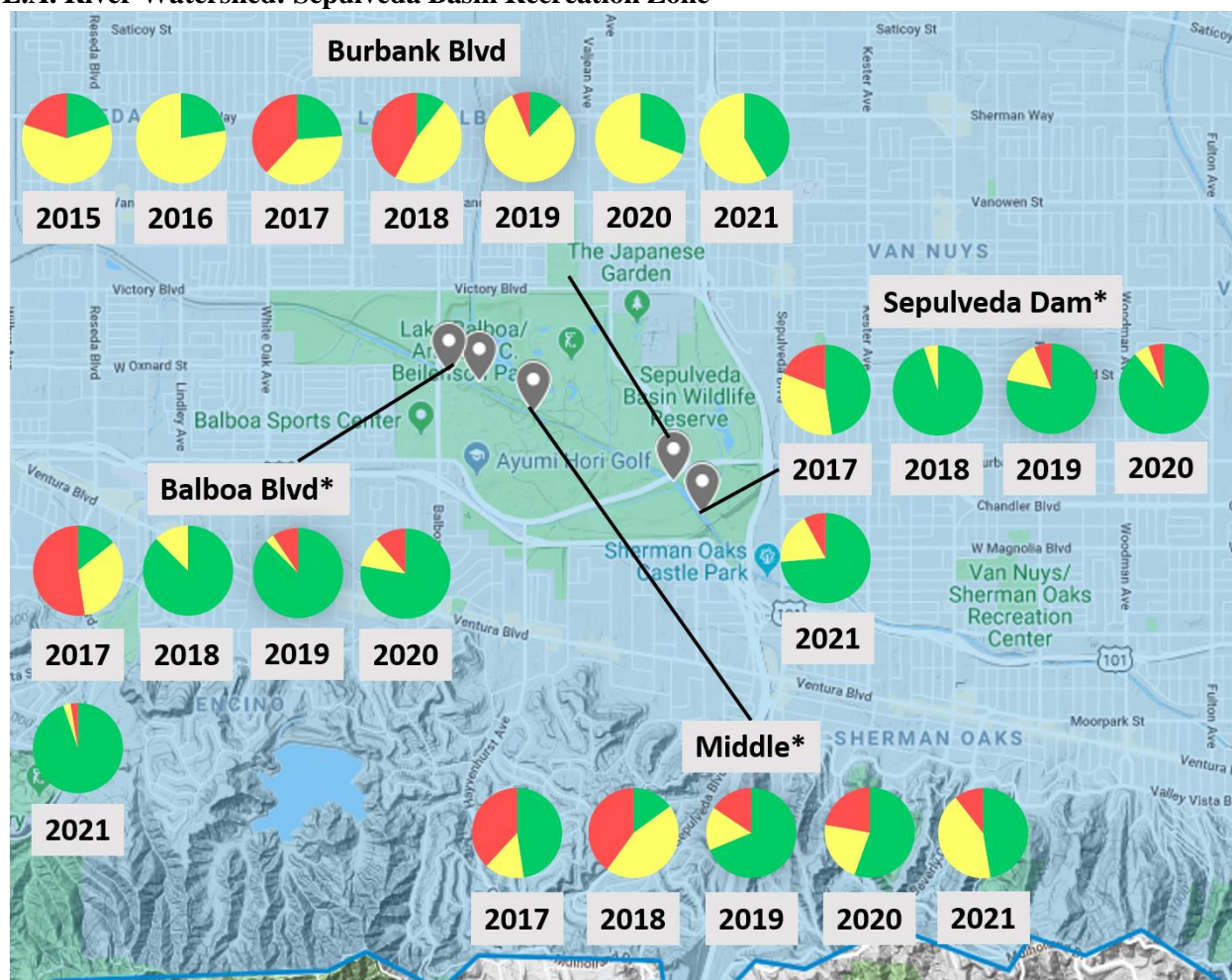
L.A. River Watershed: Elysian Valley Recreation Zone



Site Name	Year	% Green Grades	% Yellow Grades	% Red Grades
Rattlesnake Park	2015	0%	8%	92%
Steelhead Park	2015	9%	45%	46%
Rattlesnake Park	2016	0%	11%	89%
Benedict St. (Frogspot)	2016	0%	83%	17%
Steelhead Park	2016	5.5%	89%	6%
Rattlesnake Park	2017	31%	33%	36%
Benedict St. (Frogspot)	2017	32%	32%	36%
Steelhead Park	2017	17%	52%	31%
Rattlesnake Park	2018	0%	42%	58%
Benedict St. (Frogspot)	2018	45%	40%	15%

Steelhead Park	2018	23%	52%	25%
Rattlesnake Park	2019	9%	50%	41%
Benedict St. (Frogspot)	2019	54%	32%	15%
Steelhead Park	2019	66%	28%	6%
Rattlesnake Park	2020	15%	33%	52%
Benedict St. (Frogspot)	2020	100%	0%	0%
Steelhead Park	2020	64%	33%	3%
Rattlesnake Park	2021	10%	32%	59%
Benedict St. (Frogspot)	2021	60%	35%	5%
Steelhead Park	2021	54%	29%	17%

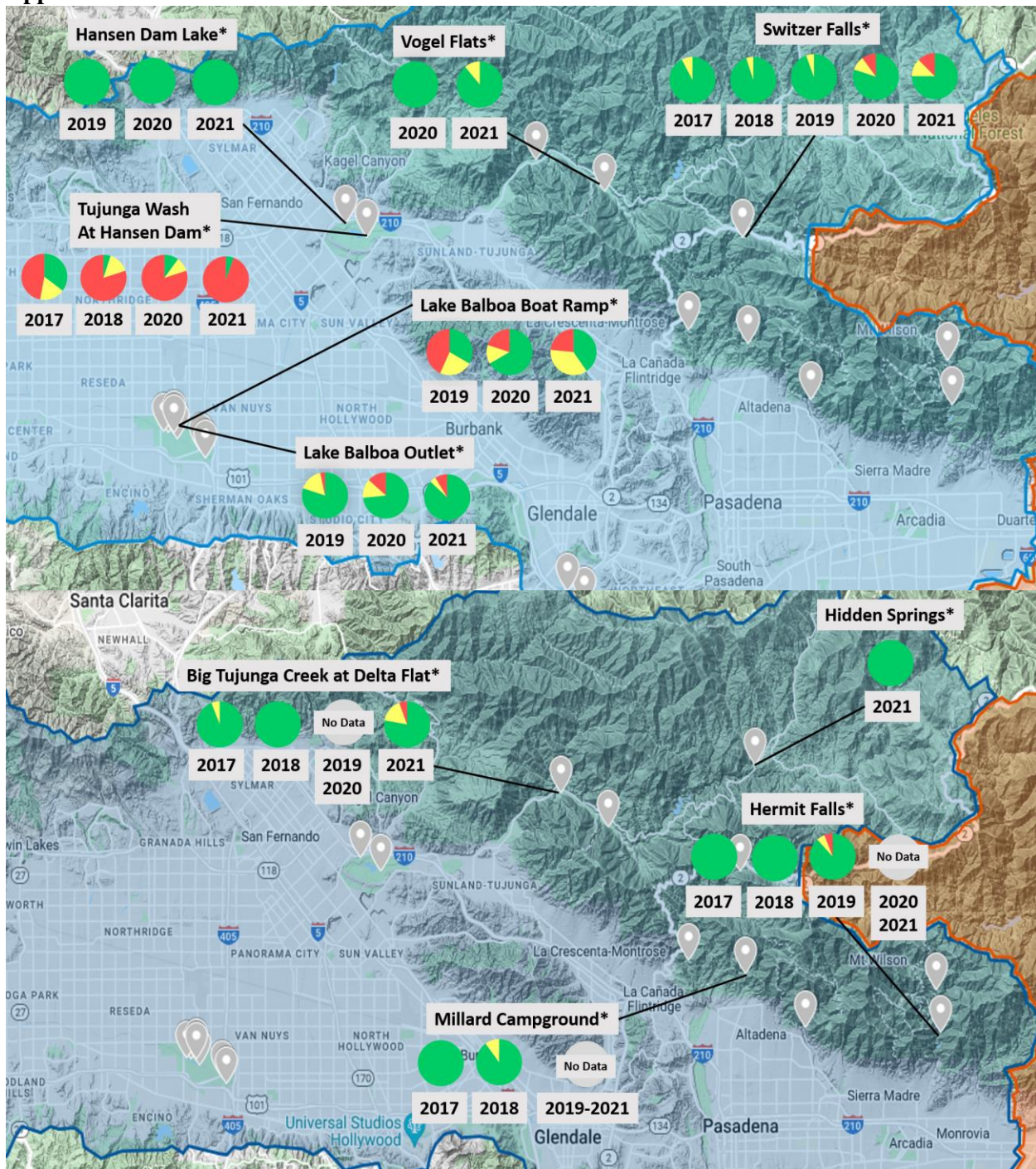
L.A. River Watershed: Sepulveda Basin Recreation Zone

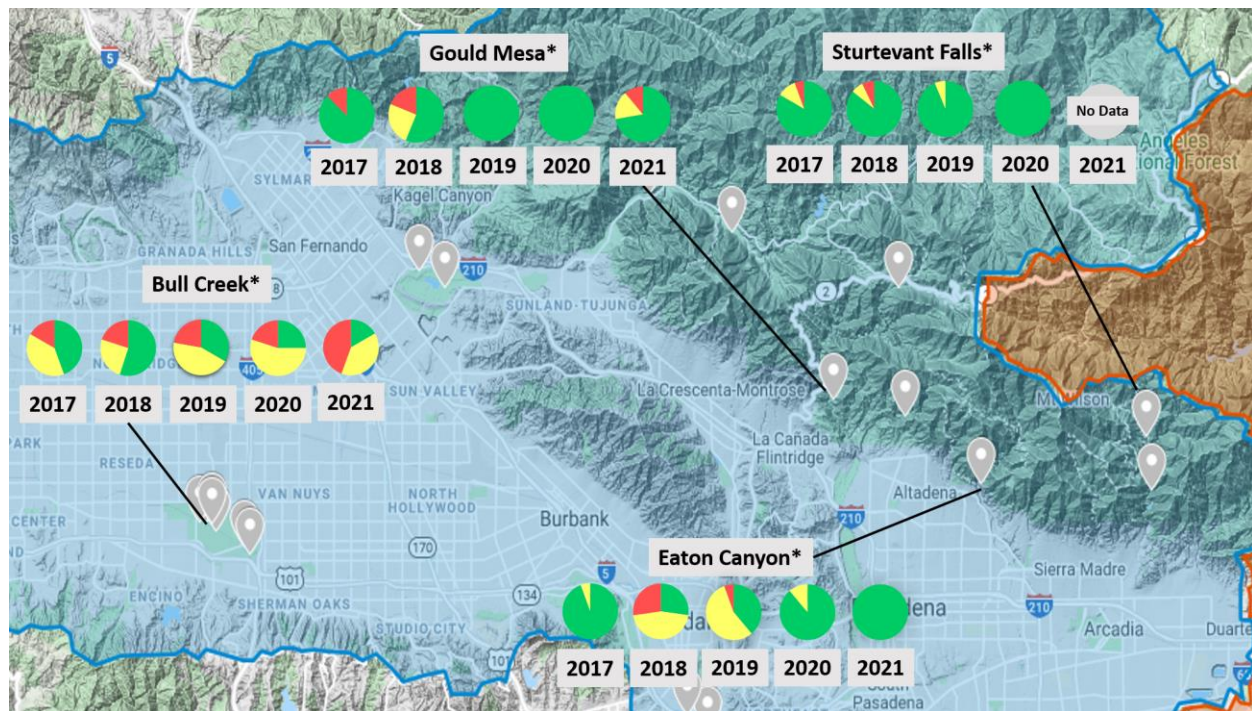


Site Name	Year	% Green Grades	% Yellow Grades	% Red Grades
L.A. River at Burbank Blvd.	2015	20%	60%	20%
L.A. River at Burbank Blvd.	2016	22%	78%	0%
L.A. River at Balboa Blvd.	2017	14%	33%	53%

Sepulveda Basin Middle	2017	48%	14%	38%
Sepulveda Dam	2017	48%	33%	19%
L.A. River at Burbank Blvd.	2017	24%	38%	38%
L.A. River at Balboa Blvd.	2018	87%	13%	0%
Sepulveda Basin Middle	2018	15%	45%	40%
Sepulveda Dam	2018	95%	5%	0%
L.A. River at Burbank Blvd.	2018	11%	47%	43%
L.A. River at Balboa Blvd.	2019	88%	3%	9%
Sepulveda Basin Middle	2019	69%	16%	16%
Sepulveda Dam	2019	78%	16%	6%
L.A. River at Burbank Blvd.	2019	13%	81%	6%
L.A. River at Balboa Blvd.	2020	78%	11%	11%
Sepulveda Basin Middle	2020	56%	22%	22%
Sepulveda Dam	2020	89%	6%	6%
L.A. River at Burbank Blvd.	2020	31%	69%	0%
L.A. River at Balboa Blvd.	2021	95%	3%	3%
Sepulveda Basin Middle	2021	47%	42%	11%
Sepulveda Dam	2021	74%	18%	8%
L.A. River at Burbank Blvd.	2021	42%	58%	0%

Upper L.A. River Watershed

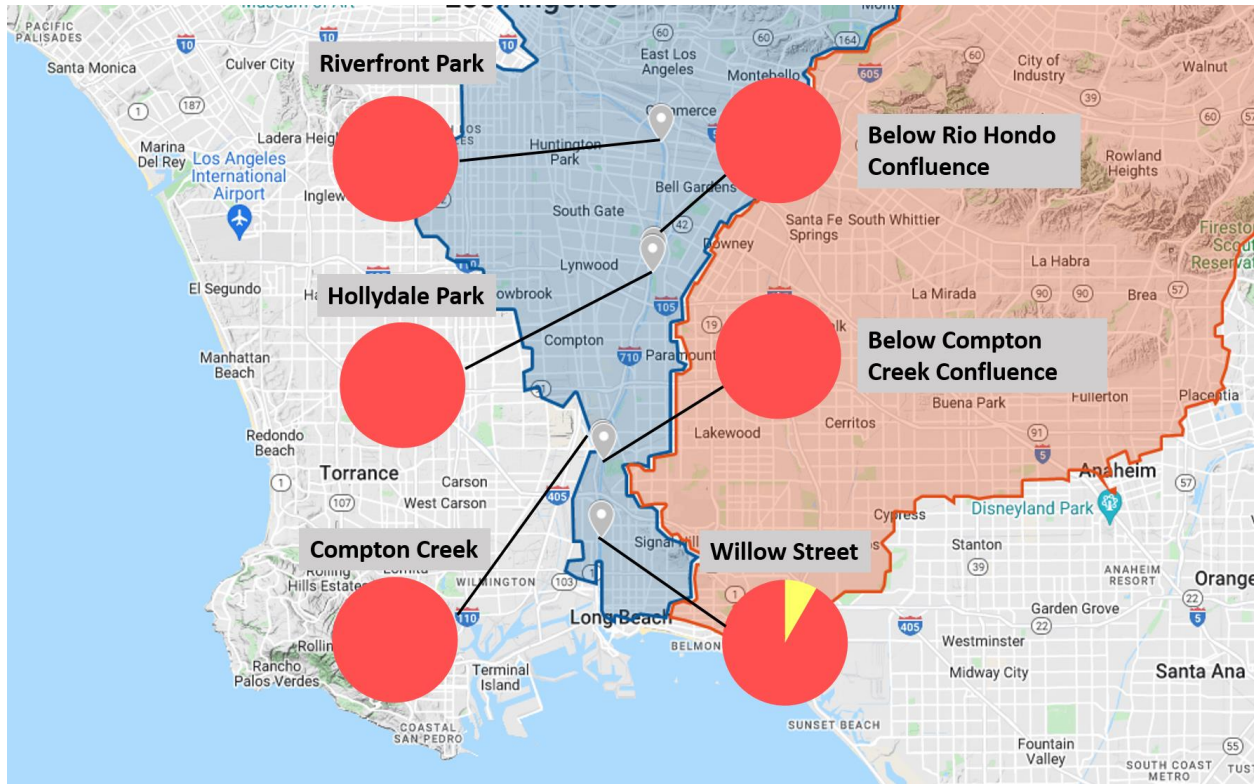




Site Name	Year	% Green Grades	% Yellow Grades	% Red Grades
Bull Creek	2017	44%	39%	17%
Millard Campground	2017	100%	0%	0%
Eaton Canyon	2017	94%	6%	0%
Big Tujunga at Delta Flat	2017	94%	6%	0%
Switzer Falls	2017	92%	8%	0%
Gould Mesa	2017	88%	0%	12%
Sturtevant Falls	2017	83%	11%	6%
Hermit Falls	2017	100%	0%	0%
Tujunga Wash at Hansen Dam	2017	35%	18%	47%
Bull Creek	2018	55%	25%	20%
Millard Campground	2018	90%	10%	0%
Eaton Canyon	2018	27%	45%	28%
Big Tujunga at Delta Flat	2018	100%	0%	0%
Switzer Falls	2018	95%	5%	0%
Gould Mesa	2018	56%	25%	19%
Sturtevant Falls	2018	86%	7%	7%
Hermit Falls	2018	100%	0%	0%
Tujunga Wash at Hansen Dam	2018	5%	15%	80%
Bull Creek	2019	33%	44%	22%
Millard Campground	2019	No Data	No Data	No Data
Eaton Canyon	2019	39%	56%	6%
Big Tujunga at Delta Flat	2019	No Data	No Data	No Data

Switzer Falls	2019	94%	6%	0%
Gould Mesa	2019	100%	0%	0%
Sturtevant Falls	2019	94%	6%	0%
Hermit Falls	2019	88%	6%	6%
Tujunga Wash at Hansen Dam	2019	44%	17%	39%
Hansen Dam Lake	2019	100%	0%	0%
Lake Balboa Lake Outlet	2019	80%	17%	3%
Lake Balboa Boat Ramp	2019	33%	23%	43%
Bull Creek	2020	25%	55%	20%
Millard Campground	2020	No Data	No Data	No Data
Eaton Canyon	2020	89%	11%	0%
Big Tujunga at Delta Flat	2020	No Data	No Data	No Data
Switzer Falls	2020	80%	10%	10%
Gould Mesa	2020	100%	0%	0%
Sturtevant Falls	2020	100%	0%	0%
Hermit Falls	2020	No Data	No Data	No Data
Tujunga Wash at Hansen Dam	2020	10%	10%	80%
Hansen Dam Lake	2020	100%	0%	0%
Lake Balboa Lake Outlet	2020	73%	13%	13%
Lake Balboa Boat Ramp	2020	67%	13%	20%
Big Tujunga Creek at Vogel Flats	2020	100%	0%	0%
Bull Creek	2021	17%	39%	44%
Millard Campground	2021	No Data	No Data	No Data
Eaton Canyon	2021	100%	0%	0%
Big Tujunga at Delta Flat	2021	78%	17%	6%
Switzer Falls	2021	75%	13%	13%
Gould Mesa	2021	72%	17%	11%
Sturtevant Falls	2021	No Data	No Data	No Data
Hermit Falls	2021	No Data	No Data	No Data
Tujunga Wash at Hansen Dam	2021	6%	0%	94%
Hansen Dam Lake	2021	100%	0%	0%
Lake Balboa Lake Outlet	2021	87%	4%	9%
Lake Balboa Boat Ramp	2021	40%	36%	23%
Big Tujunga Creek at Vogel Flats	2021	89%	11%	0%
Mill Creek at Hidden Springs	2021	100%	0%	0%

Lower L.A. River Watershed



Site Name	Year	% Green Grades	% Yellow Grades	% Red Grades
L.A. River at Riverfront Park	2021	0%	0%	100%
L.A. River Below Rio Hondo Confluence	2021	0%	0%	100%
L.A. River at Hollydale Park	2021	0%	0%	100%
L.A. River Below Compton Creek Confluence	2021	0%	0%	100%
Compton Creek	2021	0%	0%	100%
L.A. River at Willow Street	2021	0%	8%	92%

Appendix D: Table showing the change in the percentage points of Green grades from 2020 to 2021 for each site, each watershed, and L.A. County. Table also includes percentages of Green grades issued for each site, each watershed, and L.A. County. Changes in Green grade percentage points are rounded to the nearest whole number.

Site Name	Watershed	2020 % Green	2021 % Green	Change in Green Grade Percentage Points
Rattlesnake Park	L.A. River Watershed: Recreation Zone	15%	10%	-5
Benedict St. (Frogspot)	L.A. River Watershed: Recreation Zone	100%	60%	-40
L.A. River at Burbank Blvd.	L.A. River Watershed: Recreation Zone	31%	42%	11
L.A. River at Balboa Blvd.	L.A. River Watershed: Recreation Zone	78%	95%	17
Sepulveda Dam	L.A. River Watershed: Recreation Zone	89%	74%	-15
Sepulveda Basin middle	L.A. River Watershed: Recreation Zone	56%	47%	-8
Steelhead Park	L.A. River Watershed: Recreation Zone	64%	54%	-10
Las Virgenes	Malibu Creek Watershed	0%	15%	15
Rock Pool	Malibu Creek Watershed	64%	77%	13
Below North and West Forks	San Gabriel Watershed	62%	92%	30
East Fork at Cattle Canyon	San Gabriel Watershed	83%	100%	17
East Fork at Graveyard	San Gabriel Watershed	100%	100%	0
Lower North Fork	San Gabriel Watershed	100%	83%	-17

Lower West Fork	San Gabriel Watershed	88%	92%	3
Upper Cattle Canyon	San Gabriel Watershed	93%	92%	-2
Upper East Fork	San Gabriel Watershed	94%	100%	6
Upper North Fork	San Gabriel Watershed	100%	92%	-8
Upper West Fork	San Gabriel Watershed	94%	100%	6
Big Tujunga at Delta Flat	Upper L.A. River Watershed	No Data	78%	NA
Bull Creek	Upper L.A. River Watershed	25%	17%	-8
Eaton Canyon	Upper L.A. River Watershed	89%	100%	11
Gould Mesa	Upper L.A. River Watershed	100%	72%	-28
Tujunga Wash at Hansen Dam	Upper L.A. River Watershed	10%	6%	-4
Hermit Falls	Upper L.A. River Watershed	No Data	No Data	NA
Millard Campground	Upper L.A. River Watershed	No Data	No Data	NA
Sturtevant Falls	Upper L.A. River Watershed	100%	No Data	NA
Switzer Falls	Upper L.A. River Watershed	80%	75%	-5
Lake Balboa Boat Ramp	Upper L.A. River Watershed	67%	40%	-26
Lake Balboa Outlet	Upper L.A. River Watershed	73%	87%	14

Hansen Dam Lake	Upper L.A. River Watershed	100%	100%	0
Big Tujunga Creek at Vogel Flats	Upper L.A. River Watershed	100%	89%	-11
Mill Creek at Hidden Springs	Upper L.A. River Watershed	No Data	0%	NA
L.A. River at Riverfront Park	Lower L.A. River Watershed	No Data	0%	NA
L.A. River Below Rio Hondo Confluence	Lower L.A. River Watershed	No Data	0%	NA
L.A. River at Hollydale Park	Lower L.A. River Watershed	No Data	0%	NA
L.A. River Below Compton Creek Confluence	Lower L.A. River Watershed	No Data	0%	NA
Compton Creek	Lower L.A. River Watershed	No Data	0%	NA
L.A. River at Willow Street	Lower L.A. River Watershed	No Data	0%	NA
Malibu Creek Watershed		32%	46%	14
L.A. River Watershed: Recreation Zones		59%	55%	-4
San Gabriel River Watershed		91%	94%	3
Upper L.A. River Watershed		67%	66%	-1
Lower L.A. River Watershed		No Data	0%	NA
All Sites in L.A. County		70%	59%	-11

Appendix E. *E. coli* and *Enterococcus* levels* in Malibu Creek Watershed sites. Sample size, single sample exceedance number and rate, bacteria range, and geometric mean are shown for each site and year.

Site	Year	n	<i>E. coli</i>				<i>Enterococcus</i>			
			No. single sample (ss) exceedances ^a	% ss exceedances ^a	Range (min-max) (MPN/100 ml)	Geometric Mean (MPN/100 mL) ^b	No. single sample (ss) exceedances ^c	% ss exceedances ^c	Range (min-max) (MPN/100 ml)	Geometric Mean (MPN/100 mL) ^d
<i>Rock Pool</i>	2014	18	2	11%	5 – 2462	41	4	22%	5-857	30
	2015	14	0	0%	5 – 98	19	1	7%	5-119	22
	2016	15	3	20%	5 – 5493	35	2	13%	5 – 233	31
	2017	17	2	12%	5 – 275	22	3	18%	5 – 156	37
	2018	14	0	0%	5 – 144	19	2	14%	5 – 1223	29
	2019	16	1	6%	5-414	19	3	19%	5-383	34
	2020	14	0	0%	5-216	21	1	7%	5-185	23
	2021	13	2	15%	5-3654	59	0	0%	5-74	21
<i>Las Virgenes Creek</i>	2014	18	5	28%	10 – 1500	82	11	61%	52-611	159
	2015	14	5	36%	30 – 2909	170	11	79%	23-1850	218
	2016	15	4	27%	10 – 2333	151	8	53%	36-620	122
	2017	17	3	18%	20 – 379	80	6	35%	10-197	69
	2018	14	2	14%	5 – 417	71	9	64%	63-24196	216
	2019	16	0	0%	10-171	47	12	75%	20-373	150
	2020	14	1	7%	10-259	59	13	93%	97-332	205
	2021	13	4	31%	41-2014	145	9	69%	31-706	136

* Samples below the detection level (of 10 MPN/100ml) were set to the value of 5 MPN/100ml and samples over the detection limit of >24196 MPN/100ml were set to the value of 24200 MPN/100ml.

^a Based on the State Water Board Basin Plan limit of 235 MPN/100ml.

^b Bolded values are over the Basin Plan's geometric mean limit of 126 MPN/100ml.

^c Based on the EPA STV of 110 MPN/100ml.

^d Bolded values are over EPA's geometric mean threshold of 30 MPN/100ml.

Appendix F. *E. coli* levels* in San Gabriel River Watershed Sites. Sample size, single sample exceedance number and rate, bacteria range, and geometric mean are shown for each site and year.

E. coli

Site	Year	n	No. single sample (ss) exceedances ^a	% ss exceedances ^a	Range (min-max) (MPN/100ml)	Geometric Mean (MPN/100 mL) ^b
<i>Upper North Fork</i>	2017	18	3	17%	5-7270	27
	2018	17	0	0%	5-90	15
	2019	20	1	5%	5-529	17
	2020	17	0	0%	5-51	13
	2021	12	1	8%	5-1483	32
<i>Lower North Fork</i>	2017	18	5	28%	10-14136	187
	2018	17	5	29%	5-12997	122
	2019	20	1	5%	5-465	37
	2020	16	0	0%	10-187	42
	2021	12	1	8%	10-1259	82
<i>Upper West Fork</i>	2017	18	0	0%	10-109	24
	2018	17	1	6%	5-836	27
	2019	20	0	0%	1-110	14
	2020	17	1	0.06	5-400	37
	2021	12	0	0%	10-203	30
<i>Lower West Fork</i>	2017	18	3	17%	5-5,75	45
	2018	17	5	29%	10-12033	110
	2019	20	0	0%	5-146	25
	2020	17	2	0.12	5-1616	76
	2021	12	1	8%	5-473	23

<i>Upper East Fork</i>	2017	17	0	0%	5-63	23
	2018	17	0	0%	5-86	15
	2019	20	0	0%	5-31	9
	2020	17	1	0.06	5-512	24
	2021	12	0	0%	5-120	15
<i>Upper Cattle Canyon</i>	2017	18	0	0%	5-52	12
	2018	17	0	0%	5-122	24
	2019	20	0	0%	5-122	11
	2020	15	1	0.07	10-323	28
	2021	12	1	8%	5-350	15
<i>East Fork at Cattle Canyon</i>	2017	18	1	6%	5-591	42
	2018	17	0	0%	5-146	23
	2019	20	2	10%	5-24196	35
	2020	12	2	0.17	10-1872	63
	2021	12	0	0%	5-146	24
<i>East Fork at Graveyard</i>	2017	18	2	11%	10-813	50
	2018	17	1	6%	10-496	35
	2019	20	0	0%	5-63	17
	2020	17	0	0.00	5-120	28
	2021	12	0	0%	5-109	15
<i>Below North & West Forks</i>	2017	18	3	17%	10-2046	101
	2018	16	3	19%	10-1850	75
	2019	20	3	15%	5-2064	38
	2020	13	4	0.31	5-2143	80
	2021	12	1	8%	10-285	48

* Samples below the detection level (of 10 MPN/100ml) were set to the value of 5 MPN/100ml and samples over the detection limit of >24196 MPN/100ml were set to the value of 24200 MPN/100ml.

^a Based on the State Water Board Basin Plan limit of 235 MPN/100ml.

^b Bolded values are over the Basin Plan's geometric mean limit of 126 MPN/100ml.

Appendix G. *E. coli* and *Enterococcus* levels* in L.A. River Recreation sites. Sample size, single sample exceedance number and rate, bacteria range, and geometric mean are shown for each site and year. Some sites were not monitored for *Enterococcus*.

			E. coli				Enterococcus			
Site	Year	n	No. single sample (ss) exceedances ^a	% ss exceedances ^a	Range (min-max) (MPN/100 ml)	Geometric Mean (MPN/100 mL) ^b	No. single sample (ss) exceedances ^c	% ss exceedances ^c	Range (min-max) (MPN/100 ml)	Geometric Mean (MPN/100 mL) ^d
<i>L.A. River at Balboa</i>	2017	21	12	57%	41-24200	339				
	2018	40	4	10%	10-538	68				
	2019	32	3	9%	19860	88				
	2020	19	4	0.21	10-350	85				
	2021	38	2	5%	5-246	41				
<i>Sepulveda Basin Middle</i>	2017	21	8	38%	41-24200	278				
	2018	40	16	40%	20-836	188				
	2019	32	6	19%	10-24200	138				
	2020	19	4	0.21	31-432	120				
	2021	38	7	18%	20-613	138				
<i>L.A. River at Burbank</i>	2015	10	2	20%	30-605	110	5	50%	20-1839	185
	2016	18	0	0	20-173	66	1	6%	10-324	53
	2017	21 (20)	8	38%	41-25000	270	5	25%	5-5475	66

	2018	19	2	11%	10-958	121	12	63%	20-677	110
	2019	16	1	6%	10-374	77	6	38%	10-1481	93
	2020	13	1	0.08	31-259	84	3	23%	10-345	62
	2021	12	0	0%	10-233	39	1	8%	10-223	51
<i>Sepulveda Dam</i>	2017	21	5	24%	30-24200	187				
	2018	40	0	0	10-228	89				
	2019	32	5	16%	20-24200	128				
	2020	19	1	0.05	41-1380	99				
	2021	38	3	8%	10-823	80				
<i>Rattlesnake Park</i>	2015	12	8	67%	169-3448	312	11	92%	110-2755	401
	2016	18	10	56%	75-959	239	18	100%	121-7486	650
	2017	42 (25)	14	33%	10-11200	187	12	48%	5-4611	96
	2018	60 (19)	25	42%	74-1376	220	14	74%	51-2755	217
	2019	54	21	39%	51-24196	236	7	44%	20-7701	168
	2020	33	12	0.36	41-960	170	11	0.33	41-24200	347
	2021	52	20	38%	31-1790	204	11	21%	74-443	213
<i>Benedict St.</i>	2016	6	0	0	84-175	122	5	83%	41-563	231
	2017	22	6	27%	5-15531	113	9	41%	5-1046	71
	2018	60 (19)	6	10%	20-767	112	13	68%	73-1421	169

	2019	54	8	15%	10-19863	85	7	44%	20-9208	108
	2020	20	0	0.00	10-233	59				
	2021	51	2	4%	10-613	77	10	20%	52-455	155
<i>Steelhead Park</i>	2015	11	1	9%	84-487	157	10	91%	110-1935	337
	2016	18	0	0	31-199	104	11	61%	57-435	151
	2017	42	10	24%	31-25000	205	12	48%	5-2035	105
	2018	60	8	13%	5-5170	123	10	53%	20-355	100
	2019	53	5	9%	5-24196	109	3	19%	5-771	59
	2020	33	3	0.09	5-455	50	4	12%	31-305	70
	2021	52	7	13%	30-886	112	9	17%	31-323	124

* Samples below the detection level (of 10 MPN/100ml) were set to the value of 5 MPN/100ml and samples over the detection limit of >24196 MPN/100ml were set to the value of 24200 MPN/100ml.

^a Based on the State Water Board Basin Plan limit of 235 MPN/100ml.

^b Bolded values are over the Basin Plan's geometric mean limit of 126 MPN/100ml.

^c Based on the EPA STV of 110 MPN/100ml.

^d Bolded values are over EPA's geometric mean threshold of 30 MPN/100ml.

Appendix H. *E. coli* levels* in LA River Watershed Sites. Sample size, single sample exceedance number and rate, bacteria range, and geometric mean are shown for each site and year.

			<i>E. coli</i>			
Site	Year	n	No. single sample (ss) exceedances^a	% ss exceedances^a	Range (min-max) (MPN/100ml)	Geometric Mean (MPN/100 mL)^b
<i>Bull Creek</i>	2017	18	5	28%	41-10500	174
	2018	20	4	20%	10-586	134
	2019	20	5	25%	31-683	175
	2020	22	4	0.18	62-473	162
	2021	18	9	50%	20-882	194
<i>Millard Campground</i>	2017	15	0	0%	5-75	19
	2018	20	2	10%	10-12997	31
	2019		No Data	No Data	No Data	No Data
	2020		No Data	No Data	No Data	No Data
	2021		No Data	No Data	No Data	No Data
<i>Eaton Canyon</i>	2017	18	1	6%	5-350	50
	2018	11	4	36%	20-3610	220
	2019	20	5	25%	10-5790	148
	2020	10	1	0.10	5-323	18
	2021	16	0	0%	5-63	18
<i>Big Tujunga at Delta Flat</i>	2017	17	1	6%	5-256	31
	2018	19	0	0%	10-148	62
	2019		No Data	No Data	No Data	No Data
	2020		No Data	No Data	No Data	No Data
	2021	18	3	17%	10-884	73

<i>Switzer Canyon</i>	2017	13	0	0%	10-203	71
	2018	20	1	5%	10-676	50
	2019	20	1	5%	5-683	20
	2020	11	3	0.27	10-2490	80
	2021	16	3	19%	5-9800	62
<i>Gould Mesa</i>	2017	8	1	13%	20-836	64
	2018	16	4	25%	20-1110	97
	2019	19	0	0%	5-52	11
	2020	12	0	0.00	10-216	50
	2021	18	3	17%	5-1330	75
<i>Sturtevant Falls</i>	2017	18	3	17%	5-794	44
	2018	14	2	14%	10-990	51
	2019	18	1	6%	10-315	51
	2020	10	1	0.10	10-262	46
	2021		No Data	No Data	No Data	No Data
<i>Hermit Falls</i>	2017	18	0	0%	5-75	17
	2018	20	0	0%	10-110	33
	2019	19	2	11%	5-373	42
	2020		No Data	No Data	No Data	No Data
	2021		No Data	No Data	No Data	No Data
<i>Tujunga Wash at Hansen Dam</i>	2017	17	9	53%	41-1270	266
	2018	20	16	80%	109-1620	456
	2019	20	9	45%	10-4880	199

	2020	22	18	0.82	148-1480	418
	2021	18	17	94%	231-9210	864
<i>L.A. River at Balboa</i>	2017	21	12	57%	41-24200	339
	2018	40	4	10%	10-538	68
	2019	32	3	9%	20-19860	88
	2020	19	4	0.21	10-350	85
	2021	38	2	5%	5-246	41
<i>Sepulveda Basin Middle</i>	2017	21	8	38%	41-24200	278
	2018	40	16	40%	20-836	188
	2019	32	6	19%	10-24200	138
	2020	19	4	0.21	31-432	120
	2021	38	7	18%	20-613	138
<i>Sepulveda Dam</i>	2017	21	5	24%	30-24200	187
	2018	40	0	0%	10-228	89
	2019	32	5	16%	20-24200	128
	2020	19	1	0.05	41-1380	99
	2021	38	3	8%	10-823	80
<i>Hansen Dam Lake</i>	2019	20	0	0%	5-73	8
	2020	22	0	0.00	5-41	7
	2021	19	0	0%	5-52	8
<i>Lake Balboa Outlet</i>	2019	30	5	17%	5-359	73
	2020	19	2	0.11	20-496	94
	2021	23	3	13%	10-313	73

<i>Lake Balboa Boat Ramp</i>	2019	30	16	53%	20-5790	232
	2020	19	7	0.37	10-1610	150
	2021	47	13	28%	20-689	155
<i>Vogel Flats</i>	2020	8	0	0.00	5-110	21
	2021	18	2	11%	5-327	25
<i>Hidden Springs</i>	2021	18	0	0%	5-31	7

* Samples below the detection level (of 10 MPN/100ml) were set to the value of 5 MPN/100ml and samples over the detection limit of >24196 MPN/100ml were set to the value of 24200 MPN/100ml.

^a Based on the State Water Board Basin Plan limit of 235 MPN/100ml.

^b Bolded values are over the Basin Plan's geometric mean limit of 126 MPN/100ml.

Appendix I. *E. coli* and *Enterococcus* levels* in Lower L.A. River sites from 2021. Sample size, single sample exceedance number and rate, bacteria range, and geometric mean are shown for each site and year.

Site	Year	n	E. coli				Enterococcus			
			No. single sample (ss) exceedances ^a	% ss exceedances ^a	Range (min-max) (MPN/100 ml)	Geometric Mean (MPN/100 mL) ^b	No. single sample (ss) exceedances ^c	% ss exceedances ^c	Range (min-max) (MPN/100 ml)	Geometric Mean (MPN/100 mL) ^d
<i>Riverfront Park</i>	2021	12	12	100%	134-24200	6019	12	100%	1354-24200	4084
<i>Below Rio Hondo Confluence</i>	2021	11	11	100%	749-9804	2458	10	91%	12-5475	1132
<i>Hollydale Park</i>	2021	12	12	100%	683-8664	2258	12	100%	594-5794	1821
<i>Compton Creek</i>	2021	12	12	100%	262-12033	1596	11	92%	96-15531	1674
<i>Compton Creek Confluence</i>	2021	12	12	100%	388-15531	2220	12	100%	187-11199	1088
<i>Willow St.</i>	2021	12	11	92%	221-17329	1956	11	92%	52-7701	780

* Samples below the detection level (of 10 MPN/100ml) were set to the value of 5 MPN/100ml and samples over the detection limit of >24196 MPN/100ml were set to the value of 24200 MPN/100ml.

^a Based on the State Water Board Basin Plan limit of 235 MPN/100ml.

^b Bolded values are over the Basin Plan's geometric mean limit of 126 MPN/100ml.

^c Based on the EPA STV of 110 MPN/100ml.

^d Bolded values are over EPA's geometric mean threshold of 30 MPN/100ml.

Appendix J. Fecal Indicator Bacteria levels* for L.A. River Storm Drain Outfalls in Elysian Valley. Sample size, single sample exceedance number and rate, bacteria range, and geometric mean are shown for each site and year.

			E. coli				Enterococcus			
Site	Year	n	No. single sample (ss) exceedances^a	% ss exceedances^a	Range (min-max) (MPN/100 ml)	Geometric Mean (MPN/100 mL)^b	No. single sample (ss) exceedances^c	% ss exceedances^c	Range (min-max) (MPN/100 ml)	Geometric Mean (MPN/100 mL)^d
<i>SDR8</i>	2018	3	0	0	5-5	5	0	0	10-51	28
	2019	5	1	20%	10-882	39	2	50%	41-373	138
<i>SDR10</i>	2017	12	5	42%	5-3348	215	10	83%	52-15531	1073
	2018	8	4	50%	30-6488	329	6	75%	74-6488	873
	2019	7	3	43%	20-1086	150	6	86%	63-4884	485
<i>SDR13</i>	2018	4	1	25%	5-1670	21	1	25%	5-386	55
	2019		No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
<i>SDR18</i>	2018	2	2	100%	2723-24196	8117	2	100%	8664-25000	14717
	2019		No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
<i>SDR20</i>	2017	5	5	100%	2784-25000	9658	5	100%	15531-25000	22581
	2018	6	5	83%	97-25000	3604	6	100%	3448-25000	10920
	2019	2	2	100%	305-5794	1329	2	100%	5493-24196	11529

<i>SDR25</i>	2017	1	0	0	10	NA	1	100%	1354	NA
	2019	1	1	100%	908	NA	1	100%	402	NA
<i>Fletcher</i>	2017	21	8	38%	5-9808	167	13	62%	5-24196	237
	2018	16	14	87%	110-25000	2582	16	100%	1246-25000	10032
	2019	16	16	100%	305-24196	1869	15	100%	414-24196	6224
	2020	13	11	85%	156-24200	1735	13	100%	1112-24200	9600
	2021	15	13	87%	183-24200	3940	15	100%	2282-24200	12380
<i>SDR30</i>	2017	10	7	70%	63-15531	636	9	90%	63-2247	342
	2018	8	6	75%	41-15531	1121	8	100%	131-2014	308
	2019	11	6	55%	63-988	242	8	73%	75-677	188
<i>SDL10</i>	2017	12	12	100%	512-25000	4412	12	100%	144-25000	5583
	2018	3	3	100%	246-25000	2715	3	100%	7701-17329	12015
	2019	7	7	100%	455-24196	3934	7	100%	1727-24196	10649
<i>SDL15</i>	2017	1	1	100%	25000	NA	1	100%	25000	NA
	2019	2	1	50%	226-24196	2338	1	50%	3255-24196	8875
<i>SDL20</i>	2107	1	1	100%	2415	NA	1	100%	9208	NA
	2019	3	3	100%	323-480	416	3	100%	364-24196	1680

<i>SDL30</i>	2017	12	12	100%	364-25000	2734	12	100%	2012-25000	7237
	2018	8	8	100%	1017-25000	5864	8	100%	171-25000	9256
	2019	11	10	91%	211-24196	2845	11	100%	1565-24196	9647
<i>SDL40</i>	2017	12	12	100%	327-12997	1366	12	100%	581-8664	1944
	2018	8	5	62%	5-14136	219	4	50%	5-6867	192
	2019	11	10	91%	161-8164	1289	11	100%	594-14136	3375
<i>SDL50</i>	2017	12	12	100%	269-25000	1150	11	92%	63-25000	1721
	2018	8	8	100%	269-3968	1373	8	100%	934-6488	1800
	2019	11	11	100%	435-24196	1695	11	100%	1467-24196	6348

* Samples below the detection level (of 10 MPN/100ml) were set to the value of 5 MPN/100ml and samples over the detection limit of >24196 MPN/100ml were set to the value of 25000 MPN/100ml.

^a Based on the State Water Board Basin Plan limit of 235 MPN/100ml.

^b Bolded values are over the Basin Plan's geometric mean limit of 126 MPN/100ml.

^c Based on the EPA STV of 110 MPN/100ml.

^d Bolded values are over EPA's geometric mean threshold of 30 MPN/100ml.