

US EPA ARCHIVE DOCUMENT

Summary of Target Population Status and Extent Estimates for Upper Wabash River Basin Example.

**Estimates of Target Population Extent**

Sum of stream reaches within RF3 (km)	7358.15
Portion of Target Population within Sample Frame	5707.25
Portion of Target Population within Sampled Population	3414.18

**Population Extent estimates made for each Site Category**

(Summary of information in R output file: sitestatusum.csv)

- Provides estimate of the Target Population extent if it is not known
- Provides estimate of the Sample Frame over-coverage extent, i.e., how much too large is Frame
- Provides estimate of percent of Target Population that is expected to have landowners deny access

Category	No. Sites	Percent Resource	LCB 95%	UCB 95%	Extent(km)	LCB 95%	UCB 95%
Target Sampled	48	46.44	36.54	56.34	3417.168	2688.32	4146.016
Landowner Denial	19	17.88	10.51	25.25	1315.41	773.09	1857.73
Physical Barrier	7	5.54	0.89	10.20	407.90	65.40	750.39
Over-Target	2	1.14	0.009	2.60	84.100	0.00	191.56
Sampled Chemistry No Biology	14	6.56	3.30	9.82	482.68	242.73	722.621
Non-Target	9	22.08	12.24	31.92	1624.50	900.30	2348.69
UnKnown	1	0.36	0.00	0.94	26.408	0.00	68.94
Total	100	100.00	NA	NA	7358.15	NA	NA
Target Pop	90	77.56	67.72	87.41	5707.25	4982.98	6431.52
Non-Target	10	22.44	12.59	32.30	1650.90	926.63	2375.16
Total	100	100.000	NA	NA	7358.15	NA	NA

**Estimates based on Target Sampled sites applied to the Sampled Population**

(Summary of information in R output file: ibiqheisum.csv)

Indicator	Status	No. Sites	Percent Resource	LCB 95%	UCB 95%	Extent (km)	LCB 95%	UCB 95%
IBI	Impaired	12	12.85	6.42	19.28	945.20	453.42	1436.99
	Not Impaired	36	33.59	23.91	43.28	2471.96	1700.53	3243.39
	NS	52	53.56	43.65	63.46	3940.99	2984.96	4897.01
	Total	100	100.00	NA	NA	7358.15	NA	NA
QHEI	Impaired	14	19.00	10.39	27.60	1397.69	710.61	2084.77
	Not Impaired	34	27.44	18.37	36.52	2019.47	1346.60	2692.34
	NS	52	53.56	43.65	63.46	3940.99	2984.96	4897.01
	Total	100	100.00	NA	NA	7358.15	NA	NA

**Estimates based on Target Sampled sites applied to the portion of Target Population within the Sample Frame**

Estimates based on Target Sampled sites can be applied to the portion of Target Population within the Sample Frame **ONLY IF** one assumes that the Access Denied, Target Not-Sampled, etc., sites occurred randomly and independently of site characteristics.

Indicator	Status	No. Sites	Percent Resource	LCB 95%	UCB 95%	Extent (km)	LCB 95%	UCB 95%
IBI	Impaired	12	27.66	14.69	40.63	1578.66	768.13	2389.18
	Not Impaired	36	72.34	59.37	85.31	4128.60	2994.56	5262.63
	Total	48	100.00	NA	NA	5707.25	NA	NA
QHEI	Impaired	14	40.90	24.60	57.20	2334.39	1166.963	3501.82
	Not Impaired	34	59.10	42.80	75.39	3372.86	2382.44	4363.28
	Total	48	100.000	NA	NA	5707.25	NA	NA