

Fish and Aquatic Habitat

A Survey of Northeast Residents

(CT, DE, MA, MD, ME, NH, NJ, NY, RI, VT)



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Thank you for helping us to test and develop this important survey!

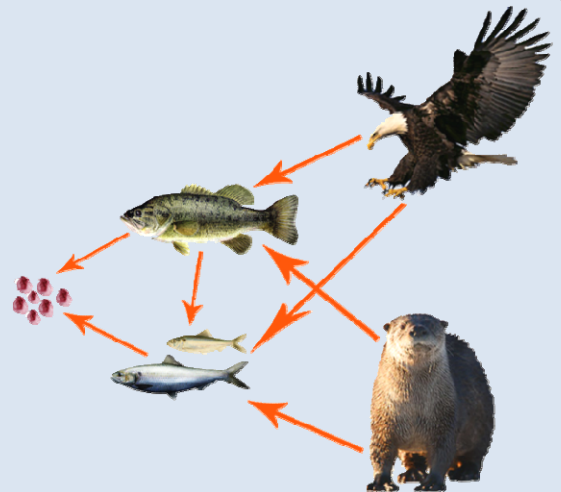
HUMAN ACTIVITIES, AQUATIC HABITAT AND FISH

This survey asks for your opinions regarding policies that would affect fish and habitat in the Northeast US. This section provides important background information.

Northeast fresh and salt waters support billions of fish. These include fish that are used by humans, as well as forage fish that are not used by humans. Natural factors such as weather have always influenced fish habitat, but in recent years human activities have had an increasing effect.

Activities that affect fish include fishing, pollution, commercial and residential development, and the extraction of cooling water at industrial facilities.

Declines in fish can affect the condition of ecological systems, food webs, and related human uses such as fishing.



This survey concerns proposed policies that would reduce fish losses caused by cooling water use by industrial facilities, including factories and power plants.

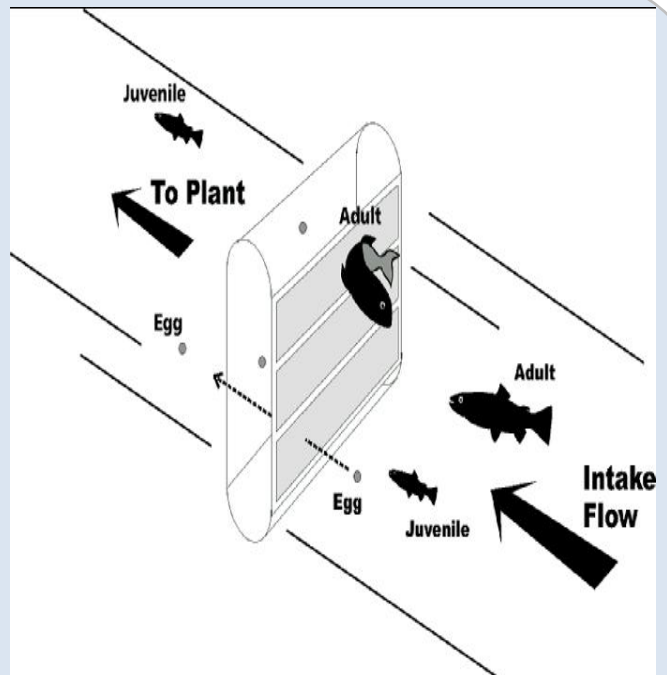
HOW DOES COOLING WATER AFFECT FISH?

The water that industrial facilities use to cool equipment is pumped from bays, rivers, and lakes. The largest amount is used by power plants that produce electricity.

The equipment that pumps the cooling water kills small fish and fish eggs.

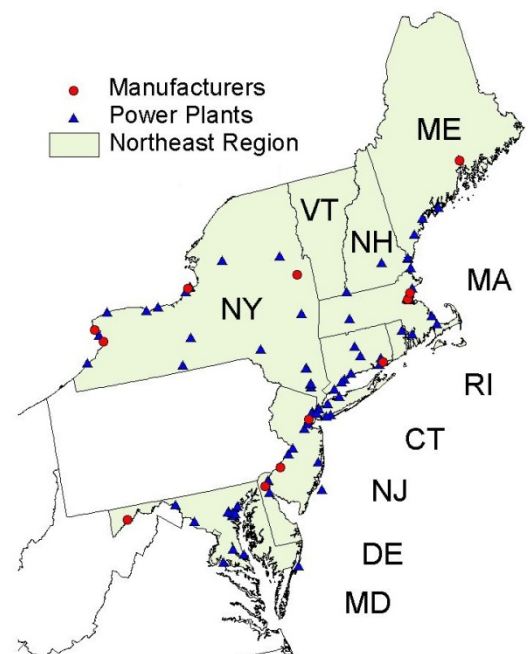
Large fish may be injured or killed against screens or filters.

Pumping warm water back into the environment (called *thermal discharge*) also affects ecological systems.



How Cooling Water Use Affects Fish

Cooling water use affects fresh and salt waters throughout the Northeast US, but almost all fish losses are in salt waters such as coastal bays.




WHAT KINDS OF FISH ARE AFFECTED?

Cooling water use is **not** the largest cause of fish loss in most areas (fishing causes greater losses), but has affected some fish stocks.

About 1/3 of the fish lost are species caught by commercial and recreational fishermen. Examples include striped bass, flounder, and cod.

The other 2/3 of the fish lost are species not caught by humans but are part of the food web. Examples include killifish, silverside, and stickleback.

Question 1. When thinking about how industrial facilities use cooling water, please rate the importance of the following to you. Check one box for each.

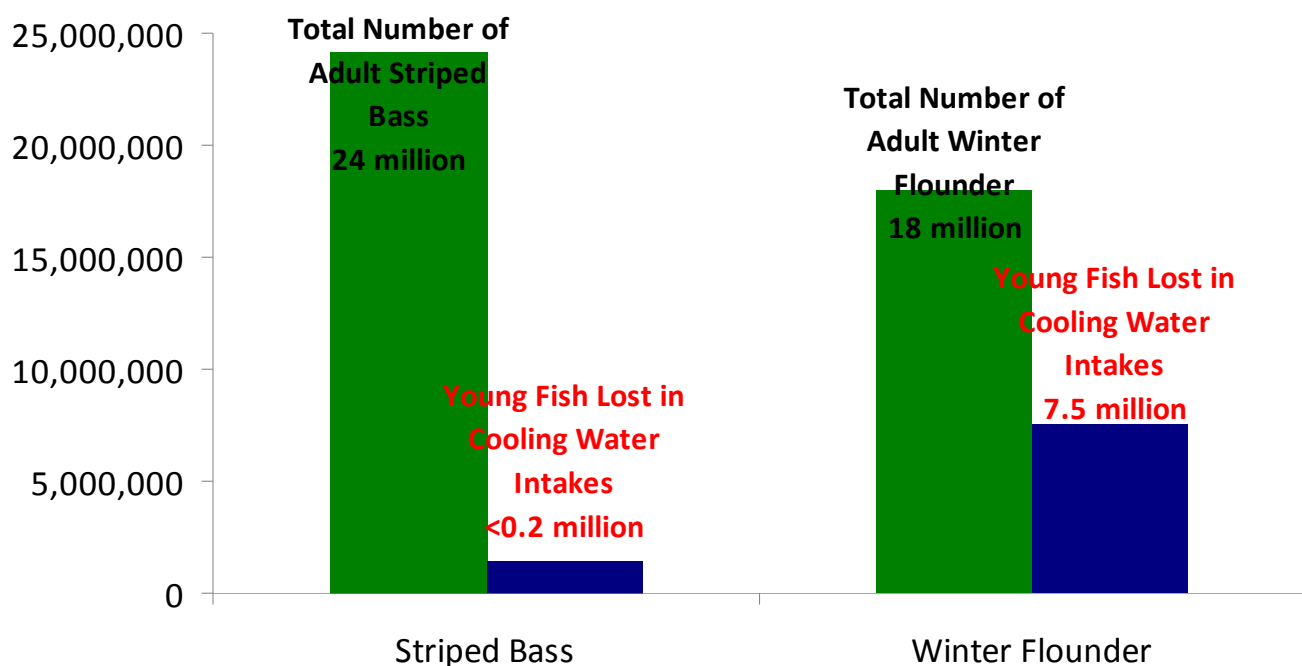
	Not Important		Somewhat Important		Very Important
					
1. Preventing the loss of fish that are caught by humans	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
2. Preventing the loss of fish that are not caught by humans	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
3. Maintaining the ecological health of rivers, lakes and bays	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
4. Allowing facilities to produce products and services at low cost	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
5. Reducing government regulations on facilities	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

HOW MANY FISH ARE AFFECTED? A NORTHEAST COASTAL EXAMPLE

SCIENTISTS KNOW THAT about 1.1 billion young fish are lost per year in Northeast coastal waters due to cooling water use. But, scientists do **not** know the total number of fish in Northeast coastal waters.

Studies of **specific fish** can provide some information on how many fish are lost, compared to the total number of fish in the water.

- Sometimes the number of young fish lost is relatively small compared to the total number of adult fish—an example is striped bass (see graph below).
- Sometimes the number of young fish lost is relatively large compared to the total number of adult fish—an example is winter flounder (see graph below).
- For many types of fish, the number of young fish lost compared to the total number of adult fish lies somewhere in between these extremes.
- Even though scientists can predict approximately the number of fish that will be saved, the ultimate effects on fish populations (the number of fish in the water) is uncertain.



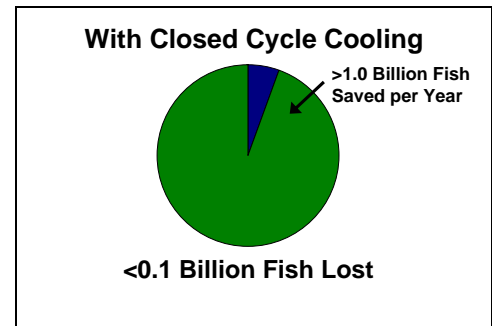
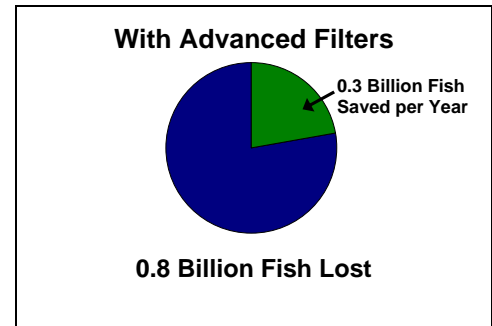
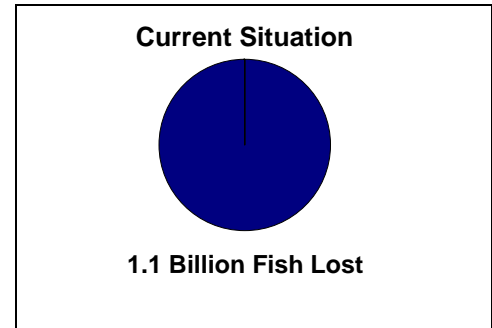
NEW REGULATIONS ARE BEING PROPOSED TO PROTECT FISH

Under current regulations, about 1.1 billion fish are lost in coastal waters.

The government is considering policies that would require additional measures to protect fish.

One policy would require **advanced filters** that block fish from entering cooling water facilities. Requiring advanced filters could reduce fish losses about 25%.

Another possibility is **closed cycle cooling** that substantially reduces the need for outside cooling water. Requiring closed cycle cooling could reduce fish losses by 95%. However, costs are higher than for advanced filters.




Advanced filters and closed cycle cooling are already in use at many facilities and are proven technologies. There are options being considered by the government that would require these types of equipment at all facilities.

While these policies would reduce fish losses, they would also increase the costs of producing many goods and services — these costs would be passed on to consumers like you.

WOULD YOU VOTE FOR POLICIES TO HELP PROTECT FISH AND FISH HABITAT?

The government needs to know whether households are willing to pay the costs required to reduce fish losses and related ecological effects. This survey will help the government decide which policies will be enacted, if any.






Question 2. Indicate the importance of the following issues to you. Check one box for each.

	Not Important		Somewhat Important		Very Important
					
1. Improving public safety	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
2. Protecting air quality	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
3. Reducing taxes	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
4. Improving homeland security	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
5. Protecting aquatic life and habitat	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
6. Maintaining industry and jobs	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
7. Reduce cost of living to households	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5
8. Protecting water quality	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _4	<input type="checkbox"/> _5

THIS SURVEY IS SIMILAR TO A PUBLIC VOTE

This survey asks you to compare policies with different effects on cooling water use, fish, and costs to your household. You will be asked to vote for the options you prefer.

Effects of each project will be described using the following scores:

Effect of Policy	What It Means
 Fish Saved (per Year)	The reduction in the number of fish lost: 0 to 100 score showing the reduction in young fish losses because of the new policy. A score of 100 means that no fish are lost in cooling water intakes (all fish are saved). A score of 0 represents the status quo.
 Commercial Fish Sustainability (Fish Used by People)	A score between 0 - 100 that shows effects on the sustainability of commercial fish. Higher scores mean that fishing is more sustainable compared to fish population (<i>see details on following pages</i>). The current score in the Northeast US is 65.
 Fish Population (All Fish)	A score between 0 - 100 that shows the size of all fish populations compared to the natural abundance without human influence. Higher scores mean more fish (<i>see details on following pages</i>). The current score in Northeast coastal waters is 37.
 Condition of Aquatic Ecosystems	The effect on coastal ecosystems and food webs: 0 to 100 score showing the ecological condition of affected areas, compared to the most natural waters in the Northeast. Higher scores mean that the area is more natural (<i>see details on following pages</i>). The current score in Northeast coastal waters is 48.
 Cost per Year	How much the project will cost your household , in unavoidable price increases for products you buy.

TWO SCORES SHOW EFFECTS ON FISH

1. Commercial Fish Sustainability Score



A score between **0 - 100** that shows effects on the sustainability of commercial fish. Higher scores mean that the ecosystem can maintain current fishing levels without compromising the ability of future generations to fish commercially.

A score of **100** means that scientists are fairly certain that all fish stocks are used sustainably (e.g., fishing is within biological limits).

The lowest score anywhere in the US is approximately **25**. A score this low means that ecosystems can not maintain fish populations for half of all species, and that scientists do not have reliable information on 4 out of every 10 species.

The current score in Northeast US waters is **65**¹ — commercial fish sustainability is at 65% of maximum.

2. Fish Population Score



A score between **0 - 100** that shows the size of all fish populations compared to population sizes without human influence. Higher scores mean more fish.

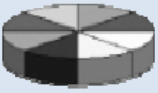
A score of **100** means that populations are at the largest natural size possible in the ecosystem. This is the number of fish that existed before humans started fishing.

A score of **0** would mean that there are no fish at all.

The current score in Northeast US waters is **37** — current fish populations are at 37% of the size they would be without human influence.

¹ Technical Note: The scientific name for this score is the Fish Stock Sustainability Index (FSSI), calculated by the National Oceanic and Atmospheric Administration (NOAA). Three components combine to make the overall score: (1) the size of commercial fish populations compared to the most productive biological size; (2) how many fish are caught compared to sustainable levels; (3) whether scientists have good information regarding fish populations.

THE AQUATIC ECOSYSTEMS SCORE



The Aquatic Ecosystems Score is a 0 - 100 score showing the effects of policies on the overall ecological condition of affected areas.

It measures how close affected Northeast waters are to the most natural, undisturbed condition that is possible. Higher scores mean the area is more natural.

The following information is combined to make the final score:

Measurements Combined to Form the Aquatic Ecosystems Score	What Each Measure Means
Water Quality Score	The score indicates whether the water is suitable for recreation and aquatic life. It is based on measures such as dissolved oxygen, nitrogen and phosphorus pollution, water clarity, temperature and algae.
Benthic Score (bay, river or lake bottom)	The health of species that live on the bottom (e.g., mussels, crayfish). Measures such things as the number of all species and presence of rare species.
Sediment Quality Score	Based on the survival of bottom dwellers, level of sediment pollution and excessive organic material on the bottom. <u>Sediment quality will not be affected by the proposed programs.</u>
Coastal Habitat Score	Based on average historical changes of wetland areas compared to changes in recent years. <u>Wetland areas will not be affected by the proposed programs.</u>
Fish Tissue Contamination	Contaminants measured in fish tissue are indicators of contaminants present in surface waters. <u>Fish tissue contamination will not be affected by the proposed programs.</u>

HOW WOULD YOU RATE THE IMPORTANCE OF THESE EFFECTS?

Question 3. When considering policies that affect how coastal facilities use cooling water, how important to you are effects on each of the following scores? Check one box for each. (For reminders of what the scores mean, please see page 8).





	Not Important		Somewhat Important		Very Important
1. Effect on fish losses prevented	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. Effect on commercial fish sustainability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. Effect on the fish populations (for all fish)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. Effect on the condition of aquatic ecosystems	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. Effect on cost to my household	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

The next questions will ask you to choose between different policy options that would affect fish losses in cooling water systems.

You will be given choices and asked to vote for the choice you prefer by checking the appropriate box. Questions will look similar to the sample on the next page.

SAMPLE QUESTION

Questions will look like the sample below.

Policy Effect	Current Situation (No policy)	Option A	Option B
 <p>Fish Saved per Year (Out of 1.1 billion fish lost in salt water intakes)</p>	<p>0% No change in status quo</p>	<p>25% 0.3 billion fish saved</p>	<p>50% 0.6 billion fish saved</p>
 <p>Commercial Fish Sustainability (in 3-5 Years)</p>	<p>65% Out of 100% maximum</p>	<p>67% Out of 100% maximum</p>	<p>69% Out of 100% maximum</p>
 <p>Fish Population (all fish) (in 3-5 Years)</p>	<p>37% Out of 100% maximum</p>	<p>40% Out of 100% maximum</p>	<p>40% Out of 100% maximum</p>
 <p>Condition of Aquatic Ecosystems (in 3-5 Years)</p>	<p>48% Out of 100% maximum</p>	<p>48% Out of 100% maximum</p>	<p>50% Out of 100% maximum</p>
<p>\$</p> <p>Increase in Cost of Living for Your Household</p>	<p>\$0 No cost increase</p>	<p>\$24 per year (\$2 per month)</p>	<p>\$36 per year (\$3 per month)</p>
<p>HOW WOULD YOU VOTE? (CHOOSE ONE ONLY)</p>	<p><input checked="" type="checkbox"/> X</p> <p>I would vote for NO POLICY</p>	<p><input checked="" type="checkbox"/> X</p> <p>I would vote for OPTION A</p>	<p><input checked="" type="checkbox"/> X</p> <p>I would vote for OPTION B</p>

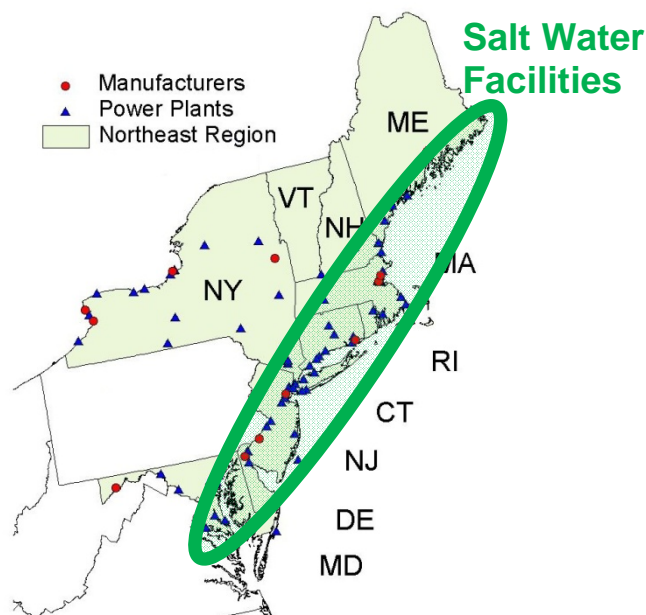
If you do not want A or B, check this box

If you prefer **Option A**, check this box

If you prefer **Option B**, check this box





AS YOU VOTE PLEASE REMEMBER

- The map below shows the coastal (salt water) facilities and areas that would be affected by the proposed policies.
- Depending on the policies chosen, costs to your household could range from \$0 per month to a maximum of \$6 per month.
- Depending on the type of technology required and other factors, effects on fish and ecosystems may be different—even if the annual reduction in fish losses is similar.
- Consider each pair of policy options separately—do not add them up or compare programs from different pages.
- Scientists expect that effects on the environment and economy not shown explicitly will be small.
- Your votes are important. Answer all questions as if this were a real, binding vote.



Coastal Facilities Affected by the Proposed Policies





Question 4. Assume that Options A and B would require *different technology* to prevent fish losses in **coastal** facilities that use cooling water, and that all types of fish would be affected. How would you vote?

Policy Effect NE Coastal	Current Situation (No policy)	Option A NE Coastal	Option B NE Coastal
 Fish Saved per Year (Out of 1.1 billion fish lost in salt water intakes)	0% No change in status quo	25% 0.3 billion fish saved	50% 0.6 billion fish saved
 Commercial Fish Sustainability (in 3-5 Years)	65% Out of 100% maximum	65% Out of 100% maximum	65% Out of 100% maximum
 Fish Population (all fish) (in 3-5 Years)	37% Out of 100% maximum	40% Out of 100% maximum	40% Out of 100% maximum
 Condition of Aquatic Ecosystems (in 3-5 Years)	48% Out of 100% maximum	48% Out of 100% maximum	50% Out of 100% maximum
\$ Increase in Cost of Living for Your Household	\$0 No cost increase	\$24 per year (\$2 per month)	\$36 per year (\$3 per month)
HOW WOULD YOU VOTE? (CHOOSE ONE ONLY)	<input type="checkbox"/> I would vote for NO POLICY	<input type="checkbox"/> I would vote for OPTION A	<input type="checkbox"/> I would vote for OPTION B





Now you will be asked to consider a new set of policy options for Northeast waters. As you vote, please remember—

- Questions 5 and 6 present a new set of policy options. These options require different technology in different areas.
- Each question is a separate vote. Questions 5 and 6 cannot be directly compared to each other, or to Question 4.
- Do not add up effects or costs across different questions.
- Policy costs and effects depend on many factors. Saving more fish does not necessarily mean that all effects will improve.

Question 5. Assume that Options A and B would require *different technology* to prevent fish losses in **coastal** facilities that use cooling water, and that all types of fish would be affected. How would you vote?

Policy Effect NE Coastal	Current Situation (No policy)	Option A NE Coastal	Option B NE Coastal
 Fish Saved per Year (Out of 1.1 billion fish lost in salt water intakes)	0% No change in status quo	25% 0.3 billion fish saved	75% 0.8 billion fish saved
 Commercial Fish Sustainability (in 3-5 Years)	65% Out of 100% maximum	67% Out of 100% maximum	69% Out of 100% maximum
 Fish Population (all fish) (in 3-5 Years)	37% Out of 100% maximum	37% Out of 100% maximum	42% Out of 100% maximum
 Condition of Aquatic Ecosystems (in 3-5 Years)	48% Out of 100% maximum	48% Out of 100% maximum	52% Out of 100% maximum
\$ Increase in Cost of Living for Your Household	\$0 No cost increase	\$36 per year (\$3 per month)	\$40 per year (\$5 per month)
HOW WOULD YOU VOTE? (CHOOSE ONE ONLY)	<input type="checkbox"/> I would vote for NO POLICY	<input type="checkbox"/> I would vote for OPTION A	<input type="checkbox"/> I would vote for OPTION B

Question 6. Assume that Options A and B would require *different technology* to prevent fish losses in **coastal** facilities that use cooling water, and that all types of fish would be affected. How would you vote?

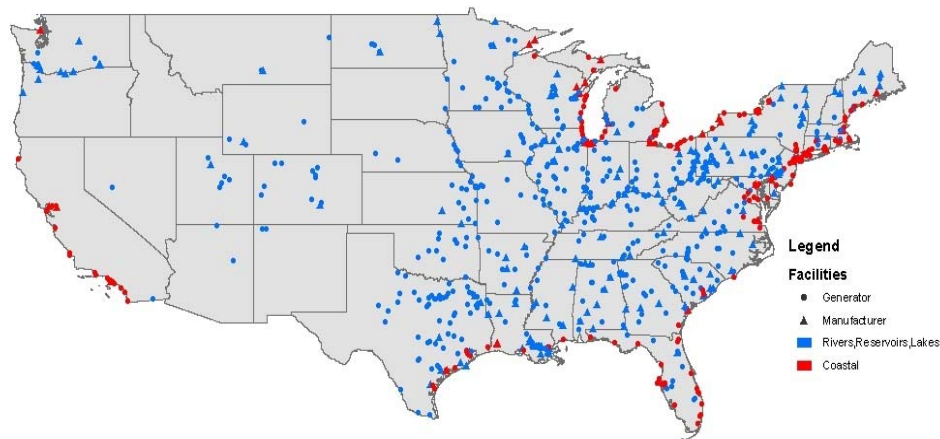
Policy Effect NE Coastal	Current Situation (No policy)	Option A NE Coastal	Option B NE Coastal
 <p>Fish Saved per Year (Out of 1.1 billion fish lost in salt water intakes)</p>	<p>0% No change in status quo</p>	<p>95% 1.0 billion fish saved</p>	<p>50% 0.6 billion fish saved</p>
 <p>Commercial Fish Sustainability (in 3-5 Years)</p>	<p>65% Out of 100% maximum</p>	<p>72% Out of 100% maximum</p>	<p>72% Out of 100% maximum</p>
 <p>Fish Population (all fish) (in 3-5 Years)</p>	<p>37% Out of 100% maximum</p>	<p>45% Out of 100% maximum</p>	<p>45% Out of 100% maximum</p>
 <p>Condition of Aquatic Ecosystems (in 3-5 Years)</p>	<p>48% Out of 100% maximum</p>	<p>52% Out of 100% maximum</p>	<p>52% Out of 100% maximum</p>
<p>\$</p> <p>Increase in Cost of Living for Your Household</p>	<p>\$0 No cost increase</p>	<p>\$72 per year (\$6 per month)</p>	<p>\$24 per year (\$2 per month)</p>
<p>HOW WOULD YOU VOTE? (CHOOSE ONE ONLY)</p>	<p><input type="checkbox"/></p> <p>I would vote for NO POLICY</p>	<p><input type="checkbox"/></p> <p>I would vote for OPTION A</p>	<p><input type="checkbox"/></p> <p>I would vote for OPTION B</p>

Question 7. If you **always voted for NO POLICY** in questions 4-6, what was the primary reason? Check one. (Skip this question if you voted for Option A or B in any question above.)





- ☐ The cost to my household was too high
- ☐ Preventing fish losses is not important to me
- ☐ I do not trust the government to fix the problem
- ☐ I would rather spend my money on other things
- ☐ I did not believe the choices were realistic
- ☐ Since the problem was created by private facilities, they should fix it without passing costs on to consumers

NATIONAL VERSUS NORTHEAST POLICIES

Now assume that the same types of policies were proposed for the **entire United States instead of only the Northeast**, and that affected facilities include all those shown on the map, including those in **fresh and salt waters**. How would you vote?



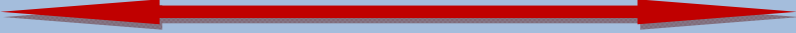
Question 8. Now assume that the same types of policies were proposed for the entire United States. Assume that all US households would pay for these programs. How would you vote?

Policy Effect ALL of US	Current Situation (No policy)	Option A ALL of US	Option B ALL of US
 <p>Fish Saved per Year (Out of 2.7 billion fish lost in salt water intakes)</p>	<p>0% No change in status quo</p>	<p>25% 0.7 billion fish saved</p>	<p>50% 1.4 billion fish saved</p>
 <p>Commercial Fish Sustainability (in 3-5 Years)</p>	<p>61% Out of 100% maximum</p>	<p>61% Out of 100% maximum</p>	<p>61% Out of 100% maximum</p>
 <p>Fish Population (all fish) (in 3-5 Years)</p>	<p>42% Out of 100% maximum</p>	<p>42% Out of 100% maximum</p>	<p>44% Out of 100% maximum</p>
 <p>Condition of Aquatic Ecosystems (in 3-5 Years)</p>	<p>46% Out of 100% maximum</p>	<p>46% Out of 100% maximum</p>	<p>48% Out of 100% maximum</p>
<p>\$</p> <p>Increase in Cost of Living for Your Household</p>	<p>\$0 No cost increase</p>	<p>\$72 per year (\$6 per month)</p>	<p>\$120 per year (\$10 per month)</p>
<p>HOW WOULD YOU VOTE? (CHOOSE ONE ONLY)</p>	<p><input type="checkbox"/></p> <p>I would vote for NO POLICY</p>	<p><input type="checkbox"/></p> <p>I would vote for OPTION A</p>	<p><input type="checkbox"/></p> <p>I would vote for OPTION B</p>

Question 9. Indicate how strongly you agree with the following statements about questions 4 - 8 and the information provided. Check one box for each.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The survey provided enough information for me to make informed choices	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
I feel confident about my answers	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Information in the survey was easy to understand	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Information in the survey was fair and balanced	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Questions were easy to answer	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
I would vote the same way in an actual public vote	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
The effect of the proposed policies depends on many factors	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Future ecological conditions are never 100% guaranteed	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Question 10. How much did the following factors affect your answers to questions 4 – 8? Check one box for each.

	Effect on my answers to questions 4-8				
	Very Small Effect		Moderate Effect		Very Large Effect
					
Wanting to reduce taxes or costs to my household.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to prevent the loss of industrial jobs.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to preserve fish for commercial fishing.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to send a message that all environmental issues are important regardless of cost.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to preserve fish for recreation (fishing, etc.).	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to preserve fish to benefit aquatic ecosystems.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to know that fish exist in local lakes, rivers and bays.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to pay my fair share for government programs.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to increase the competitiveness of US business	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to preserve fish as a source of food for people.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Wanting to preserve fish and ecosystems for future generations.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Question 11. How many days did you participate in the following during the last year? Please include activities in **ALL LOCATIONS**. Remember to count each day separately for trips longer than one day. Check one box for each.

	Number of days you did the activity during the past year				
	0	1-5	6-10	11-15	16+
Boating / Canoeing / Kayaking	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Swimming / Going to the Beach	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Recreational Fishing (Fresh Water)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Recreational Fishing (Salt Water)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Shellfishing / Crabbing	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Scuba Diving / Snorkeling	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Question 12. How many days did you participate in each of the following activities during the last year, **IN THE NORTHEASTERN US ONLY**? Northeastern states include: CT, DE, MA, MD, ME, NH, NJ, NY, RI, VT. Remember to count each day separately for trips longer than one day. Check one box for each.

	Number of days you did the activity during the past year				
	0	1-5	6-10	11-15	16+
Boating / Canoeing / Kayaking	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Swimming / Going to the Beach	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Recreational Fishing (Fresh Water)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Recreational Fishing (Salt Water)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Shellfishing / Crabbing	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Scuba Diving / Snorkeling

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

Question 13. For each of the following activities, indicate whether the activity is better or worse if there are more fish in the water. Check one box for each statement.

	Activity is <u>worse</u> if there are more fish	Activity is <u>not better or worse</u> if there are more fish	Activity is <u>better</u> if there are more fish	N/A I <u>do not participate</u> in this activity
Boating / Canoeing / Kayaking	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Swimming / Going to the Beach	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Recreational Fishing (Fresh Water)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Recreational Fishing (Salt Water)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Shellfishing / Crabbing	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Scuba Diving / Snorkeling	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

***The following questions ensure that all groups are fairly represented.
All answers are anonymous and confidential.***

14. What is your age? ____ years

15. What is your gender? ☐ Male ☐ Female

16. What is the highest level of education that you have completed?

- | | |
|---|---|
| <input type="checkbox"/> Less than high school | <input type="checkbox"/> One or more years of college |
| <input type="checkbox"/> High school or equivalent | <input type="checkbox"/> Bachelor's Degree |
| <input type="checkbox"/> High school + technical school | <input type="checkbox"/> Graduate Degree |

16. How many people live in your household? _____

17. How many of these people are 16 years of age or older? _____

18. How many of these people are 6 years of age or younger? _____

19. What is your zip code? _____

20. What town and state do you live in? Town: _____ State: _____

21. Are you currently employed? ____ Yes _____ No

22. What category comes closest to your total household income?

- | | |
|---|---|
| <input type="checkbox"/> Less than \$10,000 | <input type="checkbox"/> \$60,000 to \$79,999 |
| <input type="checkbox"/> \$10,000 to \$19,999 | <input type="checkbox"/> \$80,000 to \$99,999 |
| <input type="checkbox"/> \$20,000 to \$39,999 | <input type="checkbox"/> \$100,000 to \$249,999 |
| <input type="checkbox"/> \$40,000 to \$59,999 | <input type="checkbox"/> \$250,000 or more |

23. If you have any comments on this survey, please write them below:

Thank you for your participation in this important survey!