

**Supplementary Material Table S1.** Waterbodies with the highest representation ( $\geq 10$ ) in the study data.

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9
Klamath River	52								
Trinity Lake/River	35								
Russian River	23								
Pyramid Lake				11					
Clear Lake					113				
Lake Isabella					51				
Discovery Bay					37				
Lake/Lagoon Tahoe						18			
Silverwood Lake						12			
Salton Sea							41		
Wister Wildlife Wetland							10		
Lake Elsinore								28	
Big Bear Lake								23	
Prado Lake								13	
San Diego River									17
Lake Henshaw									15
Others	99	32	19	14	397	48	12	58	35
TOTAL <sup>a</sup>	209	76	51	40	598	125	63	122	34

<sup>a</sup> Grand total, includes waterbodies not listed.

**Supplementary Material Table S2.** Strength of the relationships among four selected variables relating to HAB observations on inland waterbodies in California.

	HABs Sighting	Land Area (LA)	River/Stream (RS)	Lake/Pond/Reservoir (LPR)	Population <sup>a</sup>
HABs Sighting	-	5.59E-03	3.46E-03	1.36E-03	<b>0.476</b>
Land Area	0.901	-	2.01E-05	4.12E-05	<b>0.206</b>
River/Stream	0.919	0.990	-	1.99E-04	<b>0.211</b>
Lake/Reservoir	0.944	0.986	0.974	-	<b>0.303</b>
Population <sup>a</sup>	<b>-0.326</b>	<b>-0.545</b>	<b>-0.540</b>	<b>-0.457</b>	-

Below diagonal: Linear  $r$  (Pearson); above diagonal:  $p$ (uncorrelated).

<sup>a</sup> Population density uncorrelated with high probability ( $p$ (uncorrelated)  $> 0.05$ ).

**Supplementary Material Table S3.** Strength of the relationships among California's nine water quality regions based on 2016-2020 on HAB observations on inland waterbodies.

	Region 1	Region 2	Region 3 <sup>a</sup>	Region 4	Region 5	Region 6	Region 7 <sup>a</sup>	Region 8	Region 9
Region 1	-	0.006	<b>0.165</b>	0.034	0.027	0.028	<b>0.224</b>	0.012	0.037
Region 2	-0.994 <sup>b</sup>	-	<b>0.227</b>	0.012	0.009	0.010	<b>0.160</b>	0.001	0.014
Region 3 <sup>a</sup>	<b>0.835</b>	<b>-0.773</b>	-	<b>0.325</b>	<b>0.291</b>	<b>0.318</b>	<b>0.683</b>	<b>0.254</b>	<b>0.344</b>
Region 4	-0.966 <sup>b</sup>	0.988	-0.675	-	0.002	0.009	<b>0.088</b>	0.006	0.004
Region 5	0.973	-0.991 <sup>b</sup>	0.709	-0.998 <sup>b</sup>	-	0.014	<b>0.106</b>	0.004	0.009
Region 6	0.972	-0.990 <sup>b</sup>	0.682	-0.991 <sup>b</sup>	0.986	-	<b>0.110</b>	0.008	0.002
Region 7 <sup>a</sup>	<b>0.776</b>	<b>-0.840</b>	<b>0.317</b>	<b>-0.912</b>	<b>0.894</b>	<b>0.890</b>	-	<b>0.136</b>	<b>0.087</b>
Region 8	-0.988 <sup>b</sup>	0.999	-0.746 <sup>b</sup>	0.994	-0.996 <sup>b</sup>	-0.992 <sup>b</sup>	-0.864 <sup>b</sup>	-	0.009
Region 9	-0.963 <sup>b</sup>	0.986	-0.656 <sup>b</sup>	0.996	-0.991 <sup>b</sup>	-0.998 <sup>b</sup>	-0.913 <sup>b</sup>	0.991	-

Below diagonal: Linear  $r$  (Pearson); above diagonal:  $p$ (uncorrelated).

<sup>a</sup> Uncorrelated with high probability ( $p$ (uncorrelated)  $> 0.05$ ).

<sup>b</sup> Negative bivariate correlation with high probability ( $p$ (uncorrelated)  $< 0.05$ ).