

# NTN Stations

- NTN2014\_10YR
  - NTN2014\_LT9YR
- 
- Susquehanna
  - Eastern Shore
  - Western Shore
  - Potomac
  - Rappahannock
  - York
  - James

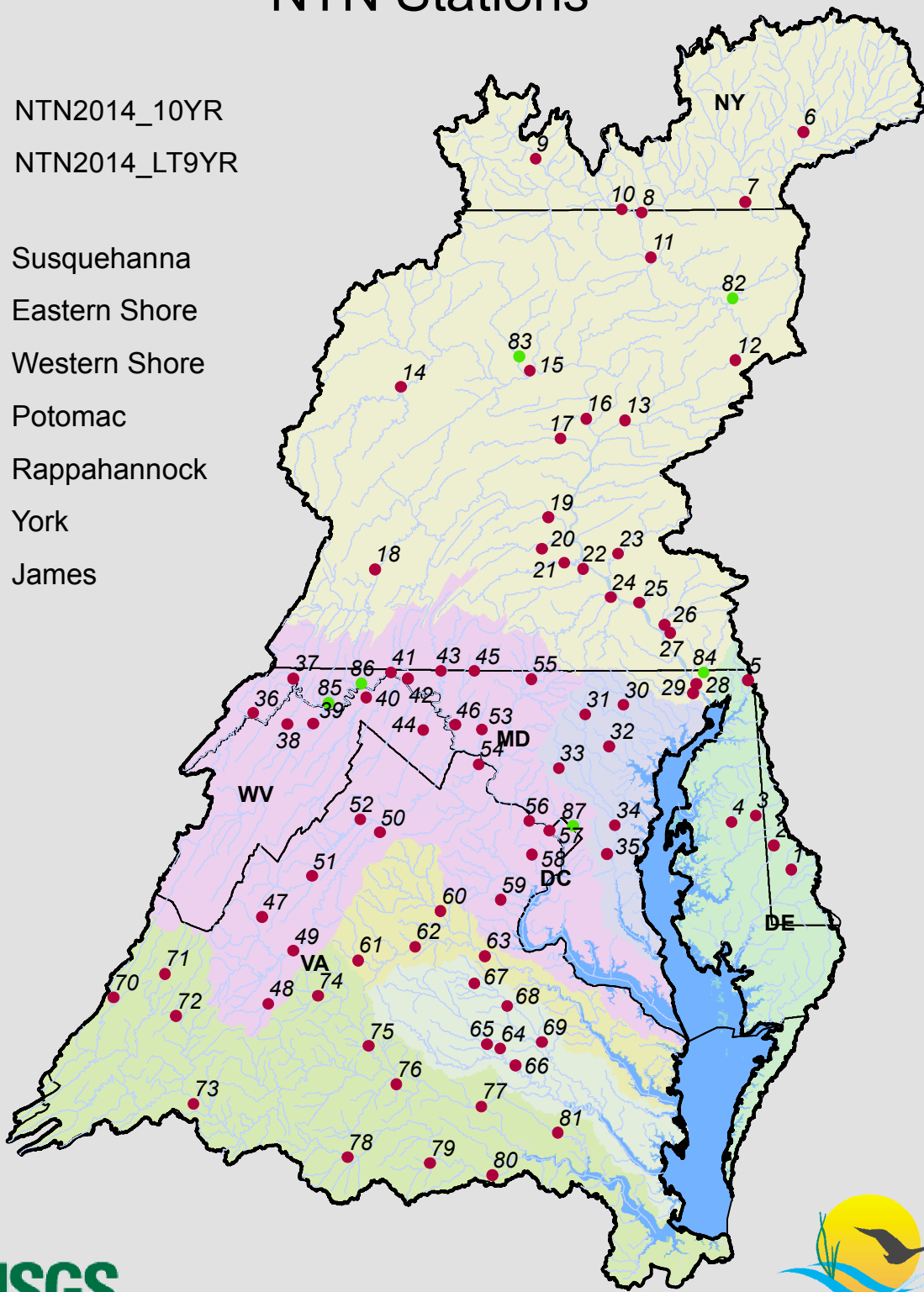


Table 1. Chesapeake Bay nontidal monitoring stations included in the determination of nutrient and suspended sediment loads and trends for the time period 1985 through 2014. Bold stations represent the nine River Input Monitoring stations.

MAP ID	USGS STATION NUMBER	USGS STATION NAME	MAJOR WATERSHED/REGION	Drainage Area (mi <sup>2</sup> )	MONITORING DATA	
					START DATE	END DATE
1	01487000	NANTICOKE RIVER NEAR BRIDGEVILLE, DE	Eastern Shore	75	1998	2014
2	01488500	MARSHYHOPE CREEK NEAR ADAMSVILLE, DE	Eastern Shore	47	2005	2014
3	<b>01491000</b>	<b>CHOPTANK RIVER NEAR GREENSBORO, MD</b>	<b>Eastern Shore</b>	113	<b>1985</b>	<b>2014</b>
4	01491500	TUCKAHOE CREEK NEAR RUTHSBURG, MD	Eastern Shore	85	2005	2014
5	01495000	BIG ELK CREEK AT ELK MILLS, MD	Eastern Shore	52	2005	2014
6	01502500	UNADILLA RIVER AT ROCKDALE NY	Susquehanna	520	2005	2014
7	01503000	SUSQUEHANNA RIVER AT CONKLIN NY	Susquehanna	2,232	2006	2014
8	01515000	SUSQUEHANNA RIVER NEAR WAVERLY NY	Susquehanna	4,773	2005	2014
9	01529500	COHOCTON RIVER NEAR CAMPBELL NY	Susquehanna	470	2006	2014
10	01531000	CHEMUNG RIVER AT CHEMUNG NY	Susquehanna	2,506	2005	2014
11	01531500	SUSQUEHANNA RIVER AT TOWANDA, PA	Susquehanna	7,797	1985	2014
82	01534000	TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA	Susquehanna	383	2007	2014
12	01536500	SUSQUEHANNA RIVER AT WILKES-BARRE, PA	Susquehanna	9,960	1989	2014
13	01540500	SUSQUEHANNA RIVER AT DANVILLE, PA	Susquehanna	11,220	1985	2014
14	01542500	WB SUSQUEHANNA RIVER AT KARTHAUS, PA	Susquehanna	1,462	2005	2014
83	01549700	PINE CREEK BL L PINE CREEK NEAR WATERVILLE, PA	Susquehanna	944	2007	2014
15	01549760	WB SUSQUEHANNA RIVER AT JERSEY SHORE, PA	Susquehanna	5,225	2006	2014
16	01553500	WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA	Susquehanna	6,847	1985	2014
17	01555000	PENNS CREEK AT PENNS CREEK, PA	Susquehanna	301	2005	2014
18	01562000	RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA	Susquehanna	756	2005	2014
19	01567000	JUNIATA RIVER AT NEWPORT, PA	Susquehanna	3,354	1985	2014
20	01568000	SHERMAN CREEK AT SHERMANS DALE, PA	Susquehanna	207	2005	2014
21	01570000	CONODOGUINET CREEK NEAR HOGESTOWN, PA	Susquehanna	470	2005	2014
22	01571500	YELLOW BREECHES CREEK NEAR CAMP HILL, PA	Susquehanna	213	2005	2014
23	01573560	SWATARA CREEK NEAR HERSHEY, PA	Susquehanna	483	2005	2014
24	01574000	WEST CONEWAGO CREEK NEAR MANCHESTER, PA	Susquehanna	510	2005	2014
25	01576000	SUSQUEHANNA RIVER AT MARIETTA, PA	Susquehanna	25,990	1987	2014
26	01576754	CONESTOGA RIVER AT CONESTOGA, PA	Susquehanna	470	1985	2014
27	01576787	PEQUEA CREEK AT MARTIC FORGE, PA	Susquehanna	148	2005	2014
28	<b>01578310</b>	<b>SUSQUEHANNA RIVER AT CONOWINGO, MD</b>	<b>Susquehanna</b>	27,100	<b>1985</b>	<b>2014</b>
84	01578475	OCTORARO CREEK NEAR RICHARDSMERE, MD	Susquehanna	177	2007	2014
29	01580520	DEER CREEK NEAR DARLINGTON, MD	Western Shore	164	2006	2014
30	01582500	GUNPOWDER FALLS AT GLENCOE, MD	Western Shore	160	1985	2014
31	01586000	NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD	Western Shore	57	1985	2014
32	01589300	GWYNNS FALLS AT VILLA NOVA, MD	Western Shore	32	2003	2014
33	01591000	PATUXENT RIVER NEAR UNITY, MD	Western Shore	35	1985	2014
34	<b>01594440</b>	<b>PATUXENT RIVER NEAR BOWIE, MD</b>	<b>Western Shore</b>	348	<b>1985</b>	<b>2014</b>
35	01594526	WESTERN BRANCH AT UPPER MARLBORO, MD	Western Shore	90	2006	2014
36	01599000	GEORGES CREEK AT FRANKLIN, MD	Potomac	72	1985	2014
37	01601500	WILLS CREEK NEAR CUMBERLAND, MD	Potomac	247	1985	2014
38	01604500	PATTERSON CREEK NEAR HEADSVILLE, WV	Potomac	221	2006	2014
39	01608500	SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV	Potomac	1,461	2006	2014
85	01609000	TOWN CREEK NEAR OLDTOWN, MD	Potomac	148	2007	2014
86	01610155	SIDELING HILL CREEK NEAR BELLEGROVE, MD	Potomac	102	2007	2014
40	01611500	CACAPON RIVER NEAR GREAT CACAPON, WV	Potomac	675	2006	2014
41	01613095	TONOLOWAY CREEK NEAR HANCOCK, MD	Potomac	111	2006	2014
42	01613525	LICKING CREEK AT PECTONVILLE, MD	Potomac	193	2006	2014
43	01614500	CONOCOCHAGUE CREEK AT FAIRVIEW, MD	Potomac	494	1985	2014
44	01616500	OPEQUON CREEK NEAR MARTINSBURG, WV	Potomac	273	2006	2014
45	01619000	ANTIETAM CREEK NEAR WAYNESBORO, PA	Potomac	93	2006	2014
46	01619500	ANTIETAM CREEK NEAR SHARPSBURG, MD	Potomac	281	1985	2014
47	01621050	MUDDY CREEK AT MOUNT CLINTON, VA	Potomac	14	1994	2014
48	01626000	SOUTH RIVER NEAR WAYNESBORO, VA	Potomac	127	1985	2014
49	01628500	S F SHENANDOAH RIVER NEAR LYNNWOOD, VA	Potomac	1,079	1985	2014
50	01631000	S F SHENANDOAH RIVER AT FRONT ROYAL, VA	Potomac	1,634	1985	2014
51	01632900	SMITH CREEK NEAR NEW MARKET, VA	Potomac	94	1985	2014
52	01634000	N F SHENANDOAH RIVER NEAR STRASBURG, VA	Potomac	770	1985	2014
53	01637500	CATOCTIN CREEK NEAR MIDDLETOWN, MD	Potomac	67	1985	2014
54	01638480	CATOCTIN CREEK AT TAYLORSTOWN, VA	Potomac	89	1985	2014
55	01639000	MONOCACY RIVER AT BRIDGEPORT, MD	Potomac	173	1985	2014
56	01646000	DIFFICULT RUN NEAR GREAT FALLS, VA	Potomac	58	1985	2014
57	<b>01646580</b>	<b>POTOMAC RIVER AT CHAIN BRIDGE, AT WASHINGTON, DC</b>	<b>Potomac</b>	11,570	<b>1985</b>	<b>2014</b>
87	01651000	NORTHWEST BR ANACOSTIA RIVER NR HYATTSVILLE, MD	Potomac	49	2007	2014
58	01654000	ACCOTINK CREEK NEAR ANNANDALE, VA	Potomac	24	1991	2014

Table 1. Chesapeake Bay nontidal monitoring stations included in the determination of nutrient and suspended sediment loads and trends for the time period 1985 through 2014. Bold stations represent the nine River Input Monitoring stations.

MAP ID	USGS STATION NUMBER	USGS STATION NAME	MAJOR WATERSHED/REGION	Drainage Area (mi <sup>2</sup> )	MONITORING DATA	
					START DATE	END DATE
59	01658500	S F QUANTICO CREEK NEAR INDEPENDENT HILL, VA	Potomac	8	1994	2014
60	01664000	RAPPAHANNOCK RIVER AT REMINGTON, VA	Virginia	619	1985	2014
61	01665500	RAPIDAN RIVER NEAR RUCKERSVILLE, VA	Virginia	115	2003	2014
62	01667500	RAPIDAN RIVER NEAR CULPEPER, VA	Virginia	468	2005	2014
<b>63</b>	<b>01668000</b>	<b>RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA</b>	<b>Virginia</b>	<b>1,595</b>	<b>1985</b>	<b>2014</b>
64	01671020	NORTH ANNA RIVER AT HART CORNER NEAR DOSWELL, VA	Virginia	462	1985	2014
65	01671100	LITTLE RIVER NEAR DOSWELL, VA	Virginia	107	2001	2014
<b>66</b>	<b>01673000</b>	<b>PAMUNKEY RIVER NEAR HANOVER, VA</b>	<b>Virginia</b>	<b>1,078</b>	<b>1985</b>	<b>2014</b>
67	01673800	PO RIVER NEAR SPOTSYLVANIA, VA	Virginia	78	1987	2014
68	01674000	MATTAPONI RIVER NEAR BOWLING GREEN, VA	Virginia	256	1985	2014
<b>69</b>	<b>01674500</b>	<b>MATTAPONI RIVER NEAR BEULAHVILLE, VA</b>	<b>Virginia</b>	<b>603</b>	<b>1985</b>	<b>2014</b>
70	02011500	BACK CREEK NEAR MOUNTAIN GROVE, VA	Virginia	134	1985	2014
71	02015700	BULLPASTURE RIVER AT WILLIAMSVILLE, VA	Virginia	110	1985	2014
72	02020500	CALFPASTURE RIVER ABOVE MILL CREEK AT GOSHEN, VA	Virginia	141	1999	2014
73	02024752	JAMES RIVER AT BLUE RIDGE PKWY NR BIG ISLAND, VA	Virginia	3,076	2006	2014
74	02031000	MECHUMS RIVER NEAR WHITE HALL, VA	Virginia	95	1985	2014
75	02034000	RIVANNA RIVER AT PALMYRA, VA	Virginia	663	1985	2014
<b>76</b>	<b>02035000</b>	<b>JAMES RIVER AT CARTERSVILLE, VA</b>	<b>Virginia</b>	<b>6,252</b>	<b>1985</b>	<b>2014</b>
77	02037500	JAMES RIVER NEAR RICHMOND, VA	Virginia	6,753	1985	2014
78	02039500	APPOMATTOX RIVER AT FARMVILLE, VA	Virginia	302	1985	2014
79	02041000	DEEP CREEK NEAR MANNBORO, VA	Virginia	158	1991	2014
<b>80</b>	<b>02041650</b>	<b>APPOMATTOX RIVER AT MATOACA, VA</b>	<b>Virginia</b>	<b>1,342</b>	<b>1985</b>	<b>2014</b>
81	02042500	CHICKAHOMINY RIVER NEAR PROVIDENCE FORGE, VA	Virginia	251	1985	2014

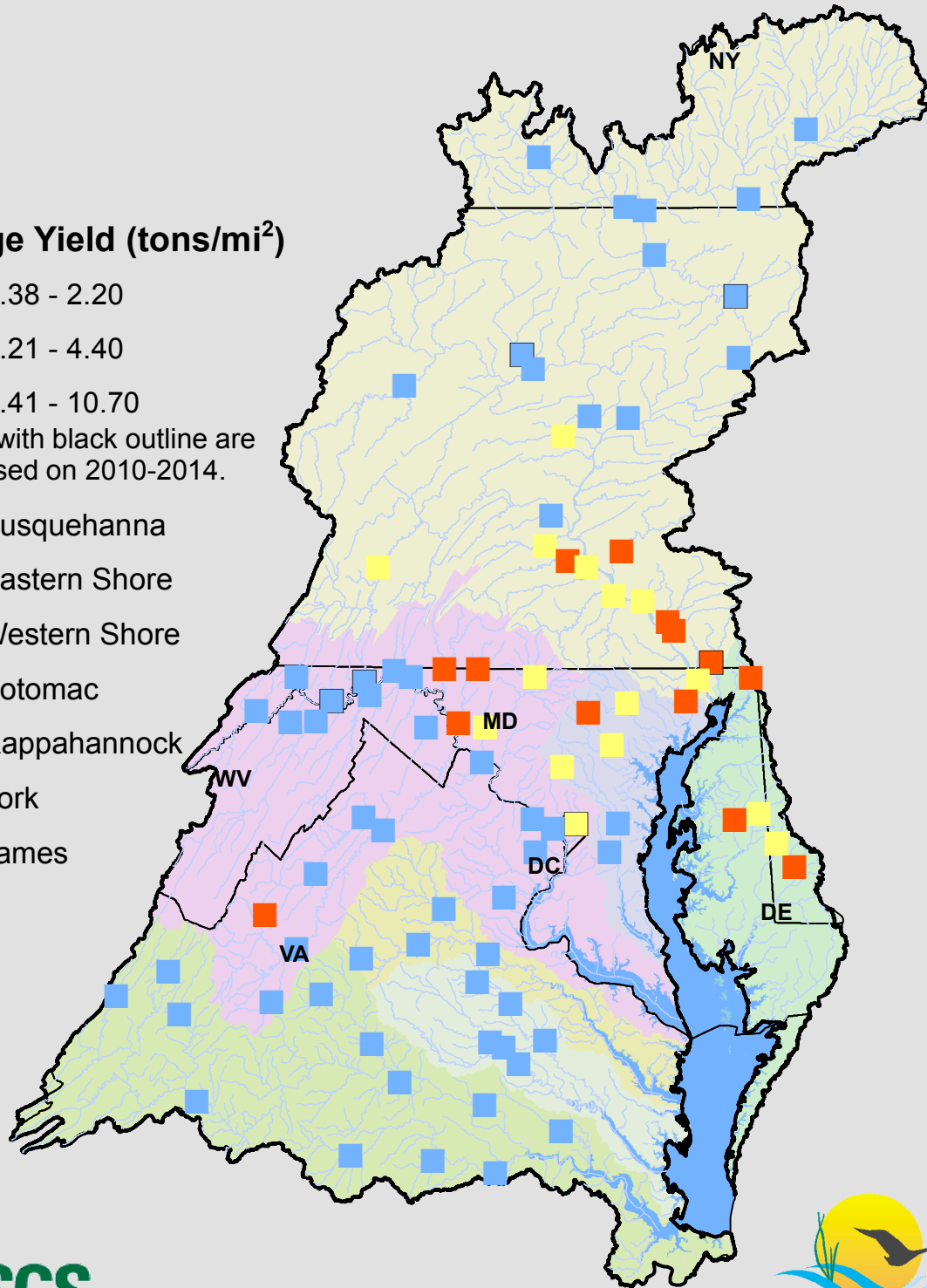
# Total Nitrogen Yields: 2005-2014

## Average Yield (tons/mi<sup>2</sup>)

- 0.38 - 2.20
- 2.21 - 4.40
- 4.41 - 10.70

Squares with black outline are yields based on 2010-2014.

- Susquehanna
- Eastern Shore
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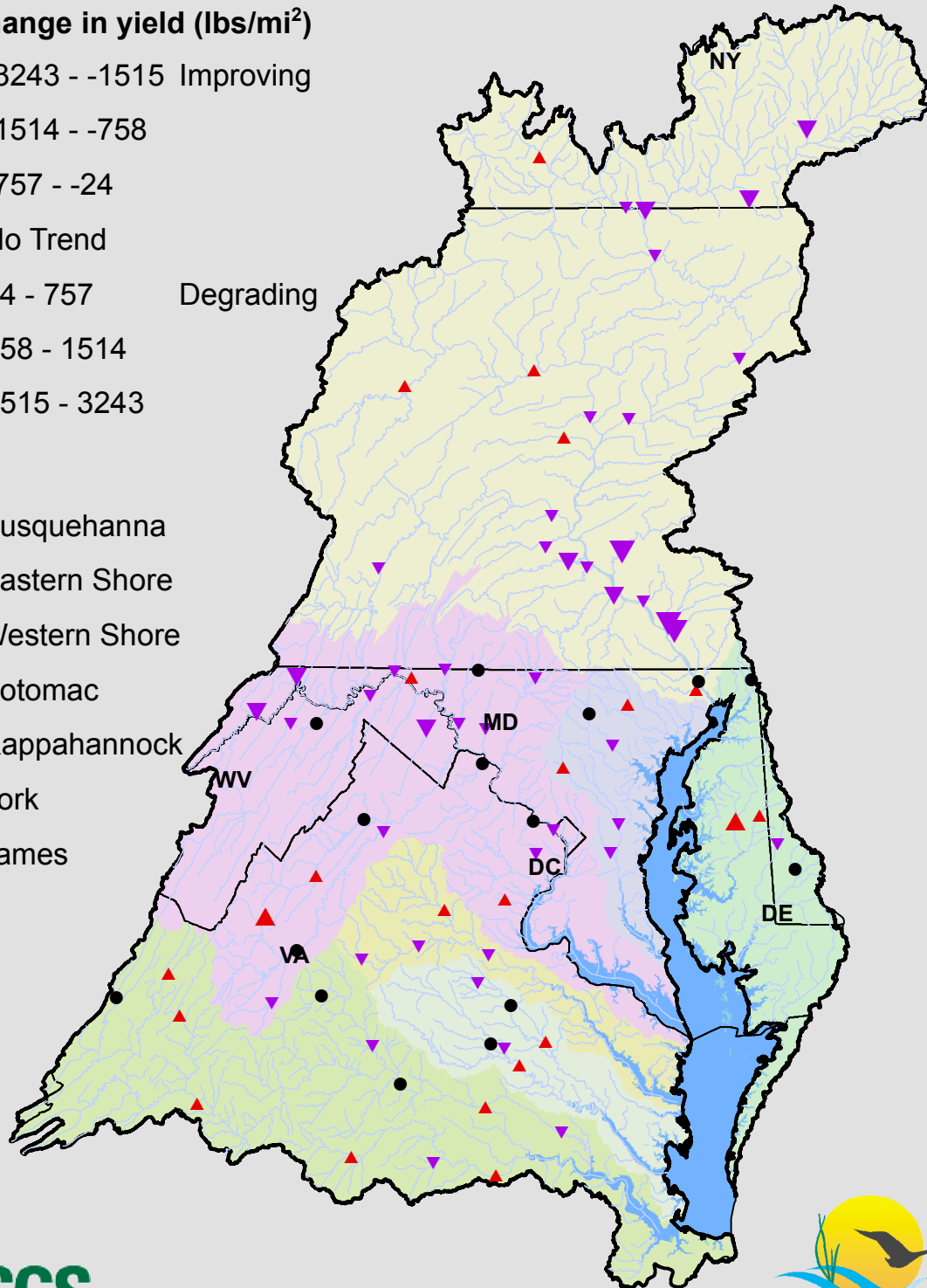


# Trend in Total Nitrogen Flow-Normalized Yield, 2005-2014

Total change in yield (lbs/mi<sup>2</sup>)

- ▼ -3243 - -1515 Improving
- ▼ -1514 - -758
- ▼ -757 - -24
- No Trend
- ▲ 24 - 757 Degrading
- ▲ 758 - 1514
- ▲ 1515 - 3243

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# Total Nitrogen Yields and Trends, 2005-2014

## Trend Direction

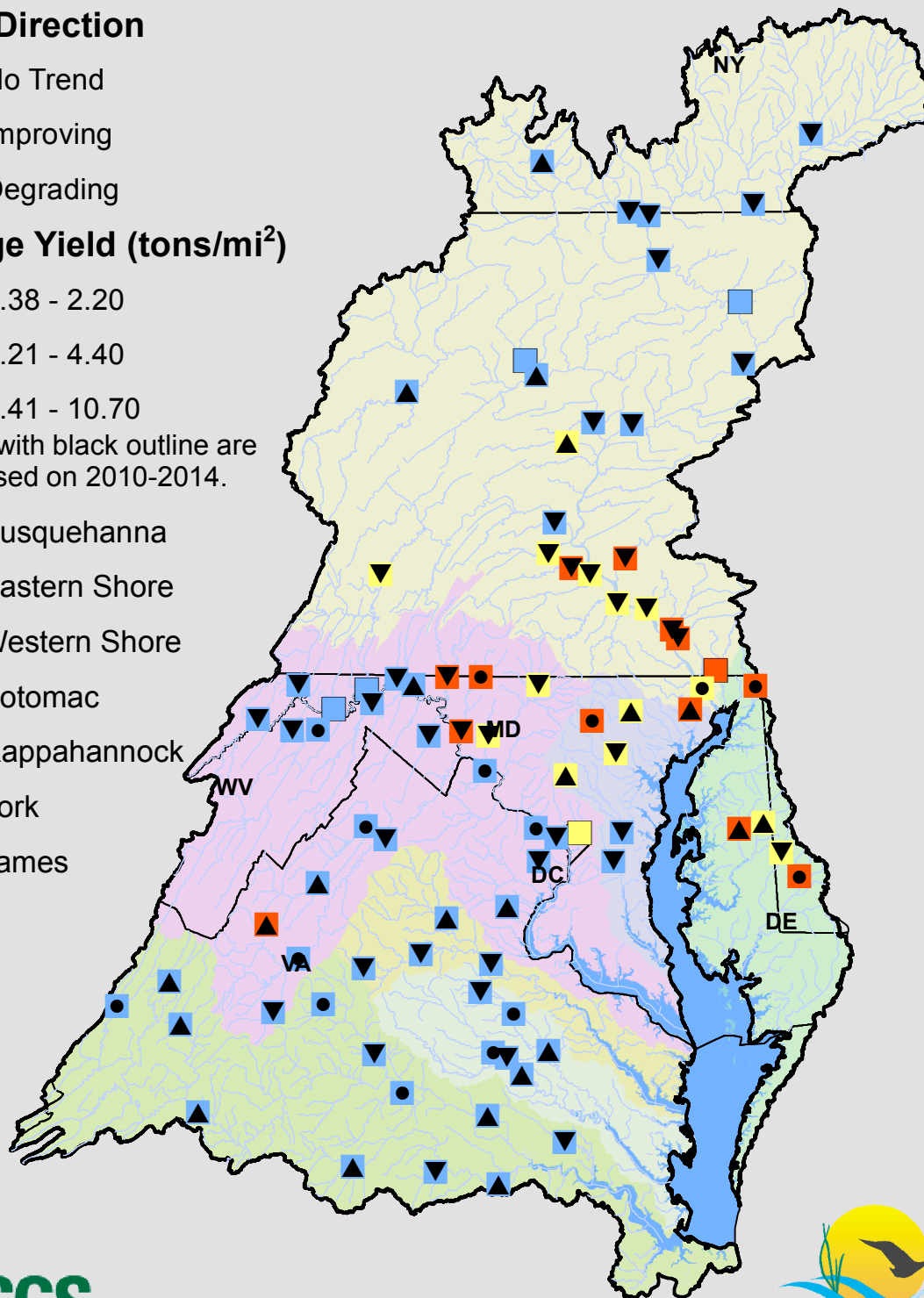
- No Trend
- ▼ Improving
- ▲ Degrading

## Average Yield (tons/mi<sup>2</sup>)

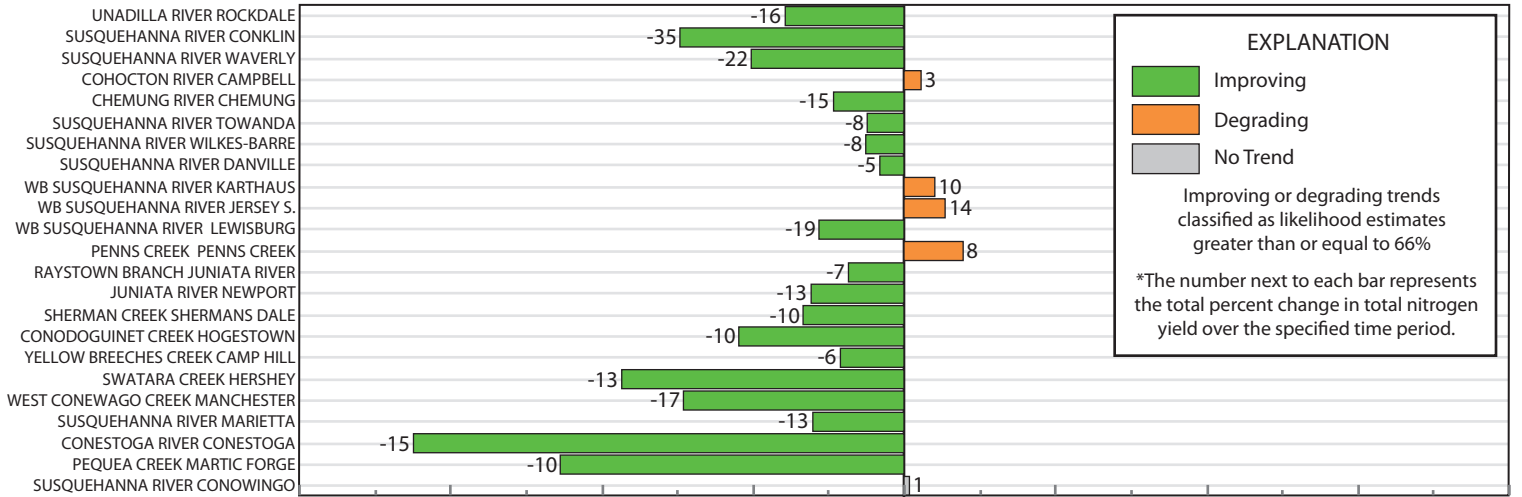
- 0.38 - 2.20
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## Susquehanna



Improving

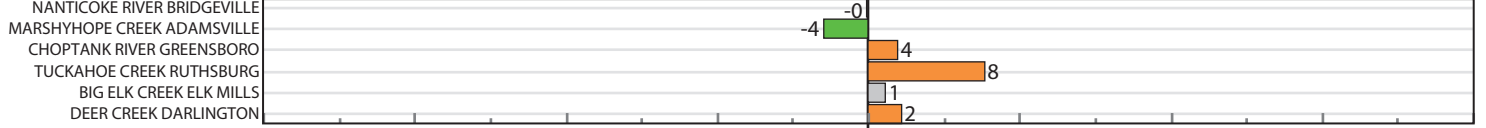
Degrading

No Trend

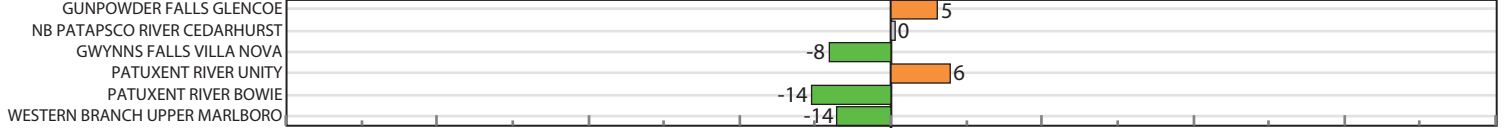
Improving or degrading trends classified as likelihood estimates greater than or equal to 66%

\*The number next to each bar represents the total percent change in total nitrogen yield over the specified time period.

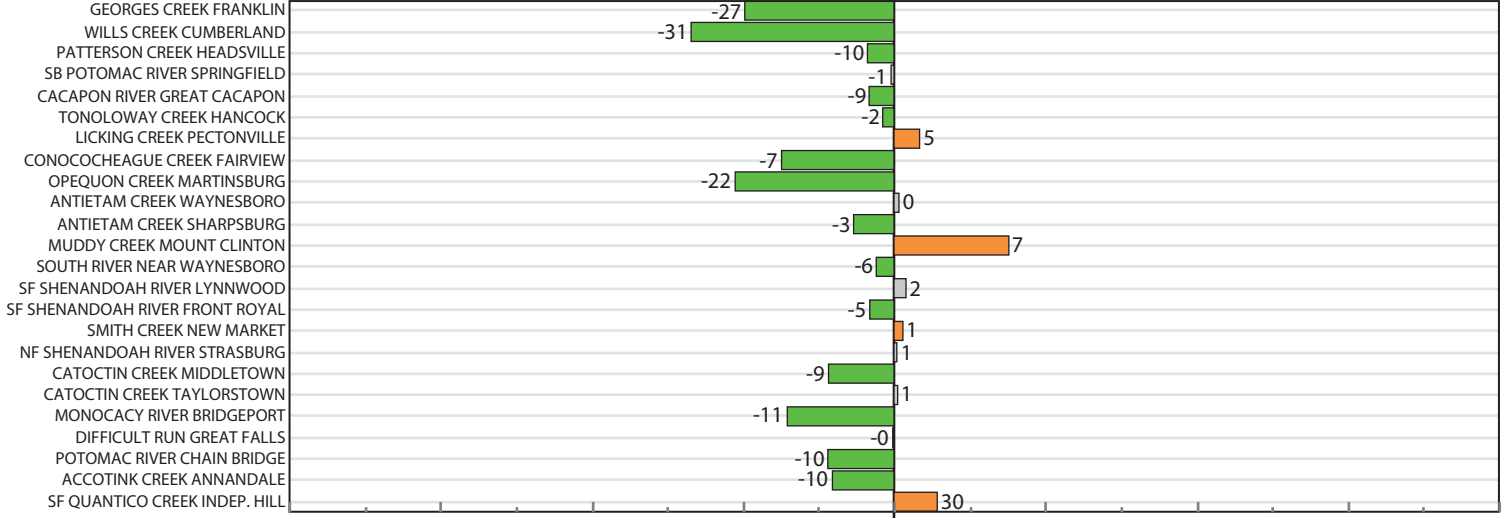
## Eastern Shore



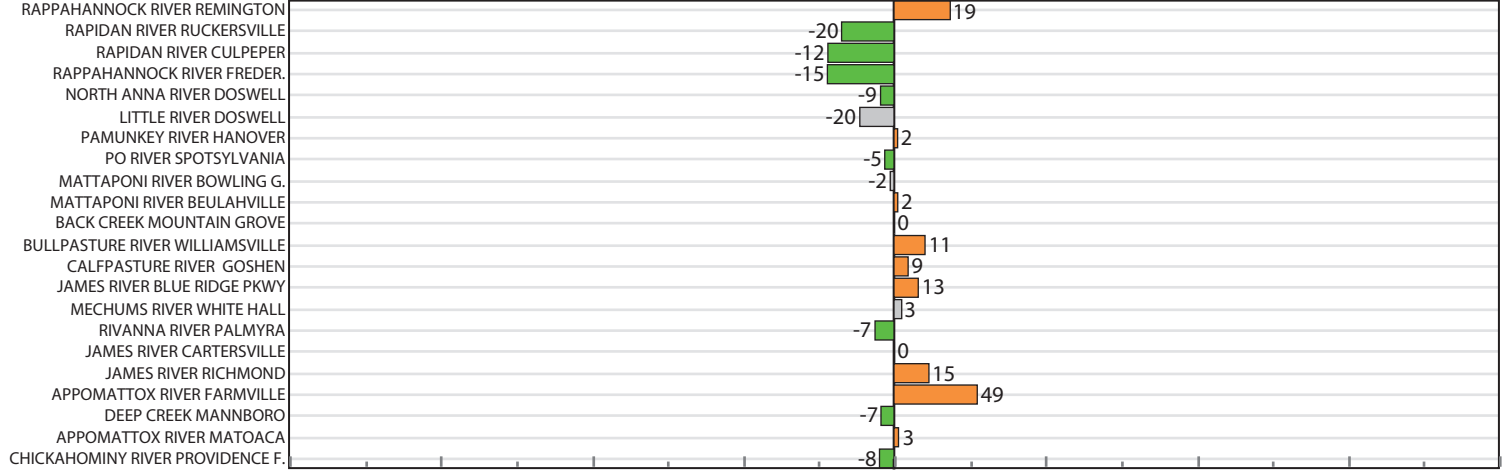
## Western Shore



## Potomac



## Virginia



-4,000 -3,000 -2,000 -1,000 0 1,000 2,000 3,000 4,000

Change in Total Nitrogen Yield between 2005 and 2014, in pounds per square mile

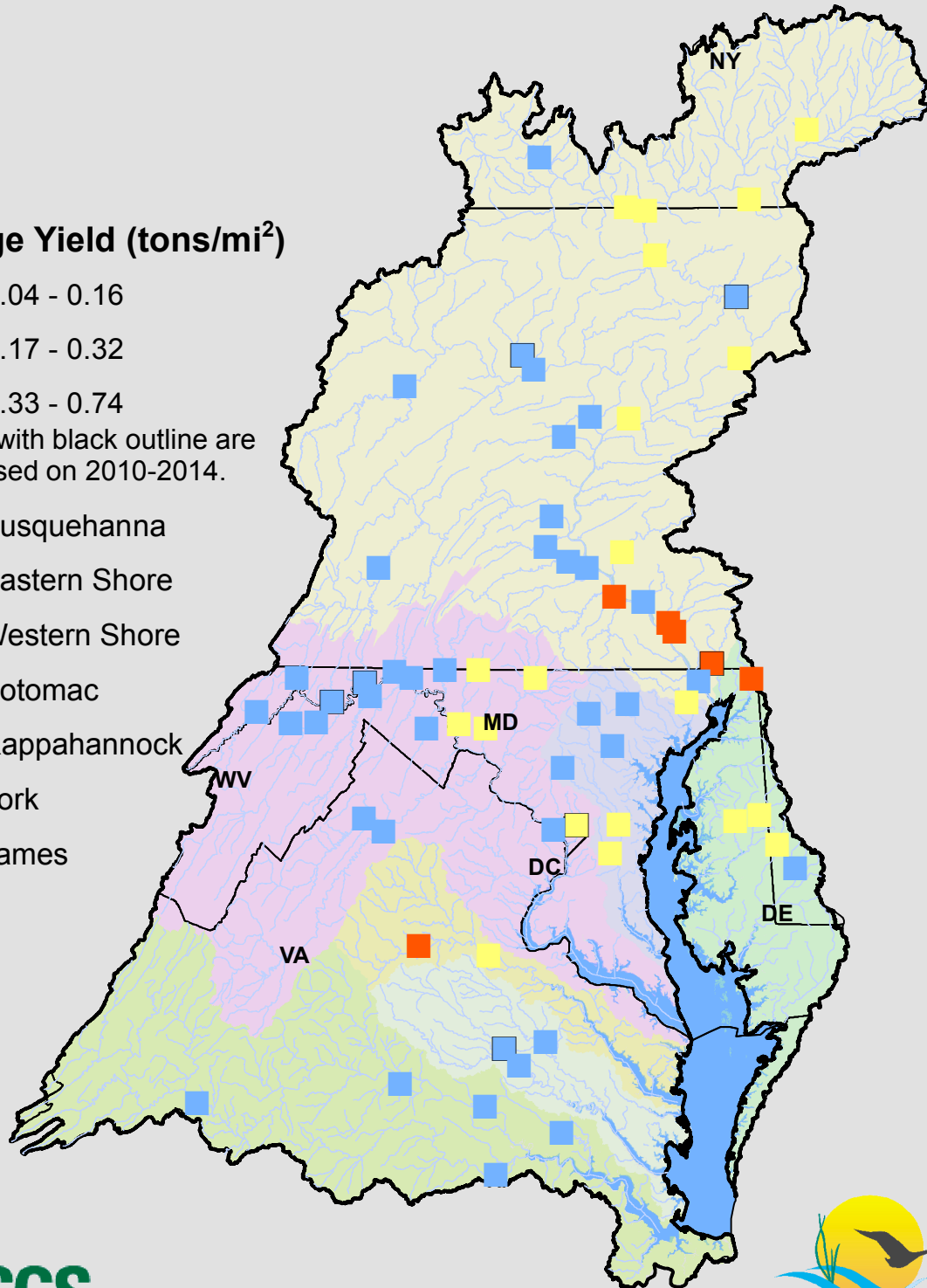
# Total Phosphorus Yields: 2005-2014

## Average Yield (tons/mi<sup>2</sup>)

- 0.04 - 0.16
- 0.17 - 0.32
- 0.33 - 0.74

Squares with black outline are yields based on 2010-2014.

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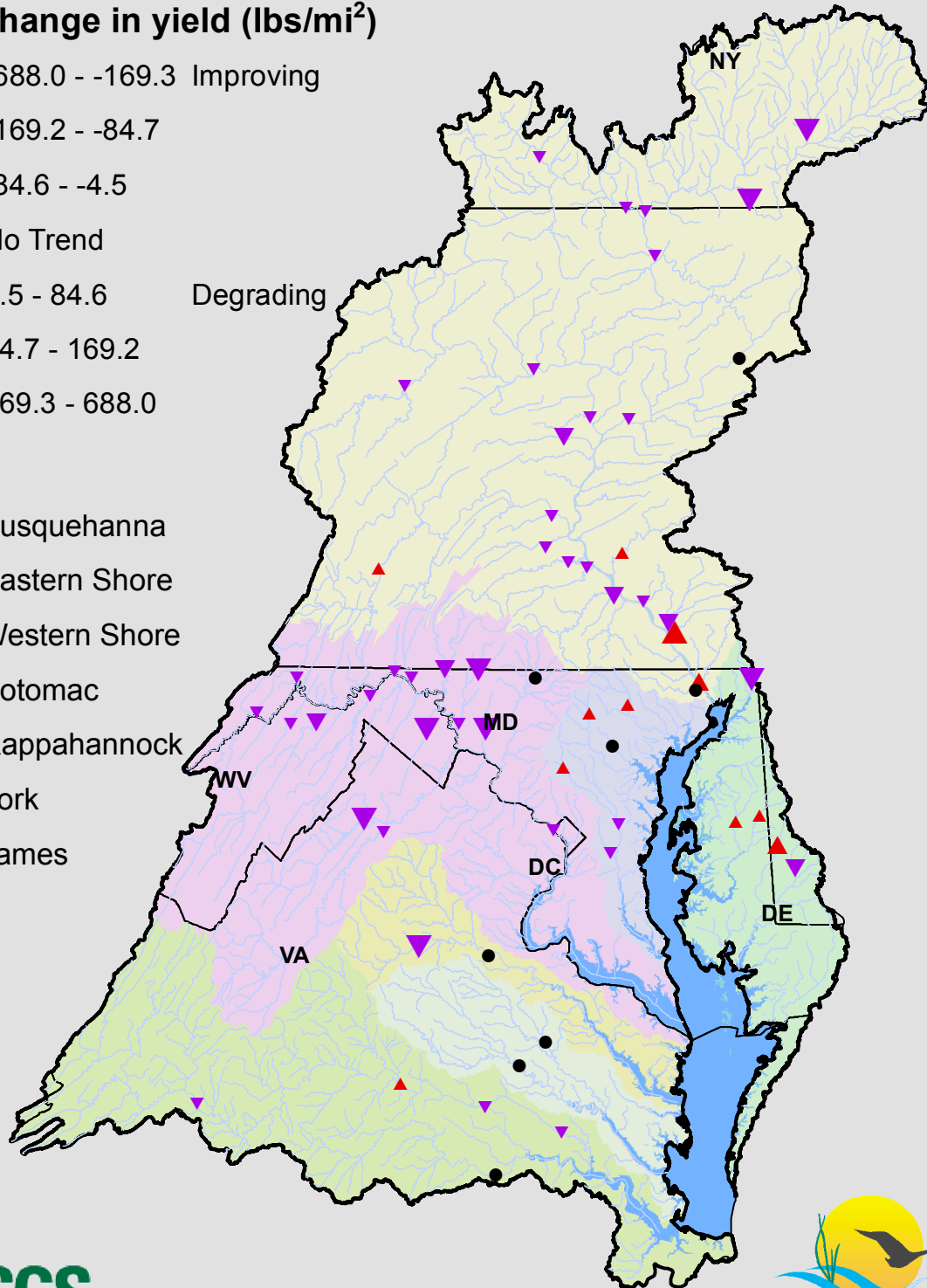


# Trend in Total Phosphorus Flow-Normalized Yield, 2005-2014

Total change in yield (lbs/mi<sup>2</sup>)

- ▼ -688.0 - -169.3 Improving
- ▼ -169.2 - -84.7
- ▼ -84.6 - -4.5
- No Trend
- ▲ 4.5 - 84.6 Degrading
- ▲ 84.7 - 169.2
- ▲ 169.3 - 688.0

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# Total Phosphorus Yields and Trends, 2005-2014

## Trend Direction

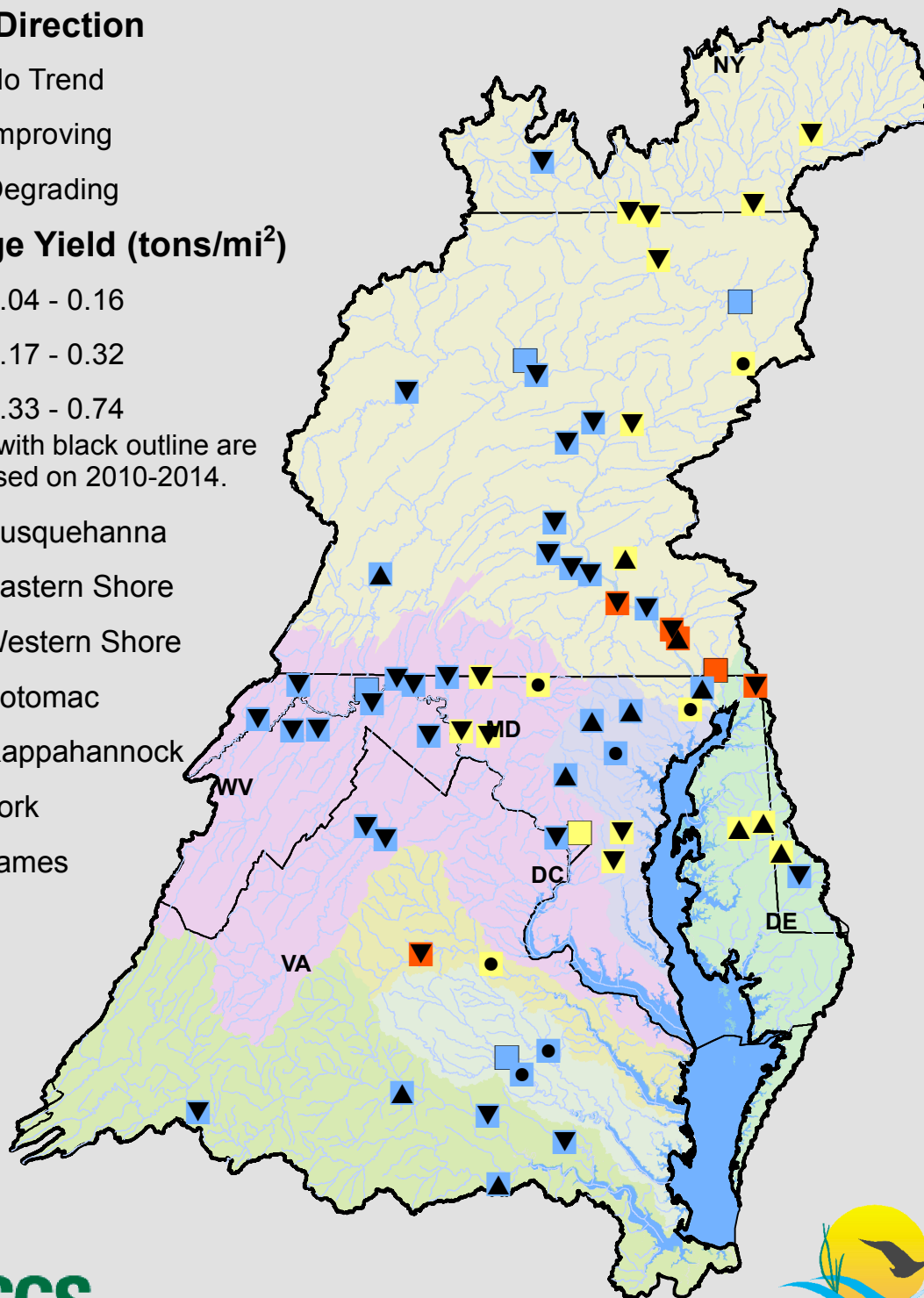
- No Trend
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- ▲ Degrading

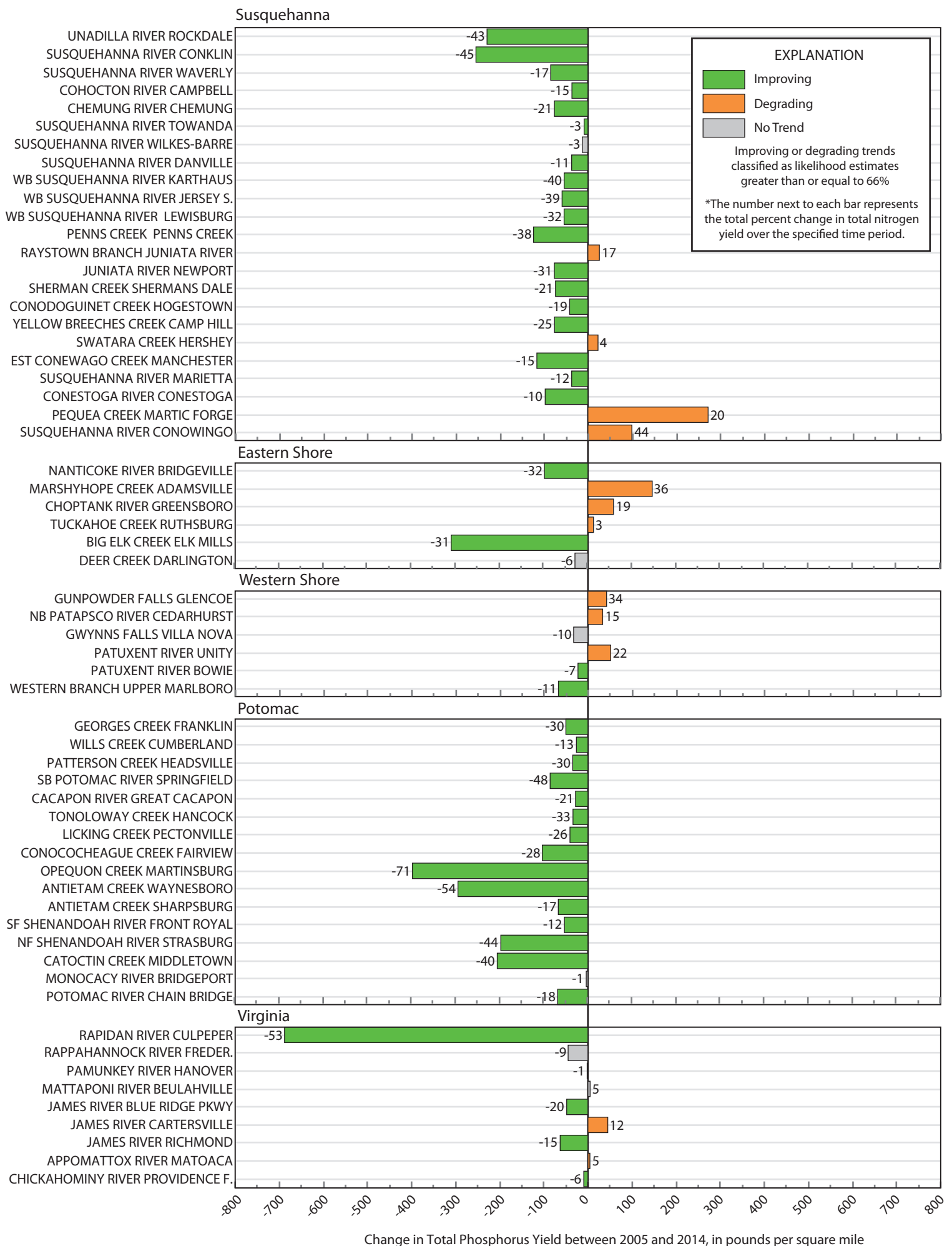
## Average Yield (tons/mi<sup>2</sup>)

- 0.04 - 0.16
- 0.17 - 0.32
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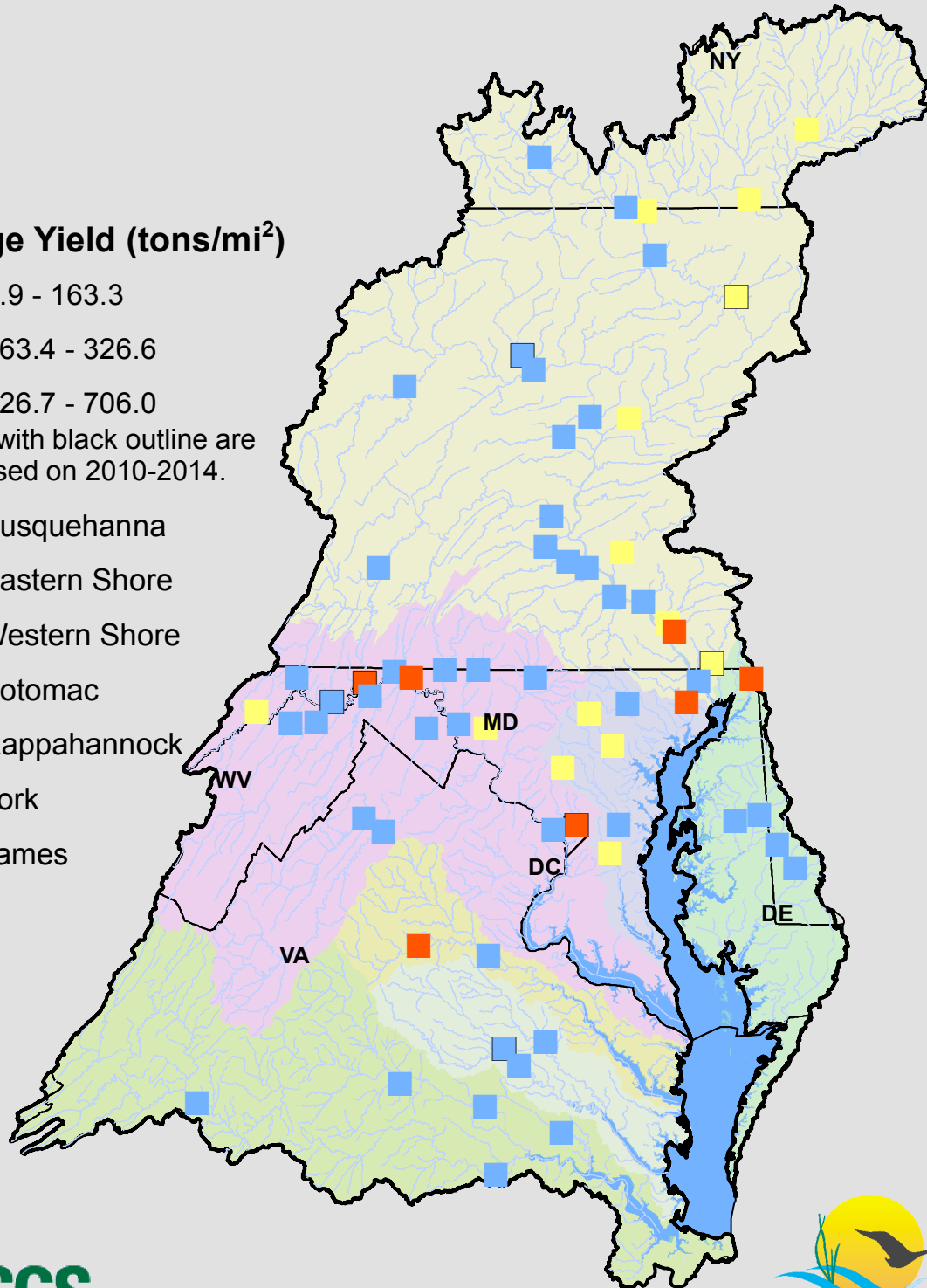
# Suspended Sediment Yields: 2005-2014

## Average Yield (tons/mi<sup>2</sup>)

- 5.9 - 163.3
- 163.4 - 326.6
- 326.7 - 706.0

Squares with black outline are yields based on 2010-2014.

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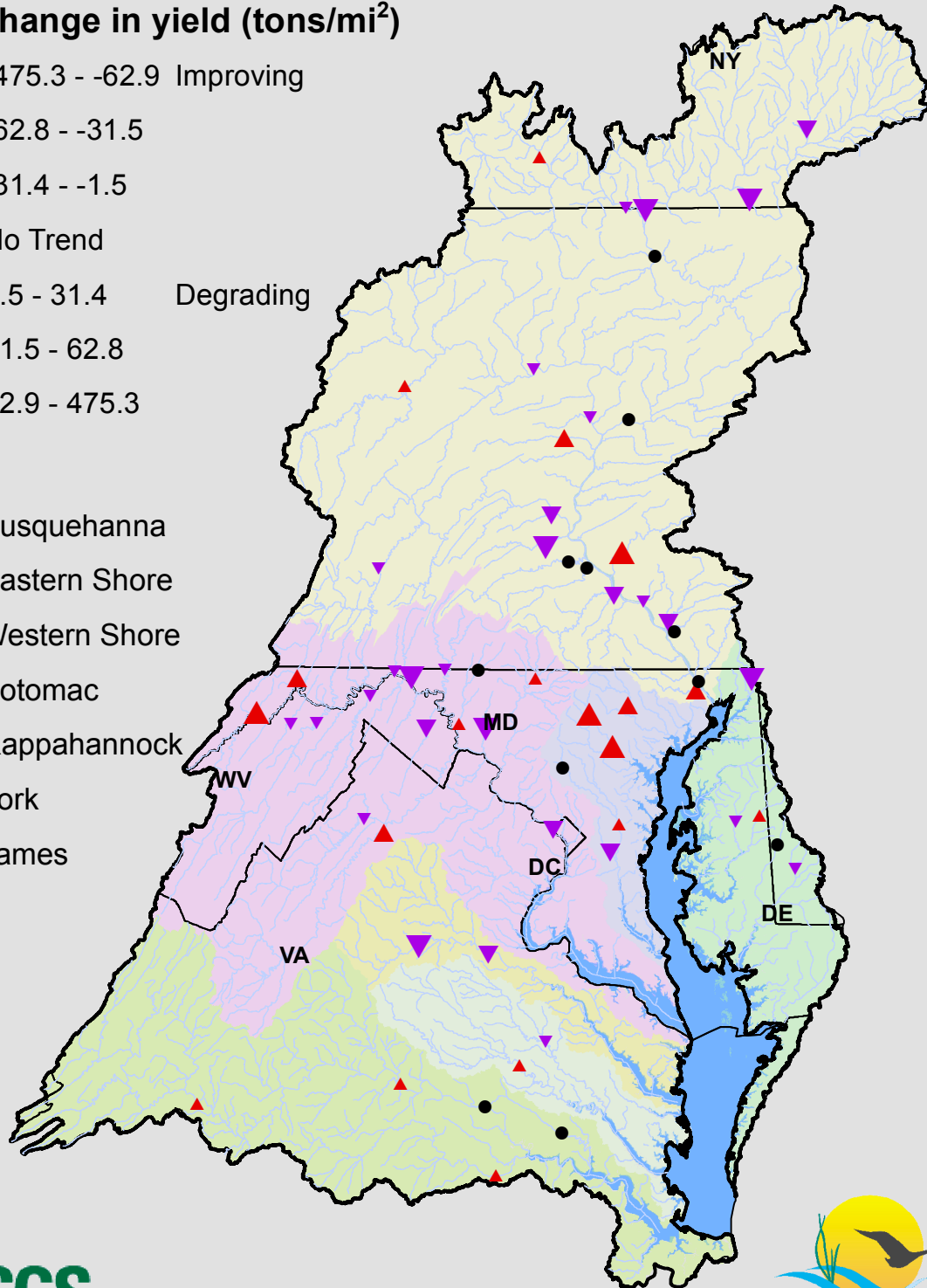


# Trend in Suspended Sediment Flow-Normalized Yield, 2005-2014

Total change in yield (tons/mi<sup>2</sup>)

- ▼ -475.3 - -62.9 Improving
- ▼ -62.8 - -31.5
- ▼ -31.4 - -1.5
- No Trend
- ▲ 1.5 - 31.4 Degrading
- ▲ 31.5 - 62.8
- ▲ 62.9 - 475.3

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# Suspended Sediment Yields and Trends, 2005-2014

## Trend Direction

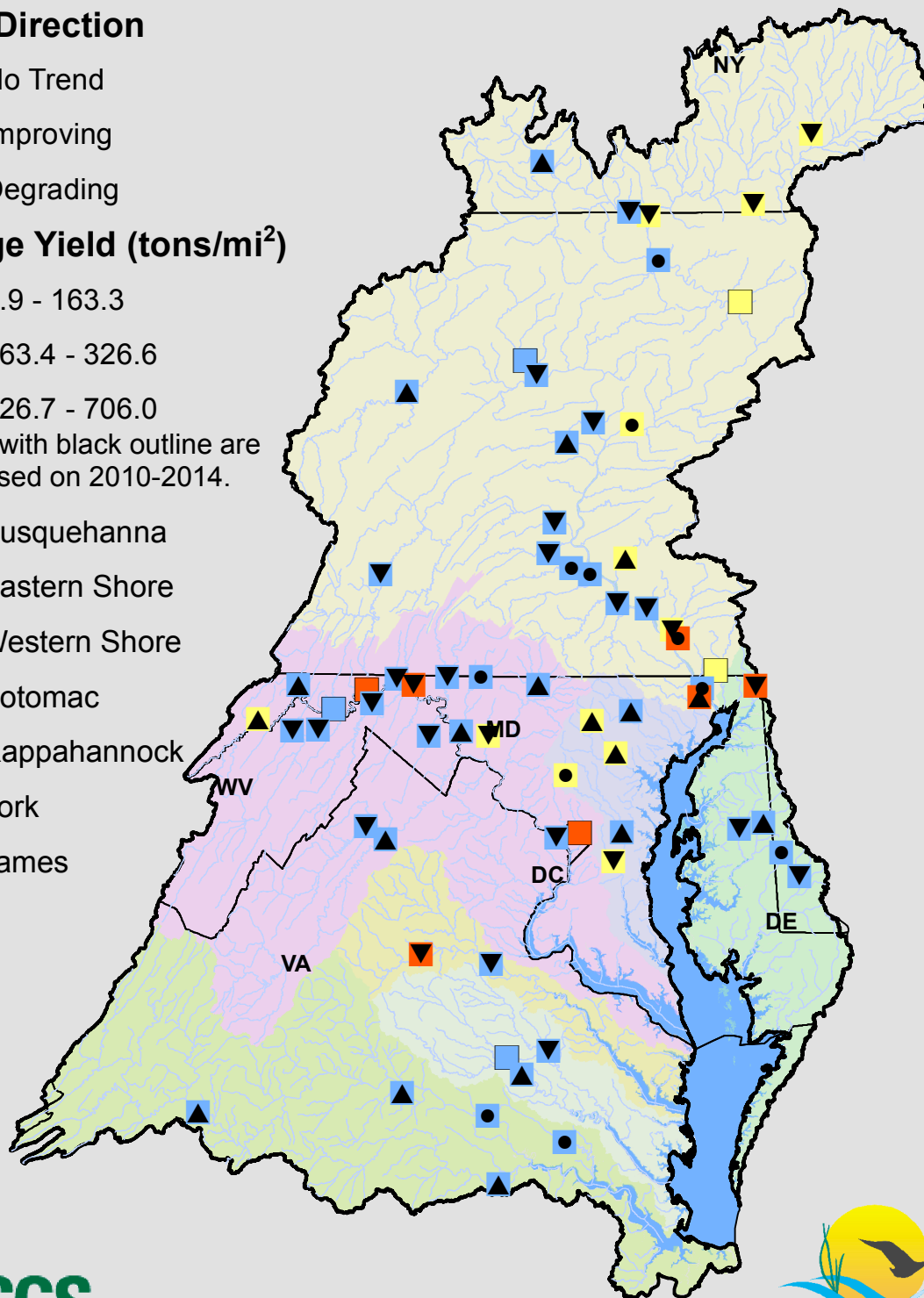
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## Average Yield (tons/mi<sup>2</sup>)

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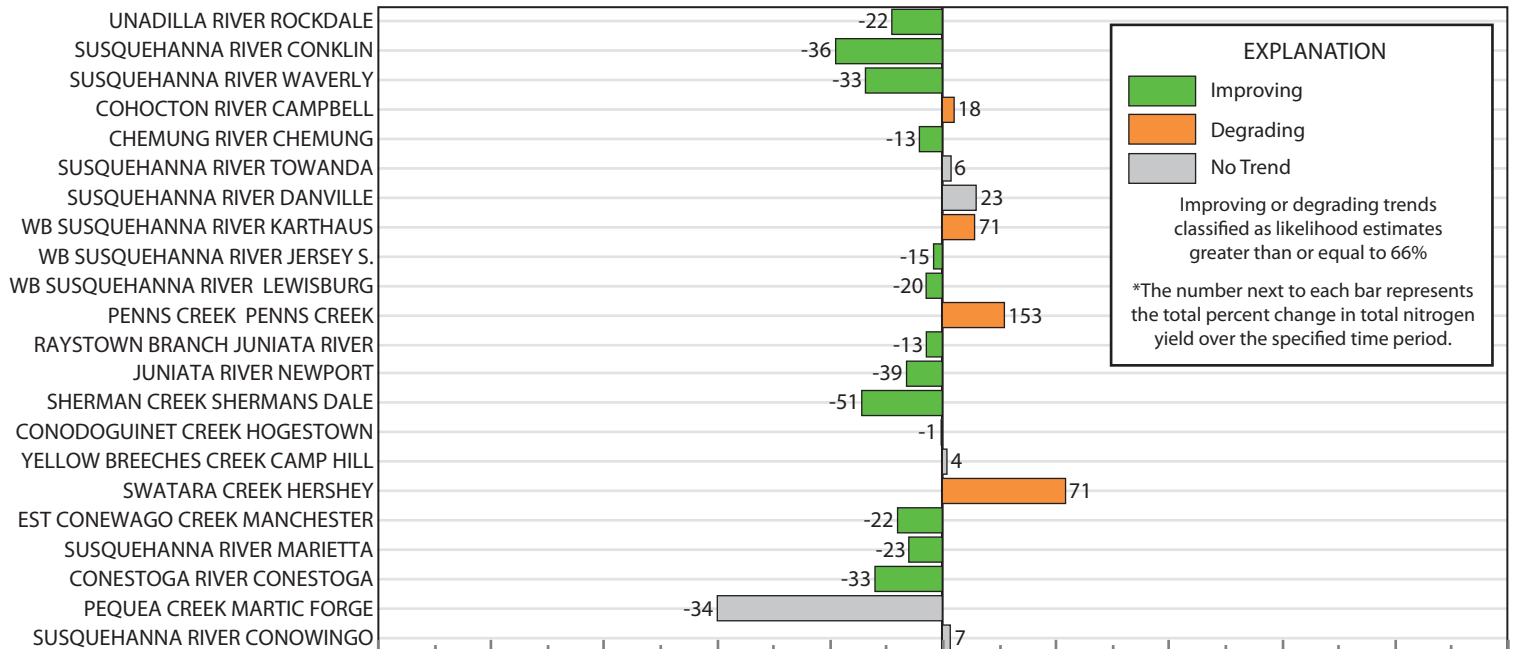
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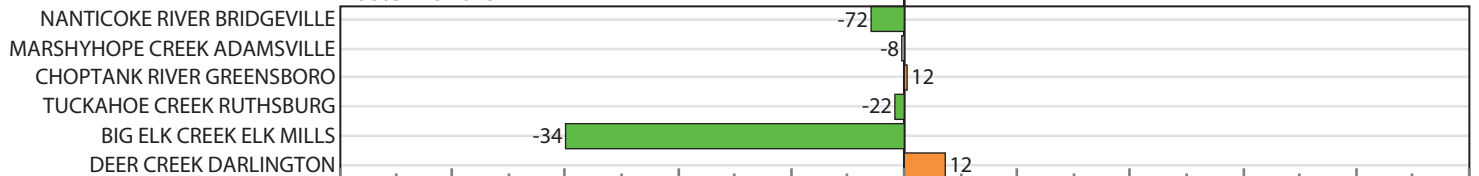




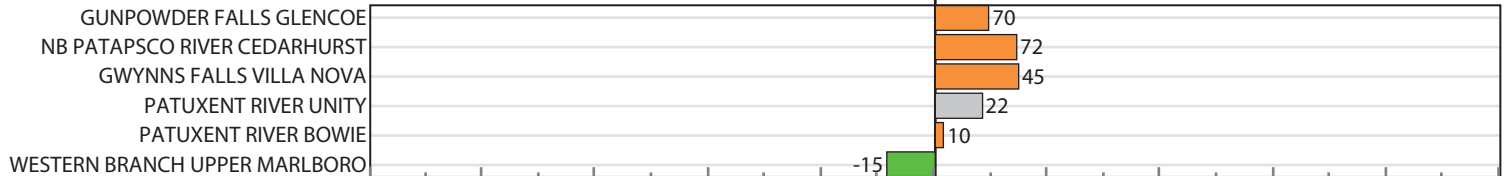
## Susquehanna



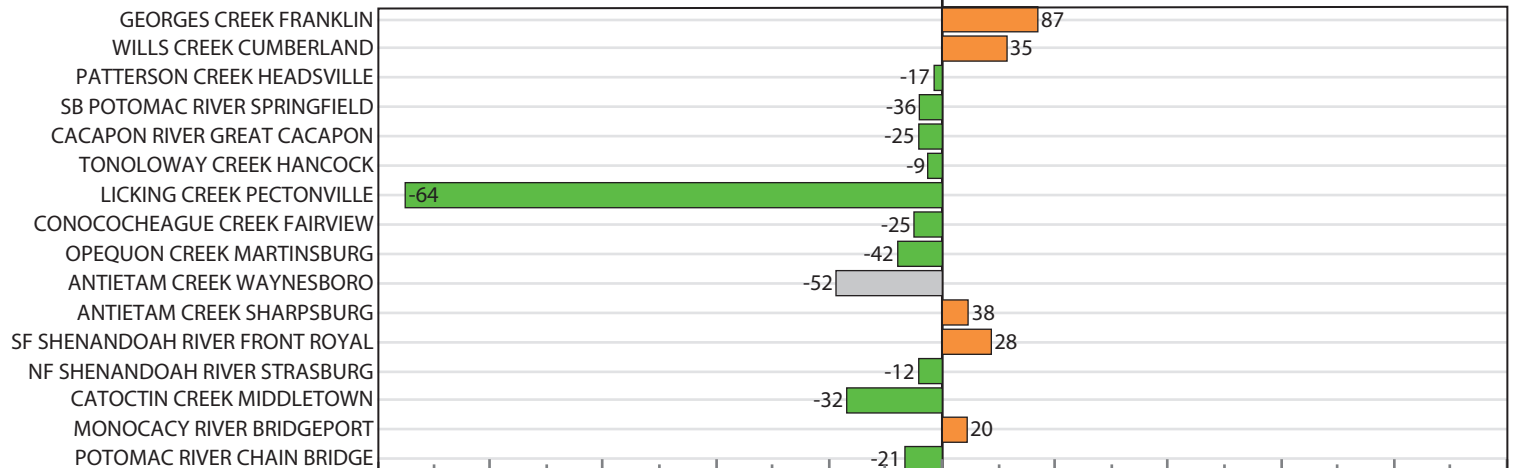
## Eastern Shore



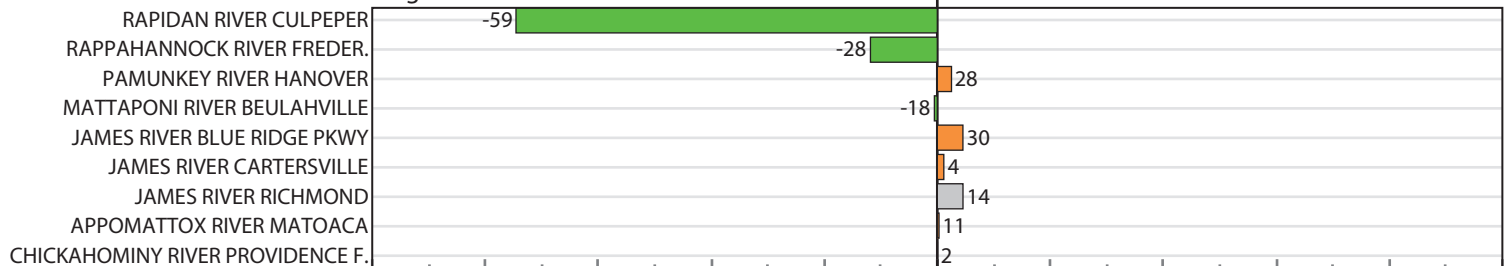
## Western Shore



## Potomac



## Virginia



-1,000,000 -800,000 -600,000 -400,000 -200,000 0 200,000 400,000 600,000 800,000 1,000,000

Change in Suspended Sediment Yield between 2005 and 2014, in pounds per square mile