



Recovery Potential Screening Tool: Introduction and Overview

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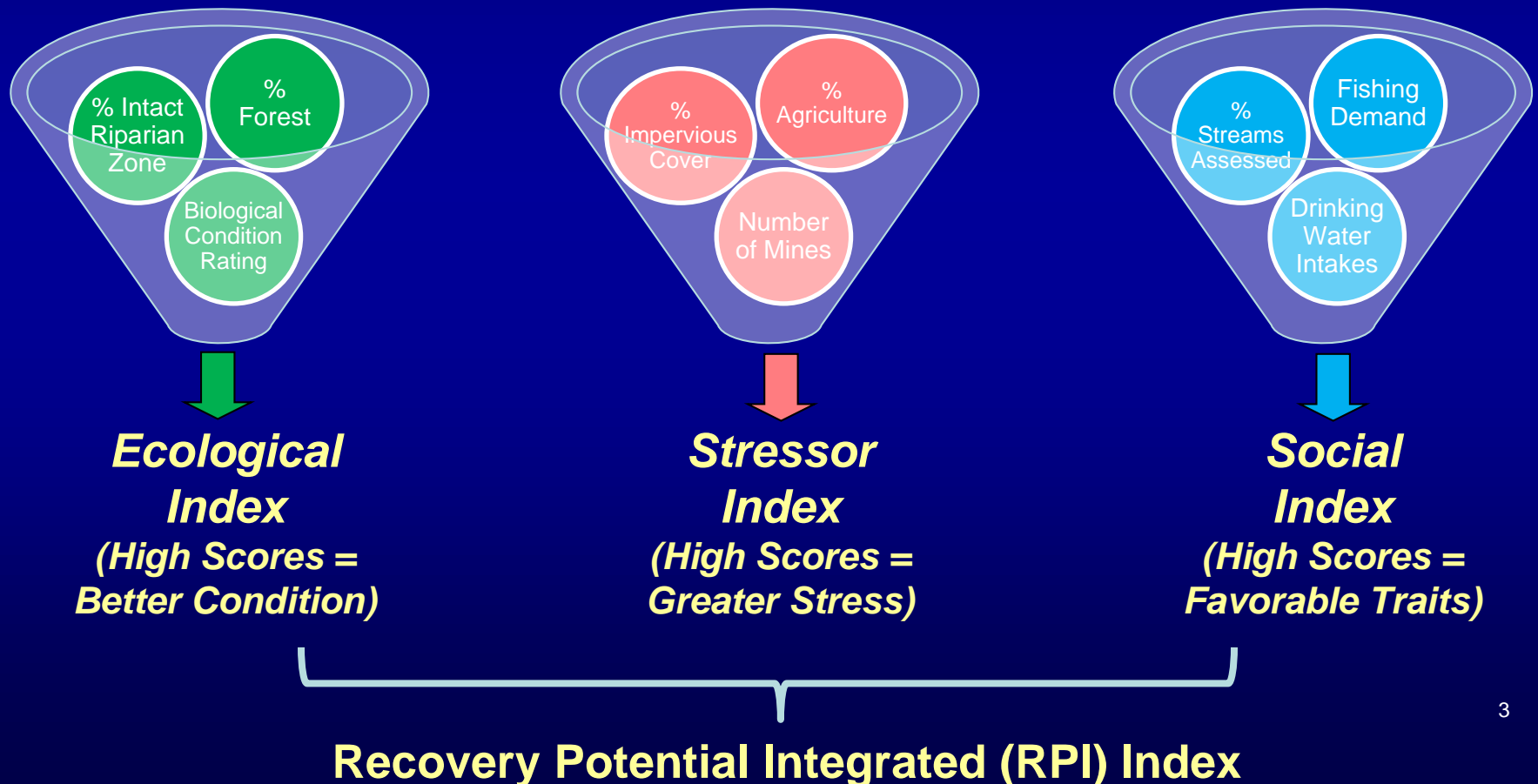
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About Recovery Potential Screening (RPS)

- Framework for comparing watersheds based on condition and other relevant factors for priority-setting
- Systematic but allows for flexibility in answering different management questions
- The RPS Tool is an easy to use, custom Excel file with pre-loaded data on hundreds of indicators

Recovery Potential Screening - Basic Concepts

- **Indicator-based** method for watershed comparison and priority-setting
- Indicators are combined into **Index Scores** – overall picture of ecological, stressor, and social characteristics



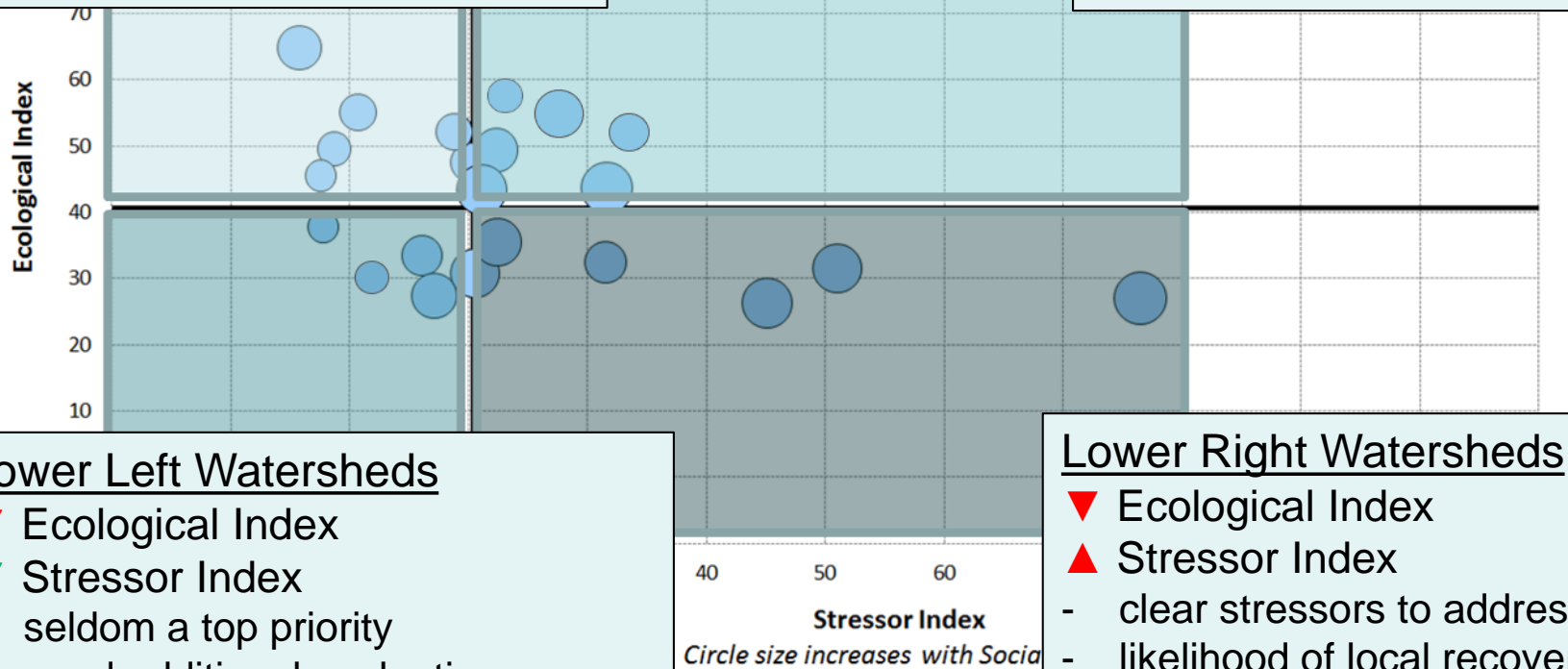
Applying RPS Results

Upper Left Watersheds

- ▲ Ecological Index
- ▼ Stressor Index
- best condition
- maybe more responsive to restoration/protection

Upper Right Watersheds

- ▲ Ecological Index
- ▲ Stressor Index
- still in good condition
- but higher stressor levels, possibly more threatened



Lower Left Watersheds

- ▼ Ecological Index
- ▼ Stressor Index
- seldom a top priority
- need additional evaluation

Lower Right Watersheds

- ▼ Ecological Index
- ▲ Stressor Index
- clear stressors to address
- likelihood of local recovery may be low

RPS Scoring Tool

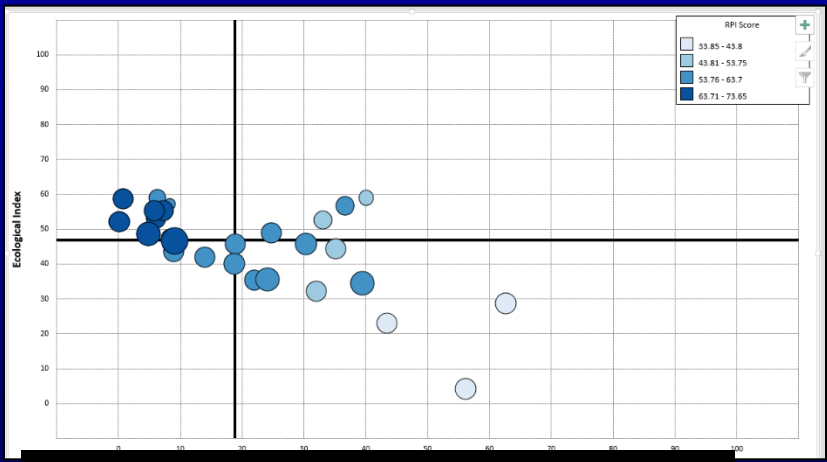
Requires only spreadsheet skills to run screenings and review results

Hydrologic Unit Code 12-Digit (HUC12)	Name HUC12 Watershed	Area Of Watershed (HUC12) In Square Meters (Grid)	% Riparian Zone (RZ) in Watershed	% Hydrologically Connected Zone (HCZ) in Watershed	% Water in Watershed	% Land in Watershed	Watershed NHDPlus2 Streamlength	Watershed NHDPlus2
020401010305	Sherman Creek-Lower West Branch Delaware River	95209200.0000	19.9238	9.3980	4.6603	95.3397	63.9700	
020401010307	Balls Creek-Lower West Branch Delaware River	94473000.0000	23.8668	10.6992	5.4330	94.5670	62.9300	
020401010401	Upper Equinunk Creek	60305400.0000	37.8906	16.1001	10.3274	89.6726	39.2700	2.0300 03.00
020401010402	Lower Equinunk Creek	88650900.0000	25.3886	13.2222	6.7603	93.2397	43.2100	1.5600 03.00
020401010403	Factory Creek-Delaware River	57411900.0000	20.0843	12.0095	5.3694	94.6399	33.8900	0.6000 02.00
020401010405	Little Equinunk Creek	64941300.0000						
020401010406	Pea Brook-Delaware River	93491100.0000						
020401010501	Hankins Creek-Delaware River	108261900.0000						
020401010506	Beaverdam Creek-Delaware River	63308700.0000						
020401010601	North Branch Calkins Creek	55646100.0000						
020401010602	South Branch Calkins Creek	58320900.0000						
020401010604	Peggy Run-Delaware River	98454600.0000						
020401010605	Masthops Creek	80787600.0000						

Watershed indicators

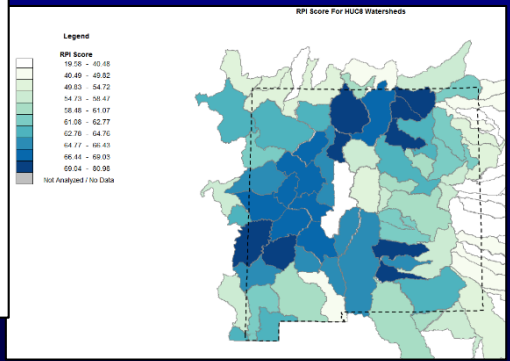
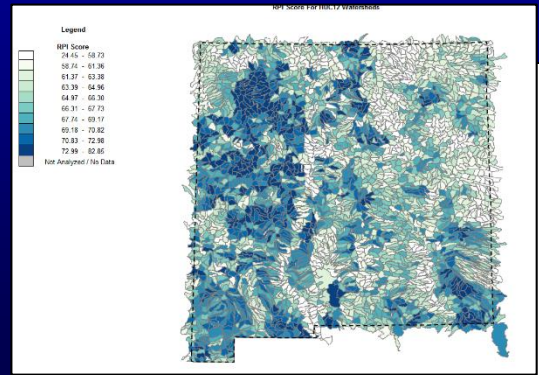
Watershed Name	Ecological Index	Ecological Rank	Stressor Index	Stressor Rank	Social Index	Social Rank	RPI Score	RPI Rank
Sherman Creek-Lower West Branch Delaware River	49.18	474	6.63	199	14.57	1385	52.37	790
Balls Creek-Lower West Branch Delaware River	48.84	504	12.20	388	31.60	1300	56.08	499
Upper Equinunk Creek	49.14	476	12.70	413	33.33	776	56.59	466
Lower Equinunk Creek	50.66	361	6.33	192	33.33	776	59.22	244
Factory Creek-Delaware River	51.48	300	5.50	172	21.00	1360	55.66	534
Little Equinunk Creek	48.50	534	9.33	284	33.33	776	57.50	382
Pea Brook-Delaware River	51.74	278	3.15	106	6.33	1426	51.64	850
Hankins Creek-Delaware River	49.82	422	8.35	252	14.37	1387	51.95	826
Beaverdam Creek-Delaware River	47.40	616	9.58	293	24.37	1342	54.06	651
North Branch Calkins Creek	46.28	705	16.00	531	33.33	776	54.54	619
Calkins Creek	46.10	728	18.10	616	33.33	776	53.78	681
Delaware River	49.54	444	7.23	212	15.53	1378	52.62	772
West Branch Delaware River	52.10	255	7.43	218	33.33	776	59.34	238
Pea Brook-Delaware River	51.00	333	3.98	132	15.17	1381	54.06	651
Little Equinunk Creek	46.80	665	18.73	646	33.33	776	53.80	675
Upper Equinunk Creek	47.15	641	19.13	662	33.33	776	53.79	678
West Branch Lackawaxen River	46.20	715	18.48	635	33.33	776	53.69	688
Peggy Run-Delaware River	49.74	427	6.35	193	33.33	776	58.91	267
West Branch Dyberry Creek	50.00	411	12.15	384	33.33	776	57.06	421

Auto-calculated index scores & ranks



Customizable graphs

Customizable maps

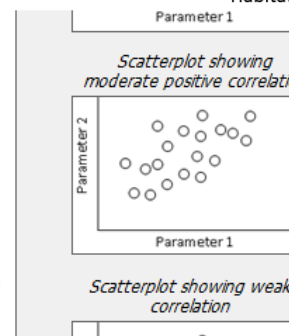
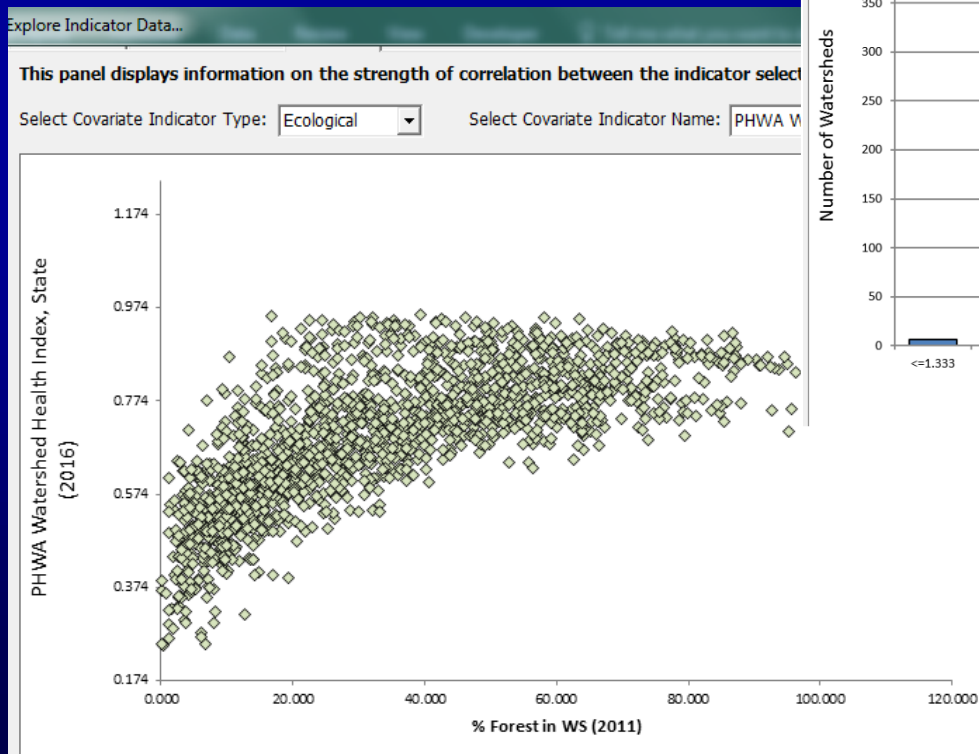
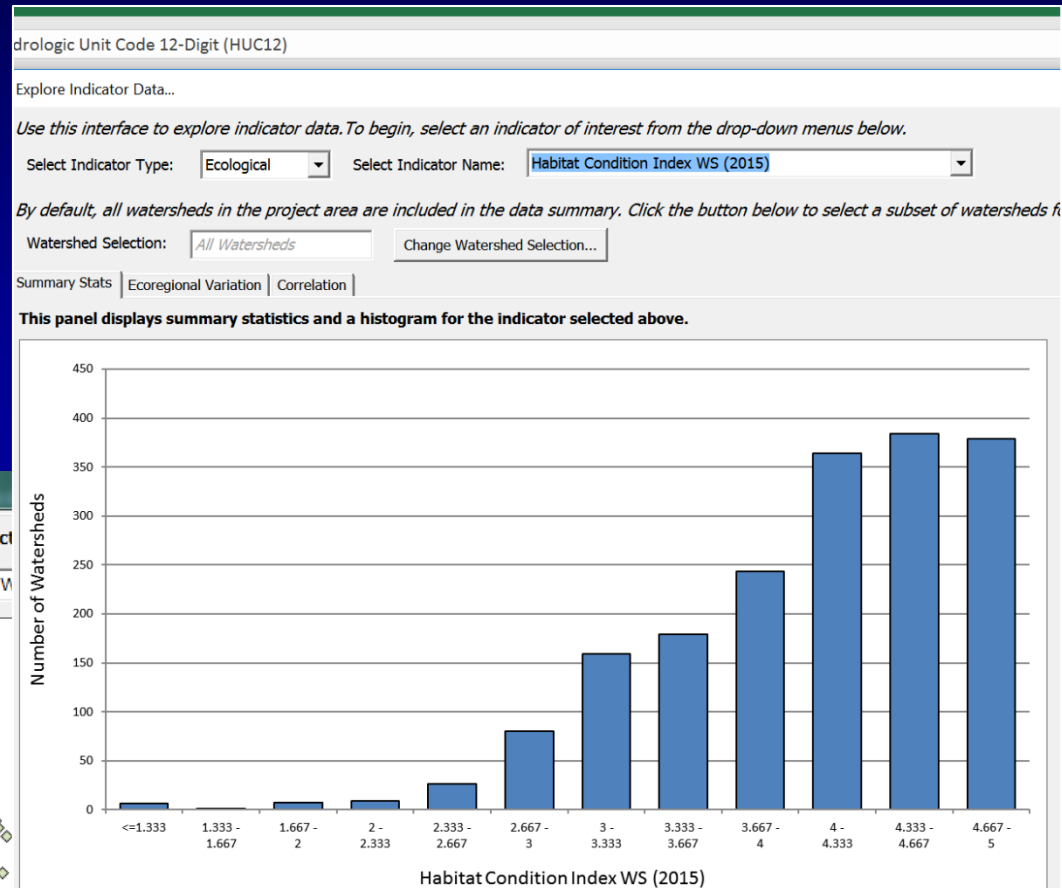


Tool Features: Pre-Loaded Indicator Data

- ❑ February 2018 tool release includes 268 indicators for HUC12 watersheds
- ❑ Example new/updated indicators:
 - ❑ 2016 land cover, imperviousness, and agriculture on sloped lands (2016 National Land Cover Database [NLCD])
 - ❑ 2001-2016 land cover change from NLCD
 - ❑ 2010-2050 developed cover projections (EPA ICLUS v2)
 - ❑ Wildfire vulnerability (2019 USFS Wildfire Potential dataset)
 - ❑ Protected lands (2019 Protected Areas Database)
 - ❑ Drinking water intakes, wells, and protection areas (updated using 2018 SDWIS)

Tool Features: Indicator Statistics Viewer

- Summary statistics
- Data distribution
- Correlation
- Ecoregional variation



Tool Features: Watershed Subsets

Define Watershed Subset...

On this menu you can define and store a subset of watersheds of interest based on one or more indicators. For example, a subset could include all watersheds with agricultural land cover greater than 50%. Use the controls below to specify which watersheds you would like to include in your subset. The selected watershed IDs will be stored as a new list on the HUC_Subsets sheet and can be copy/pasted onto the Setup sheet for screening.

Enter Subset Name (required, 50 character

NUTRIENT AND SEDIMENT IMPAIRED HUC12S

Enter Subset Description (optional):

A "subset condition" is an indicator, and set of values for that indicator, used to define watersheds to include in the subset. Use the menus below to define a subset condition then click the "Add Condition" button to add it to the list of conditions defined in the box to the right. Up to 10 subset conditions can be defined but must be entered one-at-a-time using the menus below.

Select Indicator Type: Stressor

Select Indicator

Sediment 303d-Listed Segments Count (2015)

Select Subset Method:

Unique Values

Include Watersheds
with Values Between:

To

Include Watersheds
with Values Of:

0
1
2
3

Add Condition

Check this box to save a copy of the subset name, description, and conditions as a PDF file for your records.

If this box is checked the PDF file will be saved after clicking the "Add Subset to HUC_Subsets Sheet" button below. The PDF file will be saved in the same directory as this tool file and will be named using the subset

Subset conditions are listed below after they are added with the "Add Condition" button. Up to 10 conditions can be defined.

Your subset can include watersheds that meet at least one of the subset conditions or only those watersheds that meet all of the subset conditions. Use the option buttons to select a subsetting method.

Watersheds must meet: At Least One Condition All Conditions

Nutrients 303d-Listed Segments Count (2015) = 1 To 100

You can remove a subset condition by highlighting it in the list above and clicking the "Remove Selected Condition" button below.

Remove Selected Condition

When you have defined all of your subset conditions click the "Add Subset to HUC_Subsets Sheet" button below to add the list of watershed IDs to the HUC_Subsets sheet

Add Subset to HUC_Subsets Sheet

Tool Features: User-Added Indicators

ADD INDICATORS

Enter Indicator Information

Enter new indicator names and types below.

Indicator Name	Indicator Type
Mean Fish IBI Score	Ecological
CSO Presence	Stressor
Active Watershed Group	Social

Enter Indicator Data

Paste your indicator table below. Your table must have watershed IDs in column D.

Watershed ID	Mean Fish IBI Score	CSO Presence	Active Watershed Group
300400010102	76	0	1
300400010103	92	0	1
300400010104	68	1	1
300400010105	53	0	1
300400010201	96	0	0
300400010204	88	0	0
300400010205		0	0
300400010206		1	0
300400010301	86	0	1
300400010302	42	1	1
300400010303		1	1
300400010401	78	0	0
040400010402	91	0	0
300400010403	94	0	0

Copy/paste custom indicators into the tool for use in screenings

RPS Tool Availability and Updates

- ❑ RPS Tools are produced for all 50 states and territories
- ❑ Planned update for fall 2020 with indicators of assessed/impaired waters and TMDLs from ATTAINS
- ❑ Future updates will incorporate additional watershed scales

Downloadable Statewide RPS Tools

You may need additional software to view some of the links on this page. See [EPA's Free Viewers and Readers page](#). The links will vary in file size.



Choose a state from the map above or the pull-down list below. Find your tool copy in your computer's downloads folder, then open it offline in Excel.

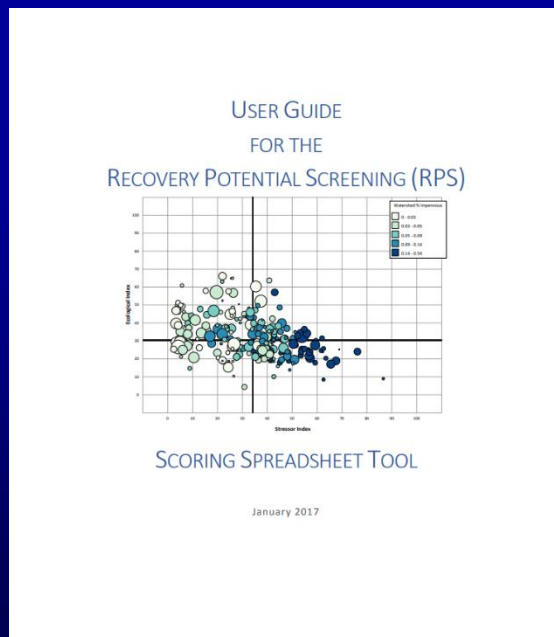
Alabama

<https://www.epa.gov/rps/downloadable-rps-tools-comparing-watersheds#Statewide>

RPS Training Resources

<https://www.epa.gov/rps/rps-training-and-user-support>

- Video Training Series - short instructional videos that each focus on critical elements of the RPS Tool
- User Guide with step-by-step instructions
- Reports from past projects



Questions?

www.epa.gov/rps