MONITORING SURVEY RESULTS

FOR THE REVISED CCMP FOR THE DELAWARE ESTUARY

January 2019

This document provides a summary of the results compiled from an online survey administered between November 29, 2018 and December 14, 2018. The survey was created to help vet and prioritize information gathered at the October 30, 2018 Monitoring Workshop. This document was created by RK&K to inform the Monitoring Assessment process being led by the Partnership for the Delaware Estuary.

INTRODUCTION

As part of the revised Comprehensive Conservation and Management Plan (CCMP) for the Delaware Estuary, a Monitoring Approach was created to help track strategy implementation and progress on CCMP goals. The vision established by the Monitoring Approach involves convening a monitoring workshop every five years to assess critical monitoring projects in the region. The Monitoring Assessment would provide a baseline for regional monitoring programs and data infrastructure, help to link related monitoring efforts, and provide the opportunity to explore new connections among ecosystem features.

In the fall of 2018, PDE worked with RK&K to undertake two efforts. First, to compile an inventory of monitoring activities being undertaken in the Delaware Estuary region. Second, to hold a monitoring workshop at the John Heinz National Wildlife Refuge at Tinicum on Tuesday, October 30th, with the objectives of reviewing the draft inventory of monitoring programs, identifying gaps in data collection, and gathering input to help prioritize future monitoring efforts. Information gathered at the workshop was summarized and distilled to create questions for a follow-up survey.

THE MONITORING SURVEY

The purpose of the survey was to vet results from the workshop, aid in prioritizing and ranking results from the workshop, and gather additional information. RK&K sent a request to participate in the survey to PDE's list of nearly 300 experts (including those who took part in the monitoring workshop). The survey was structured to reflect the same thematic discussions that took place at the workshop, wherein the monitoring inventory was broken into four sets of parameters: non-plant living resources, plants and habitat, water quality in the Delaware River and Bay, and water quality in the tributaries. For each of these four main sections of the survey, respondents were asked to rank the importance of various parameters in a list; indicate high, medium, or low priority of that same set of parameters; provide information on whether additional parameters within that category should be considered; and provide information on any geographic data gaps in data collected within that category. Aside from the four main sections of the survey, participants were also asked to provide identifying information, give information about volunteer monitoring groups whose information should be included in the monitoring inventory, and provide information about the general security of their organization's monitoring funds.

Fifty-five people from 34 organizations, companies, and universities began the survey; of that number, 39 pursued the survey to completion and 16 responded to some but not all of the questions. All information,

including summary data and answers from each respondent, are included in the attached SurveyMonkey documents.

SURVEY TEXT AND SUMMARY RESULTS

Thank you for participating in the Delaware Estuary Monitoring Survey. The goals of this survey are to vet the results from the October 30th Monitoring Workshop, to aid in prioritizing/ranking results of the workshop, and to gather additional information. Please refer to the list of all Delaware Estuary Monitoring programs (as collected during this process) here [LINK], and leave it open while completing the survey.

IDENTIFYING INFORMATION

- 1. Please enter your contact information. Fifty-five people provided their information.
- 2. Select your area(s) of expertise (please select all that apply). Fifty-five people provided their information. Of the 21 options provided (including "other"), most respondents selected "water quality" (34 respondents), followed by "coastal ecology/function" (22 respondents).

WORKSHOP RESULTS: NON-PLANT LIVING RESOURCES

- 3. Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.
 - a. Freshwater bivalves (Score: 2.89; Rank: 2)
 - b. Invasive species (Score: 2.98; Rank: 1)
 - c. Marine mammals and sea turtles (Score: 1.59; Rank: 4)
 - d. Population-level monitoring (Score: 2.69; Rank: 3)
- 4. Here is a list of non-plant living resource parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.
 - a. Freshwater bivalves (Weighted Average: 2.40; 24/45 recommended high priority)
 - b. Invasive species (Weighted Average: 2.51; 25/45 recommended high priority)
 - c. Marine mammals and sea turtles (Weighted Average: 1.71; 7/45 recommended high priority)
 - d. Population-level monitoring (Weighted Average: 2.36; 19/45 recommended high priority)
- 5. Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future? Twenty respondents provided information. Please see SurveyMonkey documents for information.
- 6. Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts in the future? Twenty-one respondents provided information. Please see SurveyMonkey documents for information.

WORKSHOP RESULTS: PLANTS AND HABITAT

- 7. Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.
 - a. Buffer data (Score: 3.42; Rank: 6)
 - b. Cumulative impacts (Score: 5.47; Rank: 1)
 - c. Dredging data (Score: 4.03; Rank: 3)
 - d. Forest health (Score: 3.83; Rank: 5)
 - e. Sediment stratification (Score: 3.00; Rank 7)
 - f. Submerged habitat (Score: 4.57; Rank: 2)
 - g. Transition zone monitoring (Score: 4.00; Rank: 4)
- 8. Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think it is a low priority, a moderate priority, or a high priority.
 - a. Buffer data (Weighted Average: 2.00; 11/37 recommended high priority)
 - b. Cumulative impacts (Weighted Average: 2.69; 29/39 recommended high priority)
 - c. Dredging data (Weighted Average: 2.08; 13/39 recommended high priority)
 - d. Forest health (Weighted Average: 2.13; 11/38 recommended high priority)
 - e. Sediment stratification (Weighted Average: 1.81; 6/36 recommended high priority)
 - f. Submerged habitat (Weighted Average: 2.38; 18/39 recommended high priority)
 - g. Transition zone monitoring (Weighted Average: 2.19; 14/37 recommended high priority)
- 9. Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future? Seventeen respondents provided information. Please see SurveyMonkey documents for more information.
- 10. Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts in the future? Sixteen respondents provided information. Please see SurveyMonkey documents for more information.

Workshop Results: Water Monitoring – Delaware River and Bay

- 11. Here is a list of Delaware River and Bay water monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing parameters or not-yet robust monitoring parameters.
 - a. Endocrine Disruptors (Score: 4.51; Rank: 2)
 - b. Fish tissue analysis for bioaccumulating compounds (Score: 4.89; Rank: 1)
 - c. Microplastics (Score: 4.08; Rank: 4/5)
 - d. Monitoring conducted on the center channel replicated for the banks and at additional depths (Score: 3.05; Rank: 7)
 - e. PCBs (Score: 3.51; Rank: 6)
 - f. Pharmaceuticals (Score: 4.36; Rank: 3)
 - g. Phytotoxins, Cyanotoxins, Harmful Algal Bloom Toxins (Score: 4.08; Rank: 4/5)

- 12. Here is a list of Delaware River and Bay water monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think it is a low priority, a moderate priority, or a high priority.
 - a. Endocrine Disruptors (Weighted Average: 2.48; 20/40 recommended high priority)
 - b. Fish tissue analysis for bioaccumulating compounds (Weighted Average: 2.62; 26/39 recommended high priority)
 - c. Microplastics (Weighted Average: 2.27; 19/40 recommended high priority)
 - d. Monitoring conducted on the center channel replicated for the banks and at additional depths (Weighted Average: 2.10; 15/39 recommended high priority)
 - e. PCBs (Weighted Average: 2.21; 13/39 recommended high priority)
 - f. Pharmaceuticals (Weighted Average: 2.56; 23/39 recommended high priority)
 - g. Phytotoxins, Cyanotoxins, Harmful Algal Bloom Toxins (Weighted Average: 2.42; 21/40 recommended high priority)
- 13. Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future? Fourteen respondents provided information. Please see SurveyMonkey documents for more information.
- 14. Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts in the future? Fourteen respondents provided information. Please see SurveyMonkey documents for more information.

Workshop Results: Water Monitoring – Tributaries

- 15. Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.
 - a. Endocrine disruptors (Score: 4.51; Rank 5)
 - b. Fish tissue analysis (Score: 5.29; Rank 3)
 - c. Flow measurements (Score: 5.36; Rank 2)
 - d. Groundwater (Score: 5.03; Rank 4)
 - e. Nuisance algal blooms (Score: 3.56; Rank 7)
 - f. Pharmaceuticals (Score: 4.08; Rank 6)
 - g. Temperatures at short intervals (Score: 3.14; Rank 8)
 - h. Wet weather (storm flow) monitoring (Score: 5.51; Rank 1)
- 16. Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think it is a low priority, a moderate priority, or a high priority.
 - a. Endocrine disruptors (Weighted Average: 2.25; 17/36 recommended high priority)
 - b. Fish tissue analysis (Weighted Average: 2.47; 19/36 recommended high priority)
 - c. Flow measurements (Weighted Average: 2.50; 19/36 recommended high priority)
 - d. Groundwater (Weighted Average: 2.46; 20/35 recommended high priority)

- e. Nuisance algal blooms (Weighted Average: 2.11; 12/36 recommended high priority)
- f. Pharmaceuticals (Weighted Average: 2.20; 14/35 recommended high priority)
- g. Temperatures at short intervals (Weighted Average: 1.86; 22/36 recommended high priority)
- h. Wet weather (storm flow) monitoring (Weighted Average: 2.61; 22/36 recommended high priority)
- 17. Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future? Eleven respondents provided information. Please see SurveyMonkey documents for more information.
- 18. Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts in the future? Eleven respondents provided information. Please see SurveyMonkey documents for more information.

Additional Monitoring Programs and Funding

- 19. Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?
 - a. Yes (10)
 - b. No (27)
- 20. If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)? Nine respondents provided information. Please see the SurveyMonkey documents for more information.
- 21. Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs and activities within the Delaware Estuary?
 - a. Yes (9)
 - b. No (8)
 - c. Uncertain (21)
- 22. If you answered "no" for Question 21, what level of funding is needed for which program? Nine respondents provided information. Please see the SurveyMonkey documents for more information.

If you have not yet contributed a list of your past or current monitoring programs to the inventory, it's not too late! Please email Sari Rothrock at SRothrock@rkk.com to request a worksheet for submission.

Thank you for your time.

APPENDIX A

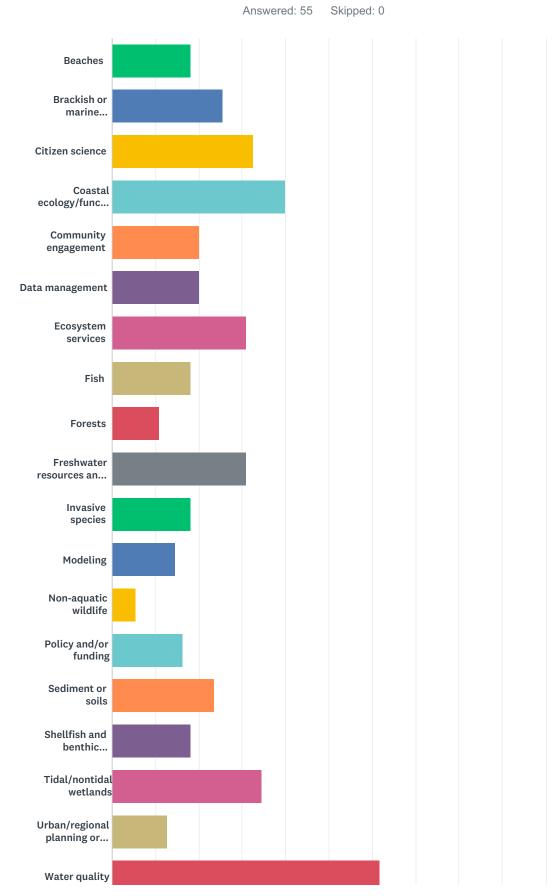
SURVEYMONKEY SUMMARY OF ALL SURVEY RESPONSES

Q1 Please enter your contact information.

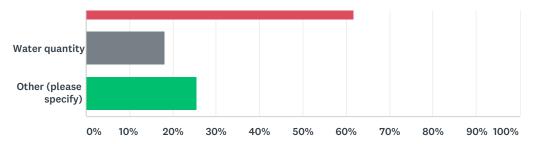
Answered: 55 Skipped: 0

ANSWER CHOICES	RESPONSES	
Name	100.00%	55
Organization	100.00%	55
Address	0.00%	0
Address 2	0.00%	0
City / Town	0.00%	0
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	100.00%	55
Phone Number	0.00%	0

Q2 Select your area(s) of expertise (please select all that apply)

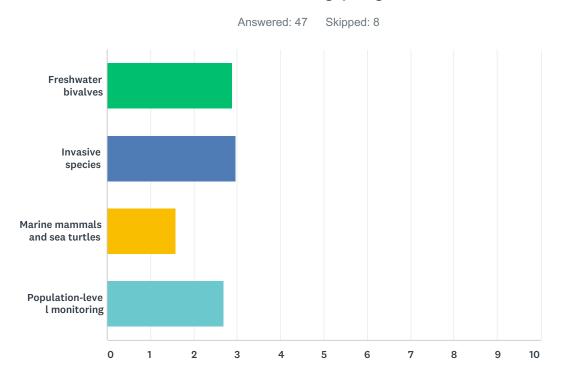


Delaware Estuary Monitoring Survey



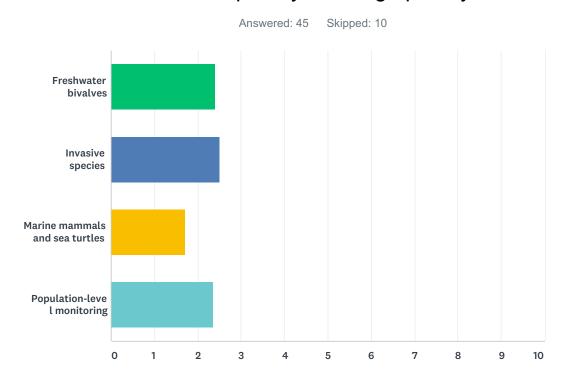
ANSWER CHOICES	RESPONSES	
Beaches	18.18%	10
Brackish or marine resources and organisms	25.45%	14
Citizen science	32.73%	18
Coastal ecology/function	40.00%	22
Community engagement	20.00%	11
Data management	20.00%	11
Ecosystem services	30.91%	17
Fish	18.18%	10
Forests	10.91%	6
Freshwater resources and organisms	30.91%	17
Invasive species	18.18%	10
Modeling	14.55%	8
Non-aquatic wildlife	5.45%	3
Policy and/or funding	16.36%	9
Sediment or soils	23.64%	13
Shellfish and benthic resources	18.18%	10
Tidal/nontidal wetlands	34.55%	19
Urban/regional planning or land use	12.73%	7
Water quality	61.82%	34
Water quantity	18.18%	10
Other (please specify)	25.45%	14
Total Respondents: 55		

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.



	1	2	3	4	TOTAL	SCORE
Freshwater bivalves	31.82%	31.82%	29.55%	6.82%		
	14	14	13	3	44	2.89
Invasive species	39.53%	27.91%	23.26%	9.30%		
	17	12	10	4	43	2.98
Marine mammals and sea turtles	9.09%	9.09%	13.64%	68.18%		
	4	4	6	30	44	1.59
Population-level monitoring	26.67%	28.89%	31.11%	13.33%		
	12	13	14	6	45	2.69

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.



	LOW PRIORITY	MODERATE PRIORITY	HIGH PRIORITY	TOTAL	WEIGHTED AVERAGE
Freshwater bivalves	13.33%	33.33%	53.33%		
	6	15	24	45	2.40
Invasive species	4.44%	40.00%	55.56%		
	2	18	25	45	2.51
Marine mammals and sea turtles	44.44%	40.00%	15.56%		
	20	18	7	45	1.71
Population-level monitoring	6.67%	51.11%	42.22%		
	3	23	19	45	2.36

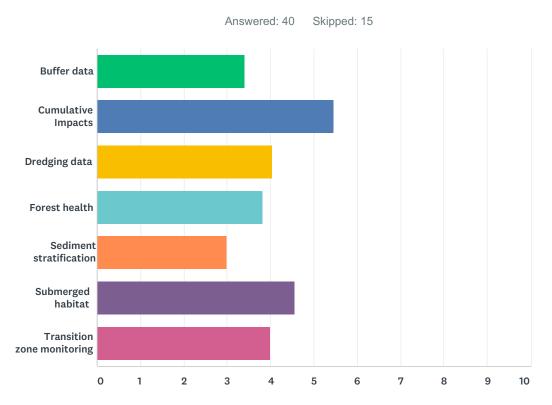
Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Answered: 20 Skipped: 35

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

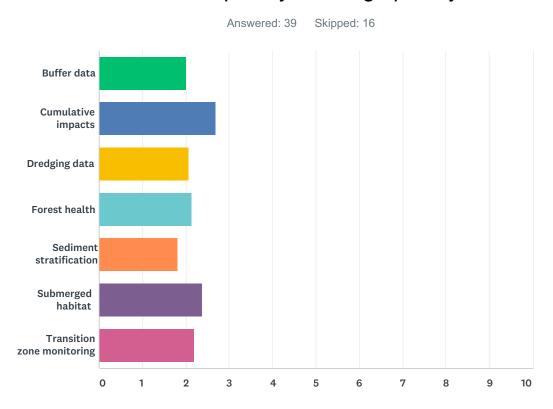
Answered: 21 Skipped: 34

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.



	1	2	3	4	5	6	7	TOTAL	SCORE
Buffer data	8.33%	13.89%	8.33%	13.89%	11.11%	25.00%	19.44%		
	3	5	3	5	4	9	7	36	3.42
Cumulative Impacts	42.11%	13.16%	15.79%	15.79%	7.89%	2.63%	2.63%		
	16	5	6	6	3	1	1	38	5.47
Dredging data	13.51%	13.51%	21.62%	8.11%	18.92%	5.41%	18.92%		
	5	5	8	3	7	2	7	37	4.03
Forest health	11.11%	22.22%	8.33%	11.11%	11.11%	16.67%	19.44%		
	4	8	3	4	4	6	7	36	3.83
Sediment stratification	0.00%	13.89%	0.00%	22.22%	22.22%	19.44%	22.22%		
	0	5	0	8	8	7	8	36	3.00
Submerged habitat	21.62%	5.41%	27.03%	16.22%	16.22%	10.81%	2.70%		
	8	2	10	6	6	4	1	37	4.57
Transition zone monitoring	10.26%	17.95%	17.95%	12.82%	10.26%	17.95%	12.82%		
G	4	7	7	5	4	7	5	39	4.00

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.



	LOW PRIORITY	MODERATE PRIORITY	HIGH PRIORITY	TOTAL	WEIGHTED AVERAGE
Buffer data	29.73%	40.54%	29.73%		
	11	15	11	37	2.00
Cumulative impacts	5.13%	20.51%	74.36%		
	2	8	29	39	2.69
Dredging data	25.64%	41.03%	33.33%		
	10	16	13	39	2.08
Forest health	15.79%	55.26%	28.95%		
	6	21	11	38	2.13
Sediment stratification	36.11%	47.22%	16.67%		
	13	17	6	36	1.81
Submerged habitat	7.69%	46.15%	46.15%		
	3	18	18	39	2.38
Transition zone monitoring	18.92%	43.24%	37.84%		
	7	16	14	37	2.19

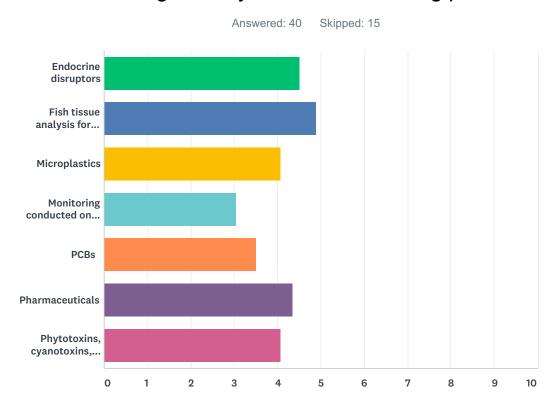
Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Answered: 17 Skipped: 38

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

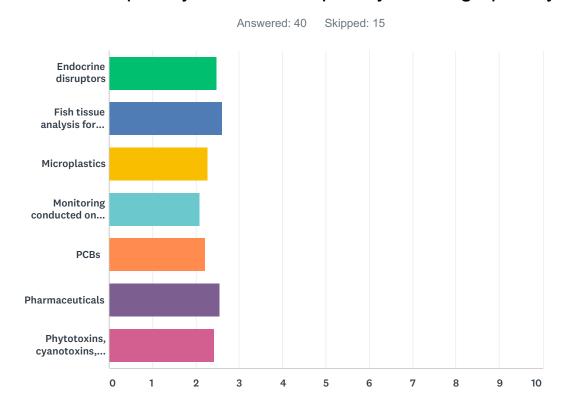
Answered: 16 Skipped: 39

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.



	1	2	3	4	5	6	7	TOTAL	SCORE
Endocrine disruptors	10.81%	21.62%	18.92%	24.32%	10.81%	8.11%	5.41%		
	4	8	7	9	4	3	2	37	4.51
Fish tissue analysis for bioaccumulating	16.67%	33.33%	16.67%	5.56%	13.89%	11.11%	2.78%		
compounds	6	12	6	2	5	4	1	36	4.89
Microplastics	15.79%	15.79%	10.53%	18.42%	13.16%	10.53%	15.79%		
·	6	6	4	7	5	4	6	38	4.08
Monitoring conducted on the center	21.05%	2.63%	7.89%	0.00%	13.16%	7.89%	47.37%		
channel replicated for the banks and at additional depths	8	1	3	0	5	3	18	38	3.05
PCBs	10.81%	5.41%	16.22%	13.51%	10.81%	32.43%	10.81%		
	4	2	6	5	4	12	4	37	3.51
Pharmaceuticals	11.11%	11.11%	25.00%	25.00%	13.89%	11.11%	2.78%		
	4	4	9	9	5	4	1	36	4.36
Phytotoxins, cyanotoxins, Harmful Algal	17.50%	15.00%	7.50%	12.50%	22.50%	15.00%	10.00%		
Bloom toxins	7	6	3	5	9	6	4	40	4.08

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.



	LOW PRIORITY	MODERATE PRIORITY	HIGH PRIORITY	TOTAL	WEIGHTED AVERAGE
Endocrine disruptors	2.50% 1	47.50% 19	50.00% 20	40	2.48
Fish tissue analysis for bioaccumulating compounds	5.13% 2	28.21% 11	66.67% 26	39	2.62
Microplastics	20.00% 8	32.50% 13	47.50% 19	40	2.27
Monitoring conducted on the center channel replicated for the banks and at additional depths	28.21% 11	33.33% 13	38.46% 15	39	2.10
PCBs	12.82% 5	53.85% 21	33.33% 13	39	2.21
Pharmaceuticals	2.56% 1	38.46% 15	58.97% 23	39	2.56
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	10.00%	37.50% 15	52.50% 21	40	2.42

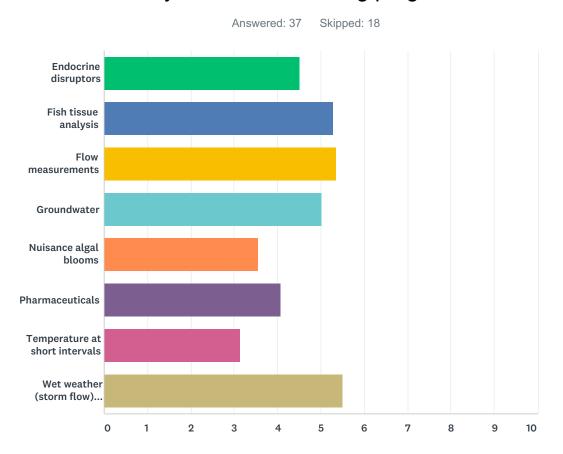
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Answered: 14 Skipped: 41

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

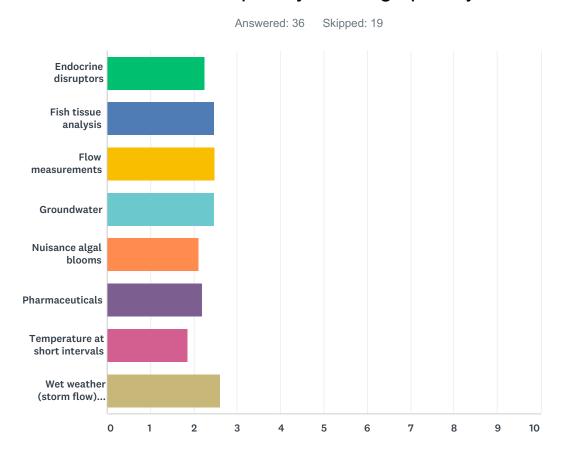
Answered: 14 Skipped: 41

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.



	1	2	3	4	5	6	7	8	TOTAL	SCORE
Endocrine disruptors	17.14% 6	5.71% 2	14.29% 5	17.14% 6	8.57% 3	11.43% 4	8.57% 3	17.14% 6	35	4.51
Fish tissue analysis	14.29%	22.86%	17.14%	5.71%	17.14%	11.43%	8.57%	2.86%		
	5	8	6	2	6	4	3	1	35	5.29
Flow measurements	19.44%	8.33%	22.22%	16.67%	16.67%	8.33%	5.56%	2.78%		
	7	3	8	6	6	3	2	1	36	5.36
Groundwater	11.43%	17.14%	14.29%	17.14%	20.00%	5.71%	8.57%	5.71%		
	4	6	5	6	7	2	3	2	35	5.03
Nuisance algal blooms	11.11%	2.78%	2.78%	13.89%	8.33%	19.44%	27.78%	13.89%		
	4	1	1	5	3	7	10	5	36	3.56
Pharmaceuticals	8.11%	2.70%	13.51%	16.22%	16.22%	18.92%	16.22%	8.11%		
	3	1	5	6	6	7	6	3	37	4.08
Temperature at short	2.70%	10.81%	8.11%	5.41%	8.11%	13.51%	16.22%	35.14%		
intervals	1	4	3	2	3	5	6	13	37	3.14
Wet weather (storm flow)	18.92%	32.43%	10.81%	8.11%	5.41%	8.11%	5.41%	10.81%		
monitoring	7	12	4	3	2	3	2	4	37	5.51

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.



	LOW PRIORITY	MODERATE PRIORITY	HIGH PRIORITY	TOTAL	WEIGHTED AVERAGE
Endocrine disruptors	22.22% 8	30.56% 11	47.22% 17	36	2.25
	0		17	30	2.23
Fish tissue analysis	5.56%	41.67%	52.78%		
	2	15	19	36	2.47
Flow measurements	2.78%	44.44%	52.78%		
	1	16	19	36	2.50
Groundwater	11.43%	31.43%	57.14%		
	4	11	20	35	2.46
Nuisance algal blooms	22.22%	44.44%	33.33%		
	8	16	12	36	2.11
Pharmaceuticals	20.00%	40.00%	40.00%		
	7	14	14	35	2.20
Temperature at short intervals	27.78%	58.33%	13.89%		
	10	21	5	36	1.86
Wet weather (storm flow)	0.00%	38.89%	61.11%		
monitoring	0	14	22	36	2.61

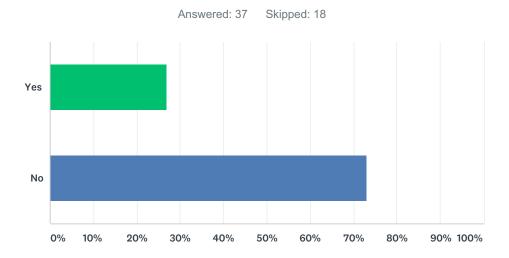
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Answered: 11 Skipped: 44

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Answered: 11 Skipped: 44

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

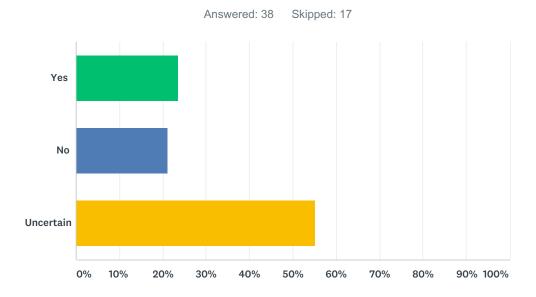


ANSWER CHOICES	RESPONSES	
Yes	27.03%	10
No	72.97%	27
TOTAL		37

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Answered: 9 Skipped: 46

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?



ANSWER CHOICES	RESPONSES	
Yes	23.68%	9
No	21.05%	8
Uncertain	55.26%	21
TOTAL		38

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Answered: 9 Skipped: 46

APPENDIX B

SURVEYMONKEY COMPILATION OF ALL SURVEY RESPONSES

#1

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 11:54:28 AM Last Modified: Thursday, November 29, 2018 12:02:01 PM

Time Spent: 00:07:33

IP Address: 216.228.143.180

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Dewayne Fox

Organization Delaware State University

Email Address dfox@desu.edu

Q2 Select your area(s) of expertise (please select all that apply)

Brackish or marine resources and

organisms

Coastal ecology/function,

Fish,

Freshwater resources and

organisms

Invasive species

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves	4
Invasive species	1
Marine mammals and sea turtles	3
Population-level monitoring	2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Low Priority

Invasive species

High Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Atlantic and Shortnose Sturgeon- currently neither species is being monitored by the States of PA an NJ. In the case of Shortnose nobody in the estuary is looking at them. In the case of Atlantic Sturgeon the State of DE has a juvenile monitoring project but that is limited to scope and scale.

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Yes- upper watershed above CD Canal

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	7
Cumulative Impacts	2
Dredging data	1
Forest health	4
Sediment stratification	5
Submerged habitat	3
Transition zone monitoring	6

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data	Low Priority
Cumulative impacts	High Priority
Dredging data	High Priority
Forest health	Moderate Priority
Sediment stratification	Moderate Priority
Submerged habitat	Moderate Priority
Transition zone monitoring	Moderate Priority
Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are	Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

there any geographies that you believe would benefit from more robust monitoring efforts for plant and

habitat parameters in the future?

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	1
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	5
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	3
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	6

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	Moderate Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Low Priority
Q13 Based on a review of the draft monitoring inventory	Respondent skipped this guestion
and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	1
Fish tissue analysis	2
Flow measurements	3
Groundwater	5
Nuisance algal blooms	7
Pharmaceuticals	4
Temperature at short intervals	6
Wet weather (storm flow) monitoring	8

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors

High Priority
Fish tissue analysis

Flow measurements

Moderate Priority

Groundwater

Moderate Priority

Nuisance algal blooms

Low Priority

Pharmaceuticals

Moderate Priority

Moderate Priority

Temperature at short intervals Low Priority

Wet weather (storm flow) monitoring Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

No

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Respondent skipped this question

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

No

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

If asking for a dollar amount difficult to come up with at this point but on the order of \$200K/year to "monitor".

#2

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 12:29:47 PM Last Modified: Thursday, November 29, 2018 12:39:33 PM

Time Spent: 00:09:46 **IP Address:** 167.21.41.14

Page 2: Identifying Information

Q1 Please enter your contact information.

Name David Wolanski

Organization Delaware DNREC

Email Address david.wolanski@state.de.us

Q2 Select your area(s) of expertise (please select all that

apply)

Data management,

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 2
Marine mammals and sea turtles 4

Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Low Priority

Invasive species Moderate Priority

Marine mammals and sea turtles Low Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

not at this time

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

hard to say without GIS coverage

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

not really qualified to answer

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

not really qualified to answer

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	6
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	7
Monitoring conducted on the center channel replicated for the banks and at additional depths	1
PCBs	4
Pharmaceuticals	5
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	3

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Low Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Moderate Priority
Pharmaceuticals	Low Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

no

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

without GIS... hard to say

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	8
Fish tissue analysis	3
Flow measurements	1
Groundwater	7
Nuisance algal blooms	6
Pharmaceuticals	5
Temperature at short intervals	4
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Low Priority
Fish tissue analysis	High Priority
Flow measurements	High Priority
Groundwater	Low Priority
Nuisance algal blooms	Moderate Priority

Pharmaceuticals Low Priority

Temperature at short intervals Moderate Priority

Wet weather (storm flow) monitoring High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

nο

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

without GIS... no way to say

Page 7: Additional Monitoring Programs and Funding

be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

#3

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 1:15:24 PM Last Modified: Thursday, November 29, 2018 1:27:42 PM

Time Spent: 00:12:18 **IP Address:** 216.99.180.227

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Kimberly Long

Organization Exelon Corporation

Email Address kimberly.long@exeloncorp.com

Q2 Select your area(s) of expertise (please select all that apply)

that Coastal ecology/function,

Data management,

Ecosystem services,

Fish,

Forests,

Freshwater resources and

organisms

Invasive species,

Tidal/nontidal ,

wetlands

Urban/regional planning or land use,

Water quality,

Water quantity

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2

Invasive species 3

Marine mammals and sea turtles 4

Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

Moderate Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

NA

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

NA

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	2
Cumulative Impacts	4
Dredging data	5
Forest health	1
Sediment stratification	7
Submerged habitat	3
Transition zone monitoring	6

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data High Priority
Cumulative impacts High Priority

Dredging data Moderate Priority

Forest health High Priority
Sediment stratification Low Priority
Submerged habitat High Priority

Transition zone monitoring Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

NA

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

NA

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	2
Fish tissue analysis for bioaccumulating compounds	1
Microplastics	4
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	6
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors **High Priority** Fish tissue analysis for bioaccumulating compounds **High Priority** Microplastics **High Priority** Monitoring conducted on the center channel replicated for the **Low Priority**

banks and at additional depths

PCBs Moderate Priority

Pharmaceuticals High Priority Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins **High Priority**

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

NA

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

NA

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	2
Fish tissue analysis	1
Flow measurements	3
Groundwater	4
Nuisance algal blooms	6
Pharmaceuticals	5
Temperature at short intervals	8
Wet weather (storm flow) monitoring	7

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors High Priority

Fish tissue analysis High Priority

Flow measurements Moderate Priority

Groundwater Moderate Priority

Nuisance algal blooms

High Priority

Pharmaceuticals

High Priority

Temperature at short intervals Low Priority

Wet weather (storm flow) monitoring Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

NA

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

NA

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could Yes be included in the Delaware Estuary monitoring assessment?

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Center in the Park - Philadelphia, volunteer WQ monitoring group; other similar watershed organizations

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Yes

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?



INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 2:06:49 PM Last Modified: Thursday, November 29, 2018 2:20:56 PM

Time Spent: 00:14:06 **IP Address:** 204.46.141.164

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Rachael Graham
Organization US EPA Region 2

Email Address graham.rachael@epa.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Citizen science,

Water quality,

Other (please specify):

Superfund, sampling

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority
Invasive species High Priority

Marine mammals and sea turtles Moderate Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?	Respondent skipped this question
Page 4: Workshop Results: Plants and Habitat Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.	Respondent skipped this question
Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.	Respondent skipped this question
Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?	Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

habitat parameters in the future?

Endocrine disruptors

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	1
Microplastics	2
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	6
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Moderate Priority

·	
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	Moderate Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.	Respondent skipped this question
Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.	Respondent skipped this question
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question

#5

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 2:02:02 PM Last Modified: Thursday, November 29, 2018 2:24:13 PM

Time Spent: 00:22:11 **IP Address:** 204.46.134.119

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Ralph Spagnolo

Organization USEPA

Email Address spagnolo.ralph@epa.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Brackish or marine resources and

organisms

Coastal ecology/function

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 1
Marine mammals and sea turtles 2
Population-level monitoring 4

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Moderate Priority

Invasive species High Priority

Marine mammals and sea turtles High Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

shallow water bentic botton-subtidal non-vegetated

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

nο

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	7
Cumulative Impacts	3
Dredging data	4
Forest health	6
Sediment stratification	5
Submerged habitat	1
Transition zone monitoring	2

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Moderate Priority

Moderate Priority

Forest health

Moderate Priority

Sediment stratification

High Priority

High Priority

High Priority

Moderate Priority

Moderate Priority

Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

shallow unvergetated bottm

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

nο

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	1
Monitoring conducted on the center channel replicated for the banks and at additional depths	3
PCBs	6
Pharmaceuticals	5
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	7

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Moderate Priority

Endocrine disruptors	Woderate Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Moderate Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

no

Endocrino dicruntore

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

none

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	3
Fish tissue analysis	6
Flow measurements	5
Groundwater	4
Nuisance algal blooms	7
Pharmaceuticals	8
Temperature at short intervals	1
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors **High Priority** Fish tissue analysis **Moderate Priority** Flow measurements **Moderate Priority** Groundwater **High Priority** Nuisance algal blooms **Moderate Priority Pharmaceuticals Moderate Priority** Temperature at short intervals **High Priority High Priority** Wet weather (storm flow) monitoring

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

no

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

none

Page 7: Additional	Monitoring	Programs	and Funding
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Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

No

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Respondent skipped this question

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Uncertain

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

#6

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 2:59:28 PM Last Modified: Thursday, November 29, 2018 3:09:32 PM

Time Spent: 00:10:04

IP Address: 128.118.175.206

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Raymond Najjar

Organization The Pennsylvania State University

Email Address rgn1@psu.edu

Q2 Select your area(s) of expertise (please select all that

apply)

Modeling,

Tidal/nontidal

wetlands

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Q21 Does your organization anticipate having sufficient
funding over the next ten years to carry out existing
monitoring programs within the Delaware Estuary?

Respondent skipped this question

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

#7

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 3:27:57 PM **Last Modified:** Thursday, November 29, 2018 3:37:03 PM

Time Spent: 00:09:06 **IP Address:** 74.92.68.6

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Ryan Rebozo

Organization Pinelands Preservation Alliance

Email Address ryan@pinelandsalliance.org

Q2 Select your area(s) of expertise (please select all that

apply)

Beaches,

Coastal ecology/function,

Forests,

Invasive species

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 2

Marine mammals and sea turtles 4

Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Moderate Priority

Invasive species High Priority

Marine mammals and sea turtles Moderate Priority

Population-level monitoring High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	7
Cumulative Impacts	1
Dredging data	5
Forest health	4
Sediment stratification	2
Submerged habitat	3
Transition zone monitoring	6

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Moderate Priority

Forest health

High Priority

Sediment stratification

High Priority

Submerged habitat

High Priority

Moderate Priority

Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	2
Fish tissue analysis for bioaccumulating compounds	1
Microplastics	3
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	5
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	6

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	6
Fish tissue analysis	1
Flow measurements	5
Groundwater	2
Nuisance algal blooms	7
Pharmaceuticals	3
Temperature at short intervals	8
Wet weather (storm flow) monitoring	4

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain

#8

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 3:59:41 PM Last Modified: Thursday, November 29, 2018 4:00:24 PM

Time Spent: 00:00:42 **IP Address:** 144.118.96.214

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Stefanie Kroll

Organization ANS

Email Address sak345@drexel.edu

Q2 Select your area(s) of expertise (please select all that apply)

Citizen science,

Freshwater resources and

organisms

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Respondent skipped this question

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

#9

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 3:58:11 PM **Last Modified:** Thursday, November 29, 2018 4:33:59 PM

Time Spent: 00:35:48 IP Address: 50.248.133.13

Page 2: Identifying Information

Q1 Please enter your contact information.

Name **Laura Crane**

Organization The Nature Conservancy, NJ

Email Address laura.moritzen@tnc.org

Q2 Select your area(s) of expertise (please select all that

apply)

Brackish or marine resources and

organisms

Coastal ecology/function,

Shellfish and benthic

resources

Tidal/nontidal wetlands

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

1

Freshwater bivalves 2

Invasive species 3

Marine mammals and sea turtles 4

Population-level monitoring

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves	Moderate Priority
Invasive species	Moderate Priority
Marine mammals and sea turtles	Low Priority
Population-level monitoring	High Priority
Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q6 Based on a review of the draft monitoring inventory	Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	4
Cumulative Impacts	5
Dredging data	1
Forest health	7
Sediment stratification	2
Submerged habitat	6
Transition zone monitoring	3

Buffor data

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Moderate Priority

Buffer data	Moderate Priority
Cumulative impacts	Moderate Priority
Dredging data	High Priority
Forest health	Moderate Priority
Sediment stratification	High Priority
Submerged habitat	Moderate Priority
Transition zone monitoring	High Priority
Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	7
Fish tissue analysis for bioaccumulating compounds	5
Microplastics	4
Monitoring conducted on the center channel replicated for the banks and at additional depths	6
PCBs	3
Pharmaceuticals	2
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	1

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	4
Fish tissue analysis	2
Flow measurements	6
Groundwater	3
Nuisance algal blooms	7
Pharmaceuticals	1
Temperature at short intervals	8
Wet weather (storm flow) monitoring	5

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis	High Priority
Flow measurements	Moderate Priority
Groundwater	High Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	High Priority
Temperature at short intervals	Low Priority
Wet weather (storm flow) monitoring	Moderate Priority
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding	
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 4:22:27 PM **Last Modified:** Thursday, November 29, 2018 4:38:37 PM

Time Spent: 00:16:09

IP Address: 216.228.143.180

Page 2: Identifying Information

Q1 Please enter your contact information.

Name **Gulnihal Ozbay**

Organization **Delaware State University**

Email Address gozbay@desu.edu

Q2 Select your area(s) of expertise (please select all that apply)

Brackish or marine resources and

organisms

Citizen science,

Coastal ecology/function,

Ecosystem services,

Fish,

Sediment or

soils

Shellfish and benthic

resources

Water quality,

Water quantity

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2 Invasive species 3 Marine mammals and sea turtles 1

Population-level monitoring 4 **Q4** Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

High Priority

Marine mammals and sea turtles

High Priority

High Priority

Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Commercial fish like salmon and tuna

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

urban waters

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	7
Cumulative Impacts	4
Dredging data	3
Forest health	2
Sediment stratification	5
Submerged habitat	1
Transition zone monitoring	6

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

High Priority

Forest health

High Priority

Sediment stratification

Moderate Priority

Moderate Priority

High Priority

High Priority

High Priority

High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Phragmites invasion and horseshoe crabs

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

tributaries of estuaries and urban brackish water setting

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	6
Fish tissue analysis for bioaccumulating compounds	5
Microplastics	4
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	3
Pharmaceuticals	2
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	1

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

new/invasive plants merging

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

urban settings and transitional areas

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	5
Fish tissue analysis	2
Flow measurements	4
Groundwater	6
Nuisance algal blooms	1
Pharmaceuticals	3
Temperature at short intervals	7
Wet weather (storm flow) monitoring	8

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors High Priority

Fish tissue analysis High Priority

Flow measurements Moderate Priority

Groundwater High Priority
Nuisance algal blooms High Priority
Pharmaceuticals High Priority

Temperature at short intervals Moderate Priority

Wet weather (storm flow) monitoring Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Sedimentation and particle transport

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

little creeks and where freshwater mixes with salt water

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Nature Conservancy

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

No

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Need continues monitoring for HABs & nutrients

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 4:51:42 PM **Last Modified:** Thursday, November 29, 2018 5:23:35 PM

Time Spent: 00:31:53 **IP Address:** 50.246.115.161

Page 2: Identifying Information

Q1 Please enter your contact information.

Name **Drew Budelis**

Organization Versar

Email Address dbudelis@versar.com

Q2 Select your area(s) of expertise (please select all that

apply)

Beaches,

Brackish or marine resources and

organisms

Coastal ecology/function,

Data management,

Ecosystem services,

Fish,

Freshwater resources and

organisms

Invasive species,

Modeling,

Sediment or

soils

Shellfish and benthic

resources

Water quality,

Water quantity,

Other (please

specify):

The expertise noted above represent those of the team that I manage. I don't necessarily have those expertise as an

individual.

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves	4
Invasive species	1
Marine mammals and sea turtles	2
Population-level monitoring	3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

Moderate Priority

Marine mammals and sea turtles

Moderate Priority

Population-level monitoring

Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

American eel,

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Non-tidal / Tidal Interface

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	4
Cumulative Impacts	1
Dredging data	5
Forest health	7
Sediment stratification	6
Submerged habitat	3
Transition zone monitoring	2

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data Low Priority

Cumulative impacts High Priority

Dredging data Low Priority

Forest health Moderate Priority

Sediment stratification

Low Priority

Submerged habitat

High Priority

Transition zone monitoring

High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Invasive species

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Q16 Here is a list of tributary monitoring parameters that	Respondent skipped this question
Wet weather (storm flow) monitoring	2
Temperature at short intervals	5
Pharmaceuticals	8
Nuisance algal blooms	6
Groundwater	7
Flow measurements	3
Fish tissue analysis	1
Endocrine disruptors	4

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

No

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, November 29, 2018 8:36:23 PM Last Modified: Thursday, November 29, 2018 8:53:04 PM

Time Spent: 00:16:40 **IP Address:** 71.175.10.220

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Richard Hunt Mcnutt McNutt

Organization President

Email Address tidewatersgp@gmail.com

Q2 Select your area(s) of expertise (please select all that apply)

Beaches,

Brackish or marine resources and organisms

Citizen science,

Coastal ecology/function,

Community engagement,

Data management,

Ecosystem services,

Fish,

Forests,

Freshwater resources and

organisms

Invasive species,

Modeling,

Non-aquatic wildlife,

Policy and/or funding,

Sediment or ,

soils

Shellfish and benthic

resources

Tidal/nontidal ,

wetlands

Urban/regional planning or land use,

Water quality,

Water quantity,

Other (please

specify):

All earth water is connected

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Population-level monitoring

1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

High Priority

Marine mammals and sea turtles

High Priority

High Priority

High Priority

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Anti degradation water quality - Spectial Protection waters. SPW

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Delaware River tidewaters - Trenton to the ocean

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Transition zone monitoring 1

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data High Priority
Cumulative impacts High Priority
Dredging data High Priority
Forest health High Priority
Sediment stratification High Priority
Submerged habitat High Priority
Transition zone monitoring High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Non degradation water policy by law

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Trenton to the ocean

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

1

Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors

High Priority
Fish tissue analysis for bioaccumulating compounds

High Priority

Microplastics

High Priority

High Priority

High Priority

High Priority

High Priority

High Priority

banks and at additional depths

PCBs High Priority
Pharmaceuticals High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Anti degradation water policy implemented by federal law

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Trento to the ocean forever by law

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	1
Fish tissue analysis	2
Flow measurements	4
Groundwater	3
Nuisance algal blooms	5
Pharmaceuticals	6
Temperature at short intervals	7
Wet weather (storm flow) monitoring	8

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	High Priority
Pharmaceuticals	High Priority
Temperature at short intervals	High Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Anti degradation water policy federally implemented

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Trenton to the ocean

Page 7: Additional Monitoring Programs and Funding

be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Friday, November 30, 2018 7:52:23 AM Last Modified: Friday, November 30, 2018 8:02:47 AM

Time Spent: 00:10:24 **IP Address:** 167.21.41.12

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Todd Keyser

Organization DE DNREC DWHS

Email Address todd.keyser@state.de.us

Q2 Select your area(s) of expertise (please select all that

apply)

Sediment or

soils

Water quality,

Other (please specify):

Toxics How did this not make the list?

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1

Invasive species 3

Marine mammals and sea turtles

Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority

Invasive species Moderate Priority

Marine mammals and sea turtles Moderate Priority

Population-level monitoring High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6
Cumulative Impacts	2
Dredging data	1
Forest health	7
Sediment stratification	4
Submerged habitat	5
Transition zone monitoring	3

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data High Priority
Cumulative impacts High Priority
Dredging data High Priority
Forest health Moderate Priority
Sediment stratification Moderate Priority
Submerged habitat Moderate Priority
Transition zone monitoring Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	3
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	5
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	1
Pharmaceuticals	6
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	4

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	High Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

The draft monitoring inventory did not open for this survey

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	3
Fish tissue analysis	1
Flow measurements	5
Groundwater	2
Nuisance algal blooms	7
Pharmaceuticals	4
Temperature at short intervals	6
Wet weather (storm flow) monitoring	8

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	Moderate Priority
Groundwater	High Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	High Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Friday, November 30, 2018 8:28:02 AM Last Modified: Friday, November 30, 2018 8:30:29 AM

Time Spent: 00:02:26 **IP Address:** 71.226.224.19

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Namsoo Suk

Organization Delaware River Basin Commission

Email Address namsoo.suk@drbc.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Modeling,

Water quality,

Water quantity

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Respondent skipped this question

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Friday, November 30, 2018 8:25:36 AM **Last Modified:** Friday, November 30, 2018 8:45:42 AM

Time Spent: 00:20:06 **IP Address:** 167.21.41.14

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Erin Dorset
Organization DNREC

Email Address erin.dorset@state.de.us

Q2 Select your area(s) of expertise (please select all that apply)

Brackish or marine resources and

organisms

Coastal ecology/function,

Ecosystem services,

Tidal/nontidal wetlands

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority
Invasive species High Priority

Marine mammals and sea turtles Moderate Priority

Population-level monitoring High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	2
Cumulative Impacts	1
Dredging data	6
Forest health	4
Sediment stratification	7
Submerged habitat	5
Transition zone monitoring	3

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Moderate Priority

Forest health

High Priority

High Priority

Moderate Priority

Sediment stratification

Moderate Priority

High Priority

High Priority

High Priority

High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	1
Fish tissue analysis for bioaccumulating compounds	3
Microplastics	5
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	4
Pharmaceuticals	6
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	2

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	High Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	1
Fish tissue analysis	3
Flow measurements	4
Groundwater	5
Nuisance algal blooms	6
Pharmaceuticals	7
Temperature at short intervals	8
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Yes

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Friday, November 30, 2018 10:05:08 AM Last Modified: Friday, November 30, 2018 10:20:30 AM

 Time Spent:
 00:15:22

 IP Address:
 71.225.136.232

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Jim Fries

Organization Riverfront North Partnership

Email Address jim@riverfrontnorth.org

Q2 Select your area(s) of expertise (please select all that

apply)

Invasive species,

Tidal/nontidal

wetlands

Urban/regional planning or land use

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority
Invasive species High Priority

Marine mammals and sea turtles

Moderate Priority

Population-level monitoring

Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Non-marine mammals that utilize riparian areas

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

City of Philadelphia Delaware River waterfront

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	3
Cumulative Impacts	1
Dredging data	7
Forest health	2
Sediment stratification	5
Submerged habitat	4
Transition zone monitoring	6

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data Moderate Priority
Cumulative impacts High Priority
Dredging data Moderate Priority
Forest health High Priority
Sediment stratification Moderate Priority
Submerged habitat High Priority
Transition zone monitoring Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Delaware River waterfront Philadelphia

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	3
Microplastics	5
Monitoring conducted on the center channel replicated for the banks and at additional depths	1
PCBs	6
Pharmaceuticals	7
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	2

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Moderate Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Delaware River shoreline in Philadelphia

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

8
7
1
2
3
4
5
6

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis	Moderate Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	High Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Poquessing Creek, Tacony/Frankford Creek, Pennypack Creek, Buried creeks in Philadelphia

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Yes

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Youth Volunteer Corps

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Uncertain

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Friday, November 30, 2018 10:58:43 AM Last Modified: Friday, November 30, 2018 11:18:06 AM

Time Spent: 00:19:22 **IP Address:** 128.175.90.60

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Thomas E. McKenna
Organization University of Delaware
Email Address mckennat@udel.edu

Q2 Select your area(s) of expertise (please select all that apply)

Freshwater resources and

organisms

Sediment or

soils

Tidal/nontidal

wetlands

Water quality,

Water quantity

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2
Invasive species 3
Marine mammals and sea turtles 4
Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

Moderate Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

no

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

subestuaries of Delaware Bay

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	5
Cumulative Impacts	4
Dredging data	3
Forest health	7
Sediment stratification	6
Submerged habitat	1
Transition zone monitoring	2

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

High Priority

Forest health

Moderate Priority

Sediment stratification

Moderate Priority

Submerged habitat

High Priority

High Priority

High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

no

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

subestuaries of Delaware Bay

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	5
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	4
Monitoring conducted on the center channel replicated for the banks and at additional depths	1
PCBs	6
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	7

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Low Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Low Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

no

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

subestuaries of Delaware Bay

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	6
Fish tissue analysis	3
Flow measurements	7
Groundwater	1
Nuisance algal blooms	8
Pharmaceuticals	5
Temperature at short intervals	2
Wet weather (storm flow) monitoring	4

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors

Fish tissue analysis

Flow measurements

Low Priority

Low Priority

Groundwater High Priority

Nuisance algal blooms Low Priority

Pharmaceuticals Moderate Priority

Temperature at short intervals High Priority

Wet weather (storm flow) monitoring Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

no

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

subestuaries of Delaware Bay

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Delaware Nature Society; Nature Conservancy

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Uncertain

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

uncertain that EPA/DNREC funds will be available over ten years for our long-term groundwater-level monitoring planbut the Delaware Water Supply Coordinating Council has been very helpful in making our case of importance. Our streamflow discharge and tide gage cooperative program with USGS and others has been stable recently but through the years there have been budget cuts that created holes in long-term data sets. Our earthquake monitoring program funding is stable but need to create partnership with other entities beyond DEMA. Anticipate work with UD CEMA and DEOS (meterological stations, coastal flood monitoring system to continue to be supported over next 10 yrs.

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Friday, November 30, 2018 2:17:39 PM **Last Modified:** Friday, November 30, 2018 2:31:46 PM

Time Spent: 00:14:06 **IP Address:** 160.93.63.1

Page 2: Identifying Information

Q1 Please enter your contact information.

Name John Yagecic

Organization Delaware River Basin Commission

Email Address John.Yagecic@drbc.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Data management,

Modeling,

Water quality,

Water quantity

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2
Invasive species 1
Marine mammals and sea turtles 3
Population-level monitoring 4

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Moderate Priority

Invasive species Moderate Priority

Marine mammals and sea turtles Low Priority

Population-level monitoring Low Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

N/A

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

N/A

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6
Cumulative Impacts	4
Dredging data	2
Forest health	3
Sediment stratification	7
Submerged habitat	1
Transition zone monitoring	5

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data Low Priority

Cumulative impacts Moderate Priority
Dredging data Moderate Priority
Forest health Moderate Priority

Submerged habitat Moderate Priority

Transition zone monitoring Low Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Low Priority

N/A

Sediment stratification

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

N/A

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-vet robust monitoring parameters.

Endocrine disruptors 2

Microplastics 3

Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins 1

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors

Moderate Priority

Microplastics

Moderate Priority

Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins

High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Yes

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

William Penn Cluster groups

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Uncertain

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Friday, November 30, 2018 5:08:07 PM **Last Modified:** Friday, November 30, 2018 5:28:22 PM

Time Spent: 00:20:15 **IP Address:** 68.83.107.234

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Kuo-Liang Lai
Organization EPA Region 3

Email Address lai.kuo-liang@epa.gov

Q2 Select your area(s) of expertise (please select all that apply)

Beaches,

Citizen science,

Coastal ecology/function,

Data management,

Ecosystem services,

Freshwater resources and

organisms

Modeling,

Policy and/or funding,

Sediment or ,

soils

Shellfish and benthic

resources

Urban/regional planning or land use,

Water quality,

Water quantity

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves	1
Invasive species	4
Marine mammals and sea turtles	3
Population-level monitoring	2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

Low Priority

Marine mammals and sea turtles

Moderate Priority

Population-level monitoring

Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6
Cumulative Impacts	1
Dredging data	2
Forest health	7
Sediment stratification	4
Submerged habitat	3
Transition zone monitoring	5

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data	Moderate Priority
Cumulative impacts	High Priority
Dredging data	High Priority
Forest health	Low Priority
Sediment stratification	High Priority
Submerged habitat	High Priority
Transition zone monitoring	Moderate Priority
Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit	Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	3
Microplastics	7
Monitoring conducted on the center channel replicated for the banks and at additional depths	2
PCBs	6
Pharmaceuticals	5
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	1

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Low Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Moderate Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	7
Fish tissue analysis	6
Flow measurements	1
Groundwater	4
Nuisance algal blooms	5
Pharmaceuticals	8
Temperature at short intervals	3
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Low Priority
Fish tissue analysis	Moderate Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	Low Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	High Priority
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding	N
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 03, 2018 8:52:37 AM Last Modified: Monday, December 03, 2018 9:13:54 AM

Time Spent: 00:21:17 **IP Address:** 164.159.59.2

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Gregory Breese

Organization US Fish and Wildlife Service

Email Address gregory_breese@fws.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Beaches,

Brackish or marine resources and

organisms

Citizen science,

Coastal ecology/function,

Forests,

Freshwater resources and

organisms

Invasive species,

Non-aquatic wildlife,

Shellfish and benthic

resources

Tidal/nontidal

wetlands

Urban/regional planning or land use

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 2
Marine mammals and sea turtles 4
Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

High Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Yes

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Yes

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	7
Cumulative Impacts	1
Dredging data	6
Forest health	2
Sediment stratification	5
Submerged habitat	3
Transition zone monitoring	4

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Moderate Priority

Forest health

High Priority

Sediment stratification

Low Priority

Submerged habitat

High Priority

Low Priority

Low Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Yes

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Yes

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	5
Microplastics	2
Monitoring conducted on the center channel replicated for the banks and at additional depths	3
PCBs	6
Pharmaceuticals	1
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	7

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors

Fish tissue analysis for bioaccumulating compounds

Microplastics

Moderate Priority

Monitoring conducted on the center channel replicated for the banks and at additional depths

PCBs

Moderate Priority

Moderate Priority

High Priority

High Priority

High Priority

Moderate Priority

Pharmaceuticals

High Priority

Moderate Priority

Moderate Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Yes

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Yes

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	6
Fish tissue analysis	5
Flow measurements	1
Groundwater	4
Nuisance algal blooms	7
Pharmaceuticals	3
Temperature at short intervals	8
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors Moderate Priority
Fish tissue analysis Moderate Priority

Flow measurements High Priority

Groundwater High Priority

Nuisance algal blooms Moderate Priority

Pharmaceuticals

Temperature at short intervals

High Priority

Low Priority

Wet weather (storm flow) monitoring High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Yes

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Yes

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Horseshoe Crab Bay-wide Monitoring

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Uncertain

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 03, 2018 10:21:42 AM **Last Modified:** Monday, December 03, 2018 10:23:40 AM

Time Spent: 00:01:58 IP Address: 8.20.65.4

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Nicholas Lylo

PA DCNR Bureau of Forestry Organization

Email Address nlylo@pa.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

3 Freshwater bivalves Invasive species 1 Marine mammals and sea turtles 2 4 Population-level monitoring

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves **Low Priority** Invasive species **High Priority**

Marine mammals and sea turtles **Moderate Priority**

Population-level monitoring **Low Priority** **Q5** Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Q12 Here is a list of Delaware River and Bay monitoring Respondent skipped this question parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q13** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future? **Q14** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future? Page 6: Workshop Results: Water Monitoring - Tributaries **Q15** Here is a list of tributary monitoring parameters Respondent skipped this question identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs. **Q16** Here is a list of tributary monitoring parameters that Respondent skipped this question were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q17** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Page 7: Additional Monitoring Programs and Funding

Q18 Based on a review of the draft monitoring inventory

and your knowledge of other existing programs, are there any geographies that you believe would benefit

from more robust monitoring efforts for tributary monitoring parameters in the future?

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 03, 2018 1:27:47 PM Last Modified: Monday, December 03, 2018 1:31:44 PM

Time Spent: 00:03:56 **IP Address:** 75.97.126.106

Page 2: Identifying Information

Q1 Please enter your contact information.

Name ryan neuman

Organization Tookany Tacony Frankford Watershed Partnership

Email Address ryan@ttfwatershed.org

Q2 Select your area(s) of expertise (please select all that **Water quality** apply)

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop	Results: Water	Monitoring -	Tributaries
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Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Respondent skipped this question

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 03, 2018 2:13:28 PM Last Modified: Monday, December 03, 2018 2:28:05 PM

Time Spent: 00:14:36 **IP Address:** 128.175.126.111

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Anastasia E. M. Chirnside

Organization University of DE
Email Address aemc@udel.edu

Q2 Select your area(s) of expertise (please select all that apply)

Ecosystem services,

Sediment or

soils

Tidal/nontidal

wetlands

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1
Invasive species 3
Marine mammals and sea turtles 4
Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority

Invasive species

Moderate Priority

Marine mammals and sea turtles

Moderate Priority

Population-level monitoring

Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Cumulative Impacts1Dredging data3Forest health6Sediment stratification7Submerged habitat4Transition zone monitoring2	Buffer data	5
Forest health 6 Sediment stratification 7 Submerged habitat 4	Cumulative Impacts	1
Sediment stratification 7 Submerged habitat 4	Dredging data	3
Submerged habitat 4	Forest health	6
	Sediment stratification	7
Transition zone monitoring 2	Submerged habitat	4
	Transition zone monitoring	2

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data Moderate Priority
Cumulative impacts High Priority
Dredging data High Priority
Forest health Moderate Priority
Sediment stratification Low Priority
Submerged habitat Moderate Priority
Transition zone monitoring Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	6
Microplastics	2
Monitoring conducted on the center channel replicated for the banks and at additional depths	1
PCBs	7
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	Low Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Low Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	7
Fish tissue analysis	8
Flow measurements	2
Groundwater	3
Nuisance algal blooms	4
Pharmaceuticals	5
Temperature at short intervals	6
Wet weather (storm flow) monitoring	1

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis	Moderate Priority
Flow measurements	High Priority
Groundwater	Moderate Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	High Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 03, 2018 3:53:47 PM Last Modified: Monday, December 03, 2018 4:02:56 PM

Time Spent: 00:09:09 **IP Address:** 167.21.41.14

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Alison Rogerson

Organization **DNREC**

Email Address alison.rogerson@state.de.us

Q2 Select your area(s) of expertise (please select all that

apply)

Tidal/nontidal wetlands

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2

Invasive species 1

Marine mammals and sea turtles 4

Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority

Invasive species High Priority

Marine mammals and sea turtles Low Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6
Cumulative Impacts	1
Dredging data	3
Forest health	5
Sediment stratification	7
Submerged habitat	4
Transition zone monitoring	2

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Moderate Priority

Forest health

Moderate Priority

Sediment stratification Low Priority

Submerged habitat Moderate Priority

Transition zone monitoring High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	3
Fish tissue analysis for bioaccumulating compounds	4
Microplastics	1
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	5
Pharmaceuticals	2
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	6

Endocrine disruptors

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

High Priority

Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	Moderate Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Respondent skipped this question

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Uncertain

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

\$

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 03, 2018 3:58:25 PM Last Modified: Monday, December 03, 2018 4:09:13 PM

Time Spent: 00:10:47 **IP Address:** 96.93.49.4

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Lisa Ferguson

Organization The Wetlands Institute

Email Address Iferguson@wetlandsinstitute.org

Q2 Select your area(s) of expertise (please select all that

apply)

Beaches,

Brackish or marine resources and

organisms

Citizen science,

Coastal ecology/function,

Community engagement,

Non-aquatic wildlife,

Tidal/nontidal

wetlands

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1

Invasive species 2

Marine mammals and sea turtles 4

Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves **High Priority** Invasive species **High Priority Moderate Priority** Marine mammals and sea turtles Population-level monitoring **Moderate Priority Q5** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future? **Q6** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future? Page 4: Workshop Results: Plants and Habitat **Q7** Here is a list of plant and habitat parameters Respondent skipped this question identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs. **Q8** Here is a list of plant and habitat parameters that Respondent skipped this question were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q9** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future? **Q10** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Wednesday, December 05, 2018 2:56:41 PM **Last Modified:** Wednesday, December 05, 2018 3:10:51 PM

Time Spent: 00:14:09

IP Address: 153.104.209.214

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Nathaniel Weston

Organization Villanova University

Email Address nathaniel.weston@villanova.edu

Q2 Select your area(s) of expertise (please select all that

apply)

Coastal ecology/function,

Ecosystem services,

Sediment or

soils

Tidal/nontidal .

wetlands

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3

Invasive species 2

Marine mammals and sea turtles 4

Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves	Moderate Priority
Invasive species	Moderate Priority
Marine mammals and sea turtles	Low Priority
Population-level monitoring	High Priority
Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit	Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

resources in the future?

from more robust monitoring efforts for non-plant living

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6	
Cumulative Impacts	1	
Dredging data	5	
Forest health	2	
Sediment stratification	7	
Submerged habitat	3	
Transition zone monitoring	4	

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data	Moderate Priority
Cumulative impacts	High Priority
Dredging data	Moderate Priority
Forest health	Moderate Priority
Sediment stratification	Low Priority
Submerged habitat	Moderate Priority
Transition zone monitoring	Moderate Priority
Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are	Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

there any geographies that you believe would benefit from more robust monitoring efforts for plant and

habitat parameters in the future?

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	3
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	4
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	5
Pharmaceuticals	1
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	6

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	Moderate Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	5
Fish tissue analysis	4
Flow measurements	6
Groundwater	3
Nuisance algal blooms	7
Pharmaceuticals	2
Temperature at short intervals	8
Wet weather (storm flow) monitoring	1

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

5 p 3 y	
Endocrine disruptors	Moderate Priority
Fish tissue analysis	Moderate Priority
Flow measurements	Moderate Priority
Groundwater	Moderate Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	High Priority
Temperature at short intervals	Low Priority
Wet weather (storm flow) monitoring	High Priority
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding	
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started:Wednesday, December 05, 2018 3:54:18 PMLast Modified:Wednesday, December 05, 2018 4:18:20 PM

Time Spent: 00:24:01 **IP Address:** 72.44.165.18

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Kaitie Sniffen

Organization Seaport Museum

Email Address ksniffen@phillyseaport.org

Q2 Select your area(s) of expertise (please select all that

apply)

Citizen science,

Community engagement,

Ecosystem services,

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority

Invasive species High Priority

Marine mammals and sea turtles Moderate Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

hard to say without knowing exactly whats covered now

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6
Cumulative Impacts	1
Dredging data	4
Forest health	3
Sediment stratification	5
Submerged habitat	2
Transition zone monitoring	7

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Moderate Priority

Forest health

Moderate Priority

Sediment stratification

Moderate Priority

Submerged habitat

Moderate Priority

Low Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	3
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	1
Monitoring conducted on the center channel replicated for the banks and at additional depths	6
PCBs	7
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

High Priority

Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Endocrine disruptors

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	3
Fish tissue analysis	2
Flow measurements	4
Groundwater	5
Nuisance algal blooms	8
Pharmaceuticals	6
Temperature at short intervals	7
Wet weather (storm flow) monitoring	1

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	Low Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Low Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 7:52:07 AM Last Modified: Monday, December 10, 2018 8:09:34 AM

Time Spent: 00:17:27 **IP Address:** 12.200.34.76

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Barnett Rattner
Organization USGS, DOI

Email Address brattner@usgs.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Other (please specify):

wildlife ecotoxicology

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 4
Invasive species 3
Marine mammals and sea turtles 1
Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Moderate Priority

Invasive species High Priority

Marine mammals and sea turtles High Priority

Population-level monitoring High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

None

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

waterbirds

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	5
Cumulative Impacts	4
Dredging data	3
Forest health	2
Sediment stratification	6
Submerged habitat	1
Transition zone monitoring	7

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

Moderate Priority

Dredging data

Moderate Priority

Forest health

High Priority

Sediment stratification

Moderate Priority

Moderate Priority

High Priority

High Priority

Moderate Priority

Transition zone monitoring

Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

None

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

None

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	3
Fish tissue analysis for bioaccumulating compounds	5
Microplastics	6
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	4
Pharmaceuticals	1
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	2

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

None

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

None

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	2
Fish tissue analysis	3
Flow measurements	6
Groundwater	5
Nuisance algal blooms	4
Pharmaceuticals	1
Temperature at short intervals	8
Wet weather (storm flow) monitoring	7

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors **High Priority** Fish tissue analysis **High Priority** Flow measurements **Moderate Priority** Groundwater **Moderate Priority** Nuisance algal blooms **High Priority Pharmaceuticals High Priority** Temperature at short intervals **Moderate Priority** Wet weather (storm flow) monitoring **Moderate Priority**

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

None

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

None

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Yes

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Respondent skipped this question

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

No

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

\$150,000 per sampling year

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 12:38:03 PM Last Modified: Monday, December 10, 2018 12:45:13 PM

Time Spent: 00:07:10 **IP Address:** 160.93.0.202

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Cari Wild

Organization NJ Natural Lands Trust
Email Address cari.wild@dep.nj.gov

Q2 Select your area(s) of expertise (please select all that apply)

Policy and/or funding,

Other (please specify):

conservation of habitat for threatened and endangered

species

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

High Priority

Marine mammals and sea turtles

High Priority

High Priority

High Priority

High Priority

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	7
Cumulative Impacts	1
Dredging data	5
Forest health	6
Sediment stratification	4
Submerged habitat	3
Transition zone monitoring	2

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Moderate Priority

Forest health

Low Priority

Sediment stratification

High Priority

Submerged habitat High Priority

Transition zone monitoring High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	2
Fish tissue analysis for bioaccumulating compounds	4
Microplastics	1
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	6
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Endocrine disruptors

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

High Priority

Endocrine disruptors	riigiri riority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	Moderate Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	1
Fish tissue analysis	2
Flow measurements	8
Groundwater	5
Nuisance algal blooms	4
Pharmaceuticals	3
Temperature at short intervals	7
Wet weather (storm flow) monitoring	6

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	Moderate Priority
Groundwater	Moderate Priority
Nuisance algal blooms	High Priority
Pharmaceuticals	High Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 12:54:57 PM Last Modified: Monday, December 10, 2018 1:00:08 PM

Time Spent: 00:05:11 **IP Address:** 160.93.0.208

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Biswarup Guha

Organization NJDEP

Email Address biswarup.guha@dep.nj.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Beaches,

Data management,

Freshwater resources and

organisms

Modeling,

Policy and/or funding,

Shellfish and benthic

resources

Water quality,

Other (please

specify):

Surface Water Quality Standards

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Q12 Here is a list of Delaware River and Bay monitoring Respondent skipped this question parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q13** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future? **Q14** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future? Page 6: Workshop Results: Water Monitoring - Tributaries **Q15** Here is a list of tributary monitoring parameters Respondent skipped this question identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs. **Q16** Here is a list of tributary monitoring parameters that Respondent skipped this question were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority. a moderate priority, or a high priority. **Q17** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any tributary monitoring parameters that you

Page 7: Additional Monitoring Programs and Funding

believe are not indicated above that should be elevated

Q18 Based on a review of the draft monitoring inventory

and your knowledge of other existing programs, are there any geographies that you believe would benefit

from more robust monitoring efforts for tributary monitoring parameters in the future?

for monitoring in the future?

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 1:13:32 PM Last Modified: Monday, December 10, 2018 1:46:42 PM

Time Spent: 00:33:10 **IP Address:** 204.46.140.104

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Kathleen Foley
Organization USEPA Region 2

Email Address savino.kathleen@epa.gov

Q2 Select your area(s) of expertise (please select all that apply)

Community engagement,

Water quality,

Other (please specify):
Data Quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1
Invasive species 3
Marine mammals and sea turtles 4
Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority

Invasive species Moderate Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	4
Cumulative Impacts	7
Dredging data	2
Forest health	5
Sediment stratification	6
Submerged habitat	1
Transition zone monitoring	3

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

Low Priority

Dredging data

Moderate Priority

Forest health

Moderate Priority

Sediment stratification

Low Priority

Submerged habitat High Priority

Transition zone monitoring High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	2
Fish tissue analysis for bioaccumulating compounds	3
Microplastics	7
Monitoring conducted on the center channel replicated for the banks and at additional depths	5
PCBs	6
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	1

should be elevated for monitoring in the future?

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	Low Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	Low Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that	Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	4
Fish tissue analysis	7
Flow measurements	3
Groundwater	5
Nuisance algal blooms	1
Pharmaceuticals	6
Temperature at short intervals	8
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	Moderate Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	High Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Yes

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 2:39:33 PM Last Modified: Monday, December 10, 2018 2:49:11 PM

Time Spent: 00:09:37 **IP Address:** 129.25.251.100

Page 2: Identifying Information

Q1 Please enter your contact information.

Name David Velinsky

Organization Academy of Natural Sciences of Drexel University

Email Address djv23@drexel.edu

Q2 Select your area(s) of expertise (please select all that

apply)

Coastal ecology/function,

Ecosystem services,

Sediment or

soils

Tidal/nontidal .

wetlands

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

High Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

tidal freshwater areas

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6
Cumulative Impacts	2
Dredging data	1
Forest health	5
Sediment stratification	7
Submerged habitat	4
Transition zone monitoring	3

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

Moderate Priority

Dredging data

High Priority

Forest health

Moderate Priority

Sediment stratification

Low Priority

Submerged habitat

Transition zone monitoring

Moderate Priority

Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

tidal Freshwater areas

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	3
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	1
Monitoring conducted on the center channel replicated for the banks and at additional depths	5
PCBs	7
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	6

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	Moderate Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q14 Based on a review of the draft monitoring inventory	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River

and Bay monitoring parameters in the future?

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	4
Fish tissue analysis	5
Flow measurements	3
Groundwater	1
Nuisance algal blooms	7
Pharmaceuticals	6
Temperature at short intervals	8
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors Moderate Priority Fish tissue analysis **Moderate Priority** Flow measurements **High Priority** Groundwater **High Priority** Nuisance algal blooms **Moderate Priority Pharmaceuticals Moderate Priority** Temperature at short intervals **Moderate Priority** Wet weather (storm flow) monitoring **High Priority** Q17 Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future? Q18 Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future? Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could No be included in the Delaware Estuary monitoring assessment? Q20 If you answered "yes" for Question 19, what is/are Respondent skipped this question the name(s) of the volunteer organization(s)? **Q21** Does your organization anticipate having sufficient Uncertain funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary? Q22 If you answered "no" for Question 21, what level of funding is needed for which program? approimately \$100k per year

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 2:41:18 PM Last Modified: Monday, December 10, 2018 2:56:49 PM

Time Spent: 00:15:30 **IP Address:** 50.199.86.61

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Meghan Rogalus

Organization Bucks County Conservation District

Email Address mrogalus@bucksccd.org

Q2 Select your area(s) of expertise (please select all that

apply)

Citizen science,

Data management,

Freshwater resources and

organisms

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 1
Marine mammals and sea turtles 2
Population-level monitoring 4

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Moderate Priority
Invasive species High Priority

Marine mammals and sea turtles

Moderate Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Areas outside of DRWI clusters, e.g., Tohickon Creek, Neshaminy Creek and other Delaware direct basins

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Cumulative Impacts2Dredging data7Forest health4Sediment stratification6Submerged habitat5Transition zone monitoring1	Buffer data	3
Forest health 4 Sediment stratification 6 Submerged habitat 5	Cumulative Impacts	2
Sediment stratification 6 Submerged habitat 5	Dredging data	7
Submerged habitat 5	Forest health	4
	Sediment stratification	6
Transition zone monitoring 1	Submerged habitat	5
	Transition zone monitoring	1

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

High Priority

Cumulative impacts

High Priority

Dredging data

Low Priority

Forest health

Moderate Priority

Sediment stratification

Low Priority

Sediment stratification Low Friency

Submerged habitat Moderate Priority

Transition zone monitoring High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	1
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	6
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	4
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Endocrine disruptors

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

High Priority

Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	Moderate Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	3
Fish tissue analysis	4
Flow measurements	2
Groundwater	5
Nuisance algal blooms	8
Pharmaceuticals	6
Temperature at short intervals	7
Wet weather (storm flow) monitoring	1

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	High Priority
Groundwater	Moderate Priority
Nuisance algal blooms	Low Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Low Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Yes

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Primrose Creek Watershed Association, Aquetong Watershed Association, Cooks Creek Watershed Association, Carversville Farm Foundation (in Paunacussing Creek watershed)

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Uncertain

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 3:23:12 PM **Last Modified:** Monday, December 10, 2018 3:24:10 PM

Time Spent: 00:00:58 **IP Address:** 69.242.37.154

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Ryan Neuman

Organization Tookany/Tacony-Frankford Watershed Partnership

Email Address ryan@ttfwatershed.org

Q2 Select your area(s) of expertise (please select all that

apply)

Citizen science.

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Respondent skipped this question

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 3:19:33 PM Last Modified: Monday, December 10, 2018 3:31:12 PM

Time Spent: 00:11:38 **IP Address:** 164.159.59.2

Page 2: Identifying Information

Q1 Please enter your contact information.

Name steve mars

Organization USFWS - NJFO

Email Address steve_mars@fws.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Beaches,

Brackish or marine resources and

organisms

Coastal ecology/function,

Ecosystem services,

Fish,

Policy and/or funding,

Other (please specify):

horseshoe crabs, red knots, habitat restoration

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves	1
Invasive species	4
Marine mammals and sea turtles	3
Population-level monitoring	2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

Marine mammals and sea turtles

Low Priority

Low Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

horseshoe crabs

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

HSC spawning and red knot foraging beaches

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	4
Cumulative Impacts	3
Dredging data	1
Forest health	7
Sediment stratification	2
Submerged habitat	6
Transition zone monitoring	5

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

Dredging data

Forest health

Low Priority

Low Priority

Low Priority

Sediment stratification Moderate Priority
Submerged habitat Moderate Priority

Transition zone monitoring Low Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

tidal wetlands and sea level rise - what will be lost based on current sea level rise predictions

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

sedinment loading for tidal wetlands - will it be enough given sea level rise predictions

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	6
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	5
Pharmaceuticals	1
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	3

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors **Moderate Priority** Fish tissue analysis for bioaccumulating compounds **Moderate Priority** Microplastics **Low Priority**

Monitoring conducted on the center channel replicated for the banks and at additional depths

Low Priority

PCBs Moderate Priority Pharmaceuticals Moderate Priority Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins **Moderate Priority**

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

synergystic effects on fish eating birds when multiple compounds are found in fish

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

TMDLs for the Philadelphia Trenton area of the DE river

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Yes

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Wetlands institute, Maurice River and Tributaries Friends Group, Bayshre Recovery Project

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

No

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Studying the effects on the aquatic environment including changing habitats due to sea level rise

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 3:30:14 PM **Last Modified:** Monday, December 10, 2018 3:50:22 PM

Time Spent: 00:20:08 **IP Address:** 8.20.65.4

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Gregory Lech

Organization PA Fish and Boat Commission

Email Address glech@pa.gov

Q2 Select your area(s) of expertise (please select all that **Fish** apply)

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1
Invasive species 2
Marine mammals and sea turtles 4
Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

High Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	
Cumulative Impacts	2
Dredging data	5
Forest health	1
Sediment stratification	6
Submerged habitat	7
Transition zone monitoring	3

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data	Low Priority
Cumulative impacts	High Priority
Dredging data	Low Priority
Forest health	High Priority
Sediment stratification	Low Priority
Submerged habitat	Low Priority
Transition zone monitoring	High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	2
Fish tissue analysis for bioaccumulating compounds	7
Microplastics	4
Monitoring conducted on the center channel replicated for the banks and at additional depths	1
PCBs	6
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Endocrine disruptors

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

High Priority

Fish tissue analysis for bioaccumulating compounds	Low Priority
Microplastics	Low Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Low Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Low Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	4
Fish tissue analysis	5
Flow measurements	1
Groundwater	3
Nuisance algal blooms	8
Pharmaceuticals	7
Temperature at short intervals	6
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Low Priority
Fish tissue analysis	Low Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	Low Priority
Pharmaceuticals	Low Priority
Temperature at short intervals	Low Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 3:27:33 PM **Last Modified:** Monday, December 10, 2018 4:47:38 PM

Time Spent: 01:20:05 **IP Address:** 200.178.116.82

Page 2: Identifying Information

Q1 Please enter your contact information.

Name David Mizrahi

Organization NJ Audubon

Email Address david.mizrahi@njaudubon.org

Q2 Select your area(s) of expertise (please select all that apply)

Coastal ecology/function,

Tidal/nontidal wetlands

Other (please specify):
Avian ecology

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Respondent skipped this question

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 5:04:24 PM Last Modified: Monday, December 10, 2018 5:06:29 PM

Time Spent: 00:02:04 **IP Address:** 76.117.59.88

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Dianne Daly
Organization Consultant

Email Address power45@comcast.net

Q2 Select your area(s) of expertise (please select all that apply)

Beaches,

Citizen science,

Coastal ecology/function,

Ecosystem services,

Other (please specify):

Coastal restoration

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Q21 Does your organization anticipate having sufficient
funding over the next ten years to carry out existing
monitoring programs within the Delaware Estuary?

Respondent skipped this question

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 10, 2018 7:38:13 PM Last Modified: Monday, December 10, 2018 8:03:20 PM

Time Spent: 00:25:06 **IP Address:** 100.34.201.158

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Lindsay Blanton

Organization Wissahickon Valley Watershed Association

Email Address lindsay@wvwa.org

Q2 Select your area(s) of expertise (please select all that

apply)

Citizen science,

Community engagement,

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1
Invasive species 2
Marine mammals and sea turtles 4

Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Moderate Priority

Invasive species Moderate Priority

Marine mammals and sea turtles Low Priority

Population-level monitoring Low Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

No

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Suburban Philadelphia has strong citizen science programs but no set monitoring protocols for bivalves or invasive species.

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	1
Cumulative Impacts	3
Dredging data	7
Forest health	2
Sediment stratification	4
Submerged habitat	5
Transition zone monitoring	6

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data High Priority

Cumulative impacts Moderate Priority

Dredging data Low Priority

Forest health Moderate Priority

Sediment stratification Moderate Priority

Submerged habitat Low Priority

Transition zone monitoring Low Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

No

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

suburbia could have a much better understanding of buffer and forest health/status

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	5
Fish tissue analysis for bioaccumulating compounds	3
Microplastics	2
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	1
Pharmaceuticals	6
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	4

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Moderate Priority

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	Moderate Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

No

Endocrino dicruptore

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Unsure. Recently heard about the ubiquity of microplastics in our water - would be curious to see what waterways they're found in.

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	8
Fish tissue analysis	6
Flow measurements	5
Groundwater	4
Nuisance algal blooms	2
Pharmaceuticals	7
Temperature at short intervals	3
Wet weather (storm flow) monitoring	1

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors **Low Priority** Fish tissue analysis **Low Priority** Flow measurements **Moderate Priority** Groundwater **Moderate Priority** Nuisance algal blooms **Moderate Priority Pharmaceuticals Low Priority** Temperature at short intervals **Moderate Priority** Wet weather (storm flow) monitoring **High Priority**

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

No

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Everywhere!

Page 7: Additional Monitoring Programs and Funding	
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Yes
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 8:23:10 AM Last Modified: Tuesday, December 11, 2018 8:41:47 AM

Time Spent: 00:18:37 **IP Address:** 129.25.250.85

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Roger Thomas

Organization The Academy of Natural Sciences

Email Address thomas@ansp.org

Q2 Select your area(s) of expertise (please select all that

apply)

Citizen science,

Community engagement,

Ecosystem services,

Fish,

Shellfish and benthic

resources

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1

Invasive species 3

Marine mammals and sea turtles 4

Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

Moderate Priority

Marine mammals and sea turtles

Moderate Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

freshwater tidal wetlands

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	2
Cumulative Impacts	3
Dredging data	7
Forest health	6
Sediment stratification	5
Submerged habitat	4
Transition zone monitoring	1

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data High Priority
Cumulative impacts High Priority
Dredging data Low Priority
Forest health Low Priority

Sediment stratification Moderate Priority
Submerged habitat Moderate Priority
Transition zone monitoring High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

subwatershed land use, elevation

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	2
Fish tissue analysis for bioaccumulating compounds	1
Microplastics	6
Monitoring conducted on the center channel replicated for the banks and at additional depths	5
PCBs	3
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	7

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Low Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	Moderate Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Low Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	3
Fish tissue analysis	1
Flow measurements	2
Groundwater	7
Nuisance algal blooms	8
Pharmaceuticals	4
Temperature at short intervals	6
Wet weather (storm flow) monitoring	5

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors

High Priority
Fish tissue analysis

High Priority
Flow measurements

High Priority

High Priority

Low Priority

Nuisance algal blooms

Low Priority

Pharmaceuticals

High Priority

Temperature at short intervals

Moderate Priority

Wet weather (storm flow) monitoring

Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

riparian habitat, watershed land use

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Respondent skipped this question

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Respondent skipped this question

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

No

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

20k/year

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 8:36:23 AM Last Modified: Tuesday, December 11, 2018 8:51:02 AM

Time Spent: 00:14:39 **IP Address:** 137.161.255.59

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Barbara Conlin

Organization US Army Corps of Engineers

Email Address Barbara.E.Conlin@usace.army.mil

Q2 Select your area(s) of expertise (please select all that

apply)

Beaches,

Brackish or marine resources and

organisms

Coastal ecology/function,

Policy and/or funding,

Tidal/nontidal wetlands

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2

Marine mammals and sea turtles 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority

Invasive species Moderate Priority

Marine mammals and sea turtles High Priority

Population-level monitoring High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

horseshoe crabs, tubeworms, recreational fisheries

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Delaware Bay

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Cumulative Impacts

1

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Cumulative impacts High Priority

Dredging data High Priority

Forest health Moderate Priority

Submerged habitat High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

salt marshes

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Delaware Bay

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Endocrine disruptors

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Monitoring conducted on the center channel replicated for the banks and at additional depths

PCBs

2

Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins

1

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Moderate Priority

Fish tissue analysis for bioaccumulating compounds

High Priority

Microplastics

High Priority

Monitoring conducted on the center channel replicated for the banks and at additional depths

PCBs

Moderate Priority

Pharmaceuticals

High Priority

High Priority

High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Flow measurements 5

Pharmaceuticals 1

Temperature at short intervals 2

Wet weather (storm flow) monitoring 3

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis	High Priority
Flow measurements	Moderate Priority
Groundwater	Moderate Priority
Nuisance algal blooms	High Priority
Pharmaceuticals	High Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	Moderate Priority
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding	
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 9:04:05 AM Last Modified: Tuesday, December 11, 2018 9:44:18 AM

Time Spent: 00:40:13 **IP Address:** 161.80.1.9

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Bill Richardson
Organization EPA Region 3

Email Address richardson.william@epa.gov

Q2 Select your area(s) of expertise (please select all that apply)

Freshwater resources and

organisms

Policy and/or funding,

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2
Invasive species 3
Marine mammals and sea turtles 4
Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

Invasive species

Moderate Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Benthic macroinvertebrates for estuarine IBI development to assess aquatic life use

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

tidal Schuylkill River

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	5
Cumulative Impacts	1
Dredging data	7
Forest health	6
Sediment stratification	2
Submerged habitat	3
Transition zone monitoring	4

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Low Priority

Forest health

Low Priority

Sediment stratification

Moderate Priority

Transition zone monitoring

Moderate Priority

Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

no

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

tidal Schuylkill

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	5
Fish tissue analysis for bioaccumulating compounds	3
Microplastics	7
Monitoring conducted on the center channel replicated for the banks and at additional depths	1
PCBs	4
Pharmaceuticals	6
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	2

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Low Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Low Priority
Monitoring conducted on the center channel replicated for the	High Priority
banks and at additional depths	

PCBs Moderate Priority
Pharmaceuticals Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated

for monitoring in the future?

no

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

tidal Schuylkill

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	7
Fish tissue analysis	3
Flow measurements	4
Groundwater	8
Nuisance algal blooms	1
Pharmaceuticals	6
Temperature at short intervals	5
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors **Low Priority** Fish tissue analysis **Moderate Priority** Flow measurements **Moderate Priority** Groundwater **Low Priority** Nuisance algal blooms **High Priority Pharmaceuticals Low Priority** Temperature at short intervals **Moderate Priority** Wet weather (storm flow) monitoring **High Priority**

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

biological community monitoring - macroinvertebrates and fish

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

no

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

No

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Respondent skipped this question

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Uncertain

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 9:45:59 AM
Last Modified: Tuesday, December 11, 2018 9:47:28 AM

Time Spent: 00:01:28 **IP Address:** 155.247.96.228

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Laura Toran

Organization Temple University
Email Address Itoran@temple.edu

Q2 Select your area(s) of expertise (please select all that apply)

Citizen science,

Data management,

Modeling,

Sediment or

soils

Urban/regional planning or land use,

Water quality,

Water quantity

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Q12 Here is a list of Delaware River and Bay monitoring Respondent skipped this question parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q13** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future? **Q14** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future? Page 6: Workshop Results: Water Monitoring - Tributaries **Q15** Here is a list of tributary monitoring parameters Respondent skipped this question identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs. **Q16** Here is a list of tributary monitoring parameters that Respondent skipped this question were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q17** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Page 7: Additional Monitoring Programs and Funding

Q18 Based on a review of the draft monitoring inventory

and your knowledge of other existing programs, are there any geographies that you believe would benefit

from more robust monitoring efforts for tributary monitoring parameters in the future?

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 9:51:31 AM Last Modified: Tuesday, December 11, 2018 9:57:32 AM

Time Spent: 00:06:01 **IP Address:** 72.44.165.18

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Mayci Shimon

Organization Independence Seaport Museum

Email Address mshimon@phillyseaport.org

Q2 Select your area(s) of expertise (please select all that

apply)

Citizen science,

Community engagement,

Freshwater resources and

organisms

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1

Marine mammals and sea turtles 4

Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority

Invasive species High Priority

Marine mammals and sea turtles Moderate Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	2
Cumulative Impacts	5
Dredging data	3
Forest health	1
Sediment stratification	7
Submerged habitat	4
Transition zone monitoring	6

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Moderate Priority
Cumulative impacts

High Priority

Profest health

Forest health

Sediment stratification

Low Priority

Submerged habitat

High Priority

High Priority

Moderate Priority

Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	6
Fish tissue analysis for bioaccumulating compounds	1
Microplastics	2
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	3
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	5
Fish tissue analysis	3
Flow measurements	7
Groundwater	2
Nuisance algal blooms	4
Pharmaceuticals	6
Temperature at short intervals	8
Wet weather (storm flow) monitoring	1

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	Moderate Priority
Groundwater	High Priority
Nuisance algal blooms	High Priority
Temperature at short intervals	Low Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Yes

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 9:49:59 AM
Last Modified: Tuesday, December 11, 2018 10:03:27 AM

Time Spent: 00:13:28 **IP Address:** 160.93.63.4

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Ron MacGillivray

Organization DRBC

Email Address ron.macgillivray@drbc.gov

Q2 Select your area(s) of expertise (please select all that **Water quality** apply)

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 2
Marine mammals and sea turtles 4
Population-level monitoring 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Low Priority

Invasive species Moderate Priority

Marine mammals and sea turtles

Low Priority

Population-level monitoring

High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Cumulative Impacts 1
Dredging data 2
Submerged habitat 3
Transition zone monitoring 4

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Cumulative impacts High Priority

Dredging data Moderate Priority
Submerged habitat Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	2
Fish tissue analysis for bioaccumulating compounds	1
Microplastics	3
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	6
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	5

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	Moderate Priority
Pharmaceuticals	Moderate Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

bacteria

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

urban

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	1
Fish tissue analysis	2
Flow measurements	5
Groundwater	8
Nuisance algal blooms	4
Pharmaceuticals	3
Temperature at short intervals	7
Wet weather (storm flow) monitoring	6

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	Moderate Priority
Groundwater	Low Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	High Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	Moderate Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Page 7: Additional Monitoring Programs and Funding

be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	No
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 10:21:55 AM Last Modified: Tuesday, December 11, 2018 10:46:26 AM

Time Spent: 00:24:30 **IP Address:** 69.253.237.20

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Kurt Philipp

Organization Wetlands Research Services

Email Address WetlandsResearchServices@gmail.com

Q2 Select your area(s) of expertise (please select all that

apply)

Coastal ecology/function,

Ecosystem services,

Invasive species,

Sediment or

soils

Tidal/nontidal wetlands

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1
Invasive species 2
Marine mammals and sea turtles 4
Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves	High Priority
Invasive species	Moderate Priority
Marine mammals and sea turtles	Moderate Priority
Population-level monitoring	Moderate Priority
Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	3	
Cumulative Impacts	1	
Dredging data	7	
Forest health	5	
Sediment stratification	4	
Submerged habitat	6	
Transition zone monitoring	2	

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data	Moderate Priority
Cumulative impacts	High Priority
Dredging data	Low Priority
Forest health	Moderate Priority
Sediment stratification	Moderate Priority
Submerged habitat	Moderate Priority
Transition zone monitoring	Moderate Priority
Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?	Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	1
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	5
Monitoring conducted on the center channel replicated for the banks and at additional depths	6
PCBs	7
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	4

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority	
Fish tissue analysis for bioaccumulating compounds	High Priority	
Microplastics	Moderate Priority	
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority	
PCBs	Moderate Priority	
Pharmaceuticals	High Priority	
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority	
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question	
Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River	Respondent skipped this question	

Page 6: Workshop Results: Water Monitoring - Tributaries

and Bay monitoring parameters in the future?

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	1
Fish tissue analysis	2
Flow measurements	3
Groundwater	6
Nuisance algal blooms	7
Pharmaceuticals	5
Temperature at short intervals	8
Wet weather (storm flow) monitoring	4

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis	High Priority
Flow measurements	High Priority
Groundwater	Moderate Priority
Nuisance algal blooms	Low Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Low Priority
Wet weather (storm flow) monitoring	High Priority
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding	
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	No
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 10:49:45 AM Last Modified: Tuesday, December 11, 2018 11:00:56 AM

Time Spent: 00:11:11 **IP Address:** 170.115.248.23

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Matthew Fritch

Organization Philadelphia Water Department

Email Address matthew.fritch@phila.gov

Q2 Select your area(s) of expertise (please select all that

apply)

Citizen science,

Community engagement,

Data management,

Freshwater resources and

organisms

Sediment or

soils

Water quality,

Water quantity

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves	2
Invasive species	4
Marine mammals and sea turtles	3
Population-level monitoring	1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves	High Priority
Invasive species	Moderate Priority
Marine mammals and sea turtles	Moderate Priority
Population-level monitoring	High Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	1
Cumulative Impacts	3
Dredging data	4
Forest health	2
Sediment stratification	6
Submerged habitat	5
Transition zone monitoring	7

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data High Priority
Cumulative impacts High Priority
Dredging data Moderate Priority
Forest health Moderate Priority
Sediment stratification Low Priority
Submerged habitat Low Priority
Transition zone monitoring Low Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	2
Microplastics	7
Monitoring conducted on the center channel replicated for the banks and at additional depths	1
PCBs	6
Pharmaceuticals	5
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	3

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	unds Moderate Priority
Microplastics	Low Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Low Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are	Respondent skipped this question
there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	8
Fish tissue analysis	5
Flow measurements	3
Groundwater	4
Nuisance algal blooms	6
Pharmaceuticals	7
Temperature at short intervals	2
Wet weather (storm flow) monitoring	1

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Low Priority
·	•
Fish tissue analysis	Moderate Priority
Flow measurements	Moderate Priority
Groundwater	Moderate Priority
Nuisance algal blooms	Low Priority
Pharmaceuticals	Low Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	High Priority
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding	
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Yes
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 03, 2018 10:44:58 AM Last Modified: Tuesday, December 11, 2018 11:13:49 AM

Time Spent: Over a week IP Address: 204.46.133.181

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Mike Mansolino
Organization US EPA Region 3

Email Address mansolino.michael@epa.gov

Q2 Select your area(s) of expertise (please select all that apply)

Coastal ecology/function,

Ecosystem services,

Forests,

Freshwater resources and

organisms

Invasive species,

Policy and/or funding,

Sediment or .

soils

Shellfish and benthic

resources

Tidal/nontidal

wetlands

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1

Invasive species 2

Marine mammals and sea turtles 3

Population-level monitoring

4

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves	High Priority
Invasive species	High Priority
Marine mammals and sea turtles	Moderate Priority
Population-level monitoring	Moderate Priority
Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living	Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

resources in the future?

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6	
Cumulative Impacts	5	
Dredging data	2	
Forest health	3	
Sediment stratification	4	
Submerged habitat	1	
Transition zone monitoring	7	

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Moderate Priority

Forest health

Moderate Priority

Submerged habitat

High Priority

High Priority

Moderate Priority

Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	7
Fish tissue analysis for bioaccumulating compounds	6
Microplastics	1
Monitoring conducted on the center channel replicated for the banks and at additional depths	5
PCBs	2
Pharmaceuticals	3
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	4

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

from more robust monitoring efforts for Delaware River

and Bay monitoring parameters in the future?

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	8
Fish tissue analysis	7
Flow measurements	4
Groundwater	1
Nuisance algal blooms	6
Pharmaceuticals	5
Temperature at short intervals	2
Wet weather (storm flow) monitoring	3

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis	Moderate Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	High Priority
Pharmaceuticals	High Priority
Temperature at short intervals	High Priority
Wet weather (storm flow) monitoring	High Priority
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding	
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Yes
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Monday, December 03, 2018 2:53:53 PM Last Modified: Tuesday, December 11, 2018 4:00:14 PM

Time Spent: Over a week IP Address: 129.25.250.108

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Kathryn Christopher

Organization Academy of Natural Sciences

Email Address kac388@drexel.edu

Q2 Select your area(s) of expertise (please select all that

apply)

Freshwater resources and

organisms

Water quality,

Other (please specify):

Science communication

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 2
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Moderate Priority

Invasive species High Priority

Marine mammals and sea turtles Low Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	6
Cumulative Impacts	1
Dredging data	7
Forest health	2
Sediment stratification	4
Submerged habitat	5
Transition zone monitoring	3

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

High Priority

Dredging data

Low Priority

Forest health

High Priority

Sediment stratification

Moderate Priority

Submerged habitat

Moderate Priority

Transition zone monitoring

Moderate Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	3
Fish tissue analysis for bioaccumulating compounds	5
Microplastics	4
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	1
Pharmaceuticals	2
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	6

Endocrine disruptors

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

High Priority

Lituocifile distuptors	riigii Friority
Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Low Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	6
Fish tissue analysis	5
Flow measurements	3
Groundwater	1
Nuisance algal blooms	7
Pharmaceuticals	4
Temperature at short intervals	8
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis	Moderate Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Uncertain

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 4:20:33 PM
Last Modified: Tuesday, December 11, 2018 4:26:25 PM

Time Spent: 00:05:52 **IP Address:** 96.235.132.2

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Kelly Rypkema

Organization Tulpehaking Nature Center

Email Address krypkema@mercercounty.org

Q2 Select your area(s) of expertise (please select all that **Community engagement** apply)

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves Moderate Priority

Invasive species High Priority

Marine mammals and sea turtles Low Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

We need to develop a bioassay for freshwater tidal systems in the Delaware River.

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

mid-Delaware, head of tide region

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Q12 Here is a list of Delaware River and Bay monitoring Respondent skipped this question parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q13** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future? **Q14** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future? Page 6: Workshop Results: Water Monitoring - Tributaries **Q15** Here is a list of tributary monitoring parameters Respondent skipped this question identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs. **Q16** Here is a list of tributary monitoring parameters that Respondent skipped this question were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q17** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Page 7: Additional Monitoring Programs and Funding

Q18 Based on a review of the draft monitoring inventory

and your knowledge of other existing programs, are there any geographies that you believe would benefit

from more robust monitoring efforts for tributary monitoring parameters in the future?

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Tuesday, December 11, 2018 4:35:42 PM Last Modified: Tuesday, December 11, 2018 4:57:14 PM

Time Spent: 00:21:32 **IP Address:** 108.35.10.169

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Mary Allessio Leck

Organization Friends for the Abbott Marshlands

Email Address leck@rider.edu

Q2 Select your area(s) of expertise (please select all that

apply)

Tidal/nontidal wetlands

Other (please

specify):

tidal freshwater plants and seedlings

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Invasive species 1

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves

High Priority

Invasive species

High Priority

Marine mammals and sea turtles High Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

I am not qualified.

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Nor qualified.

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Transition zone monitoring

1

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data Moderate Priority

Cumulative impacts Moderate Priority

Dredging data Low Priority

Forest health

Sediment stratification

Submerged habitat

Moderate Priority

Moderate Priority

Moderate Priority

Transition zone monitoring High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

habitat changes, e.g., high marsh to low marsh

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Microplastics	2
Monitoring conducted on the center channel replicated for the	5
banks and at additional depths	
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	4

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	High Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	High Priority
Pharmaceuticals	High Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Changes in plant species distribution; extirpation of plant speces.

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Changes and extirpation of rare species.

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Nuisance algal blooms	1
Pharmaceuticals	4
Temperature at short intervals	3
Wet weather (storm flow) monitoring	2

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis	Moderate Priority
Flow measurements	Moderate Priority
Nuisance algal blooms	High Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	High Priority
Wet weather (storm flow) monitoring	Moderate Priority

Q17 Based on a review of the draft monitoring inventory	
and your knowledge of other existing programs, are	
there any tributary monitoring parameters that you	
believe are not indicated above that should be elevated	
for monitoring in the future?	

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory
and your knowledge of other existing programs, are
there any geographies that you believe would benefit
from more robust monitoring efforts for
tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

No

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

My organization is directly concerned with monitoring

INCOMPLETE

Collector: Web Link 1 (Web Link)

Started: Wednesday, December 12, 2018 9:01:57 AM Last Modified: Wednesday, December 12, 2018 9:10:31 AM

Time Spent: 00:08:34 **IP Address:** 129.25.250.73

Page 2: Identifying Information

Q1 Please enter your contact information.

Name	David Keller

Organization Academy of Natural Sciences

Email Address dhk44@drexel.edu

Q2 Select your area(s) of expertise (please select all that apply)

Brackish or marine resources and

organisms

Fish,

Freshwater resources and

organisms

Invasive species,

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves	3
Invasive species	4
Marine mammals and sea turtles	1
Population-level monitoring	2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Q12 Here is a list of Delaware River and Bay monitoring Respondent skipped this question parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q13** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future? **Q14** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future? Page 6: Workshop Results: Water Monitoring - Tributaries **Q15** Here is a list of tributary monitoring parameters Respondent skipped this question identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs. **Q16** Here is a list of tributary monitoring parameters that Respondent skipped this question were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority. **Q17** Based on a review of the draft monitoring inventory Respondent skipped this question and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Page 7: Additional Monitoring Programs and Funding

Q18 Based on a review of the draft monitoring inventory

and your knowledge of other existing programs, are there any geographies that you believe would benefit

from more robust monitoring efforts for tributary monitoring parameters in the future?

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Wednesday, December 12, 2018 4:22:13 PM **Last Modified:** Wednesday, December 12, 2018 4:38:07 PM

Time Spent: 00:15:53 **IP Address:** 73.226.50.109

Page 2: Identifying Information

Q1 Please enter your contact information.

Organization Rutgers University Haskin Shellfish Research

Laboratory

Email Address bushek@hsrl.rutgers.edu

Q2 Select your area(s) of expertise (please select all that

apply)

Brackish or marine resources and

organisms

Coastal ecology/function,

Ecosystem services,

Fish,

Shellfish and benthic

resources

Other (please specify):

Shellfish pathology

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves	1
Invasive species	2
Marine mammals and sea turtles	4
Population-level monitoring	3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves High Priority

Invasive species Moderate Priority

Marine mammals and sea turtles Low Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Human and animal pathogens

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	7
Cumulative Impacts	4
Dredging data	3
Forest health	6
Sediment stratification	2
Submerged habitat	1
Transition zone monitoring	5

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

Moderate Priority

Dredging data

Low Priority

Forest health

Low Priority

Sediment stratification

Moderate Priority

Submerged habitat

Moderate Priority

Transition zone monitoring

Low Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

shoreline habitat quality and change

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Respondent skipped this question

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	5
Fish tissue analysis for bioaccumulating compounds	6
Microplastics	7
Monitoring conducted on the center channel replicated for the banks and at additional depths	1
PCBs	3
Pharmaceuticals	4
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	2

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	Moderate Priority
Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	Moderate Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	High Priority
PCBs	Moderate Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	Moderate Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	8
Fish tissue analysis	5
Flow measurements	1
Groundwater	2
Nuisance algal blooms	6
Pharmaceuticals	7
Temperature at short intervals	4
Wet weather (storm flow) monitoring	3

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors Low Priority

Fish tissue analysis Moderate Priority

Flow measurements High Priority

Groundwater High Priority

Nuisance algal blooms Moderate Priority

Pharmaceuticals Low Priority

Temperature at short intervals Moderate Priority

Wet weather (storm flow) monitoring High Priority

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?

Respondent skipped this question

Page 7: Additional Monitoring Programs and Funding

Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?

Yes

Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?

Bayshore Council

Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?

Yes

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

COMPLETE

Collector: Web Link 1 (Web Link)

Started: Thursday, December 06, 2018 2:49:26 PM Last Modified: Thursday, December 13, 2018 12:56:49 PM

Time Spent: Over a day IP Address: 134.67.29.84

Page 2: Identifying Information

Q1 Please enter your contact information.

Name Kelly Somers
Organization US EPA R3

Email Address somers.kelly@epa.gov

Q2 Select your area(s) of expertise (please select all that apply)

Brackish or marine resources and

organisms

Citizen science,

Coastal ecology/function,

Community engagement,

Data management,

Ecosystem services,

Freshwater resources and

organisms

Tidal/nontidal wetlands

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 1

Invasive species 2

Marine mammals and sea turtles 4

Population-level monitoring 3

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Freshwater bivalves	High Priority
Invasive species	High Priority
Marine mammals and sea turtles	Moderate Priority
Population-level monitoring	Moderate Priority
Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	1	
Cumulative Impacts	6	
Dredging data	3	
Forest health	7	
Sediment stratification	5	
Submerged habitat	2	
Transition zone monitoring	4	

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Buffer data

Cumulative impacts

Moderate Priority

Dredging data

High Priority

Forest health

Moderate Priority

Sediment stratification

Moderate Priority

Submerged habitat

High Priority

High Priority

High Priority

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Most monitoring data was identified in the main stem and bay as well as the larger inputs, but there isn't much data on the small tribs and watersheds

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Endocrine disruptors	4
Fish tissue analysis for bioaccumulating compounds	6
Microplastics	3
Monitoring conducted on the center channel replicated for the banks and at additional depths	7
PCBs	1
Pharmaceuticals	5
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	2

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Endocrine disruptors	High Priority
Fish tissue analysis for bioaccumulating compounds	Moderate Priority
Microplastics	High Priority
Monitoring conducted on the center channel replicated for the banks and at additional depths	Moderate Priority
PCBs	High Priority
Pharmaceuticals	Moderate Priority
Phytotoxins, cyanotoxins, Harmful Algal Bloom toxins	High Priority
Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Endocrine disruptors	4
Fish tissue analysis	6
Flow measurements	1
Groundwater	2
Nuisance algal blooms	5
Pharmaceuticals	7
Temperature at short intervals	8
Wet weather (storm flow) monitoring	3

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

5 P - 3	
Endocrine disruptors	Moderate Priority
Fish tissue analysis	Moderate Priority
Flow measurements	High Priority
Groundwater	High Priority
Nuisance algal blooms	Moderate Priority
Pharmaceuticals	Moderate Priority
Temperature at short intervals	Moderate Priority
Wet weather (storm flow) monitoring	Moderate Priority
Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?	Respondent skipped this question
Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding	
Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	No
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Yes
Q22 If you answered "no" for Question 21, what level of funding is needed for which program?	Respondent skipped this question

INCOMPLETE

Invasive species

Collector: Web Link 1 (Web Link)

Started: Friday, December 14, 2018 10:24:15 AM Last Modified: Friday, December 14, 2018 10:30:13 AM

Time Spent: 00:05:58 **IP Address:** 173.15.169.165

Page 2: Identifying Information

Q1 Please enter your contact information.

Name maria dziembowska

Organization The Nature Conservancy
Email Address mdziembowska@tnc.org

Q2 Select your area(s) of expertise (please select all that apply)

Citizen science,

Community engagement,

Policy and/or funding,

Urban/regional planning or land use,

Water quality

Page 3: Workshop Results: Non-Plant Living Resources

Q3 Here is a list of non-plant living resources identified at the workshop as not yet being robustly monitored in the study area. From 1-4, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Freshwater bivalves 3
Invasive species 1
Marine mammals and sea turtles 4
Population-level monitoring 2

Q4 Here is a list of non-plant living resources that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

High Priority

Freshwater bivalves Low Priority

Marine mammals and sea turtles Low Priority

Population-level monitoring Moderate Priority

Q5 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any non-plant living resource parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q6 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for non-plant living resources in the future?

Respondent skipped this question

Page 4: Workshop Results: Plants and Habitat

Q7 Here is a list of plant and habitat parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Buffer data	2
Cumulative Impacts	3
Dredging data	5
Forest health	1
Sediment stratification	4
Submerged habitat	6
Transition zone monitoring	7

Q8 Here is a list of plant and habitat parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each resource, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q9 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any plant and habitat parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q10 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for plant and habitat parameters in the future?

Page 5: Workshop Results: Water Monitoring - Delaware River and Bay

Q11 Here is a list of Delaware River and Bay monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-7, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring parameters.

Respondent skipped this question

Q12 Here is a list of Delaware River and Bay monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q13 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any Delaware River and Bay monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Respondent skipped this question

Q14 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for Delaware River and Bay monitoring parameters in the future?

Respondent skipped this question

Page 6: Workshop Results: Water Monitoring - Tributaries

Q15 Here is a list of tributary monitoring parameters identified at the workshop as not yet being robustly monitored in the study area. From 1-8, with 1 being "most important," rank the importance of these missing or not-yet robust monitoring programs.

Respondent skipped this question

Q16 Here is a list of tributary monitoring parameters that were identified at the workshop as not yet being robustly monitored in the study area. For each parameter, indicate whether you think monitoring it is a low priority, a moderate priority, or a high priority.

Respondent skipped this question

Q17 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any tributary monitoring parameters that you believe are not indicated above that should be elevated for monitoring in the future?

Q22 If you answered "no" for Question 21, what level of funding is needed for which program?

Q18 Based on a review of the draft monitoring inventory and your knowledge of other existing programs, are there any geographies that you believe would benefit from more robust monitoring efforts for tributary monitoring parameters in the future?	Respondent skipped this question
Page 7: Additional Monitoring Programs and Funding Q19 Are you aware of volunteer organizations that could be included in the Delaware Estuary monitoring assessment?	Respondent skipped this question
Q20 If you answered "yes" for Question 19, what is/are the name(s) of the volunteer organization(s)?	Respondent skipped this question
Q21 Does your organization anticipate having sufficient funding over the next ten years to carry out existing monitoring programs within the Delaware Estuary?	Respondent skipped this question