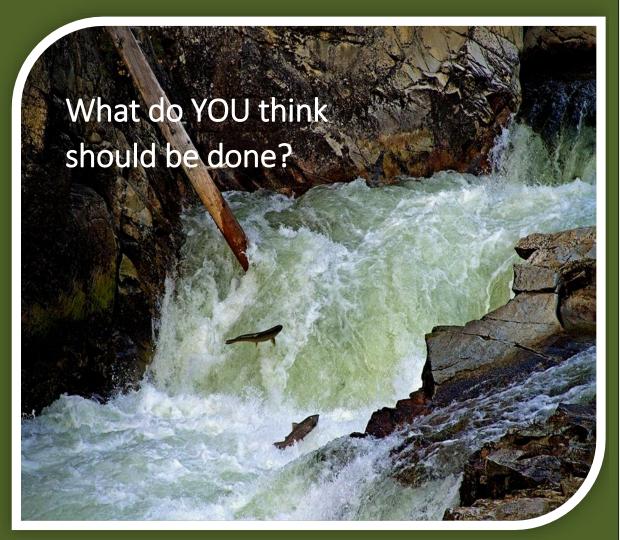
## Oregon Salmon and Steelhead Recovery

Your opinions are needed to inform policy decisions that affect salmon and steelhead fish population management in Oregon. Please return your completed survey in the provided postage-paid envelope.

Thank you for your help.



#### WHAT THIS SURVEY IS ABOUT

This survey asks for your opinion on Willamette River watershed salmon & steelhead fisheries management. Your household was chosen at random from a list of Oregon addresses to receive this survey. Your responses will help authorities choose the best option. Some of the background information is based on Oregon Department of Fish and Wildlife and National Oceanic and Atmospheric Administration sources, but this survey was written and sponsored by the Environmental Protection Agency.

#### **Fish Species**

There are several species of salmon and steelhead trout in Oregon. These fish
live most of their lives in the ocean, but return to Oregon rivers and streams to
spawn. There are two kinds of fish: wild-origin fish, reproducing on their own;
and hatchery-origin fish, bred in fish hatcheries and released into rivers and
streams to provide fishing opportunities.

#### **Location**

• This survey is about the salmon and steelhead in the <u>Willamette River watershed</u> only, shown in the map on the next page. The Willamette River is the main river passing through the most populated parts of Oregon, such as Eugene, Salem, and Portland. Fish have to swim up the Columbia River and through Portland to get to any part of the upper Willamette watershed. Major tributary rivers included in the Willamette watershed recovery plan are the Clackamas, Molalla, North Santiam, South Santiam, Calapooia, McKenzie, and Middle Fork Willamette Rivers.

#### **Current Population Numbers**

 Currently, the total number of wild-origin and hatchery-origin salmon and steelhead returning to the Willamette River watershed to spawn is about 80,000 per year. For comparison, this is about 5% of the 1.6 million salmon and steelhead returning to the rest of the Columbia River watershed.

#### **BACKGROUND INFORMATION**

In the Willamette River watershed, about 75% of the returning salmon and steelhead are hatchery-origin fish and about 25% are wild-origin fish.

Scientists believe that, historically, over 1 million wild-origin salmon and steelhead returned to the Willamette watershed. Current wild-origin salmon and steelhead returns to the Willamette are about 20,000 fish per year. This is less than 5% of estimated historical wild returns. The combined effects of fish harvest, hatchery fish interactions, dams and flood control, and habitat alterations have led to these declines.

Declining abundance and reductions in habitat provided the scientific evidence for Willamette River Spring Chinook and Winter Steelhead to be listed as "Threatened" under the federal Endangered Species Act. These listings occurred in 1999.

#### Willamette Basin of Oregon

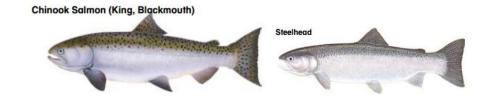




Willamette watershed boundary

#### Wild Fish Background

- Wild salmon and steelhead in the Willamette River watershed were listed as "Threatened" under the Endangered Species Act in 1999. These fish are called Spring Chinook and Winter Steelhead.
- "Threatened" means the populations are not self-sustaining. Chinook have a 60% to 100% chance of going extinct in the next 100 yrs.
- These wild salmon and steelhead <u>cannot</u> be harvested by recreational or commercial anglers in the Willamette watershed.
- There are other Threatened or Endangered fish in Oregon. Another well-known example is coastal Coho Salmon.
- There are other Willamette watershed fisheries, such as sturgeon, a wild and native fish.
   There are also non-native fish species that are self-sustaining in Oregon, such as large and smallmouth bass.
- There are other wild salmon and steelhead fisheries in Oregon, including Central Oregon, Eastern Oregon, and the Coast Range.
- There are other wild salmon and steelhead fisheries in Washington, Idaho, and California.



- Chinook Salmon (King, Blackmouth, Tyee) average size is 10 15 lbs, and up to 135 lbs.
- Steelhead (steelhead trout, sea-run rainbow trout) average 8 11 lbs, and up to 40 lbs

#### Hatchery Fish Background

- As noted on page 3, fish hatcheries produce the majority of the salmon and steelhead that return to the Willamette River watershed. There are 33 fish hatcheries in Oregon, and 7 fish hatcheries in the Willamette River watershed. The primary reason for Oregon fish hatcheries is to replace losses in wild-origin fish.
- Hatchery fish can be harvested. They are marked with a clipped fin so they can be
  distinguished from wild fish. Wild-origin salmon and steelhead, however, cannot be
  harvested in the Willamette watershed. Anglers who are mainly interested in harvest
  therefore prefer salmon and steelhead from hatcheries.
- Almost none of the salmon sold in Oregon stores and restaurants comes from the Willamette watershed since it is such a small percentage of the West Coast salmon fishery.
- Hatcheries are not the same thing as privately or corporation-owned 'fish farms'.
   Hatcheries release fish into the wild, but farmed fish are bred and harvested in captivity.
- Hatchery fish can crowd wild fish out of their habitat, so fish managers reduce impacts
  on wild fish by releasing hatchery fish at times of the year and locations that minimize
  interactions with wild fish.



Hatchery spring Chinook salmon at Willamette hatchery in Oakridge, Oregon

## THIS SURVEY WILL ASK YOU TO MAKE CHOICES ABOUT WILLAMETTE WILD SALMON & STEELHEAD RECOVERY

- Recovery would mean the wild populations would be self-sustaining. There would no longer be a significant risk of extinction in the next 100 years for wild Willamette watershed salmon and steelhead.
- There is currently no legal harvest of wild-origin salmon and steelhead in the Willamette watershed, so these wild fish tend to be important to people who like the idea of fish populations being self-sustaining.
- Hatchery fish are important to recreational anglers who want the opportunity to keep fish they have caught. The voting questions do not consider any changes to hatcheries.

	ling this survey were you aware that the salmon and steelhead in the tershed were considered "Threatened" under the Endangered Species Act?
☐ Yes	□ No
2. Before read salmon and ste	ling this survey were you aware that the state of Oregon has hatcheries for eelhead?
☐ Yes	□ No
	ling this survey were you aware that most of the salmon and steelhead in the stershed are hatchery-origin fish?
☐ Yes	□ No
4. Do you regu	ularly purchase an Oregon state fishing license?
☐ Yes	□ No
5. Does anybo	dy else in your household regularly purchase an Oregon state fishing license?
☐ Yes	□ No

#### Paying for Programs to Recover Wild Salmon and Steelhead

Recovering spring Chinook and steelhead populations – and maintaining this recovery into the future – requires a range of management strategies. Recovery programs being considered would improve ecological conditions for salmon and steelhead.

People can aid salmon and steelhead recovery with good stewardship of land, using water wisely, and implementing restoration projects to improve habitat conditions. All of these cost money. The funding would come from a new permanent tax. This tax would be a shared responsibility paid by all Oregonians. Money collected from the tax would be used to implement programs that address the primary threats to fish recovery. Recovery programs would be a collaborative effort between local, state, and federal organizations.

#### What additional recovery programs would do:

Improve conditions of the Willamette Basin for salmon and steelhead recovery. The specific types of improvements will depend on the design of the program. Example activities include:

- Retrofit dams to allow fish to swim past them, using devices such as fish ladders.
- Collect returning fish in holding ponds below dams and truck them above the dam.
- Restoring floodplains and reconnecting side channels and wetlands.
- Increasing stream flow by changing the schedule of water releases from dams.
- Improving water quality by reducing pollution from urban and agricultural areas.
- Removing or replacing culverts and other structures that block fish passage.

#### What additional recovery programs would <u>not</u> do:

- Affect salmon and steelhead populations <u>outside</u> the Willamette Basin.
- Have a noticeable effect on the quality or price of seafood you buy.

#### Willamette Wild Salmon and Steelhead Recovery Options

#### No Intervention

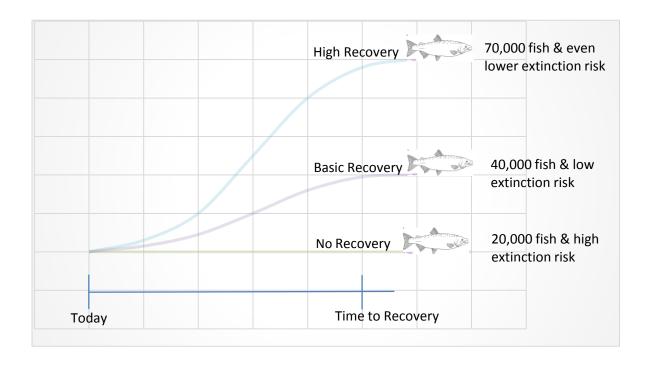
- Willamette Spring Chinook and Winter Steelhead are both currently listed as "Threatened" species. The risk of Spring Chinook going extinct in the next 100 years would remain between 60% and 100%.
- Estimated returns currently total about <u>20,000</u> fish per year.
- Catch-and-release fishing in the appropriate season, but wild fish may <u>not</u> be kept.

#### **Basic Recovery**

- This option would <u>use tools listed on page 7</u> to create the conditions for more wild fish to reproduce on their own. Willamette Spring Chinook and Winter Steelhead would no longer be a "Threatened" species and there would not be a significant risk of them going extinct in the next 100 years.
- Estimated returns would be about 40,000 fish per year.
- Catch-and-release fishing in the appropriate season, but wild fish may <u>not</u> be kept.

#### **High Recovery**

- This option would <u>more intensively use the tools listed on page 7</u> to create the conditions for more wild fish to reproduce on their own. Willamette Spring Chinook and Winter Steelhead would no longer be a "Threatened" species and there would not be a significant risk of them going extinct in the next 100 years.
- Estimated returns would be about <u>70,000</u> fish per year.
- Catch-and-release fishing in the appropriate season, but wild fish may <u>not</u> be kept.



#### **Time to Recovery Options**

Wild fish populations *can recover sooner* if the management tools listed on page 7 are used more intensively. However, more intensive use of these tools is also more expensive.

- If you select "No Intervention" there is no "time to recovery".
- If you select an intervention, different proposed interventions have different times to recovery:
  - o 15 years
  - o 25 years
  - o 50 years

The next question helps us understand your priorities for public issues. As a society, we cannot afford to fix all policy problems, so we have to decide upon priorities.

	Very High Priority	High priority	Low priority	Not a priority at all	Not sure
National security					
Reducing poverty and hunger					
Improving education					
Improving food safety					
Protecting endangered species					
Reducing unemployment					
Reducing violent crime					
Improving drinking water safety					
Improving health care					
Improving air quality					
Preventing climate change					
	Very High Priority	High priority	Low priority	Not a priority at all	Not sure

## What do you think should be done about salmon and steelhead management?

In a moment, you will be asked about which alternatives you think are the best. Public officials will take the results of this survey into account when they choose among wild salmon and steelhead management options.

#### **Important instructions**

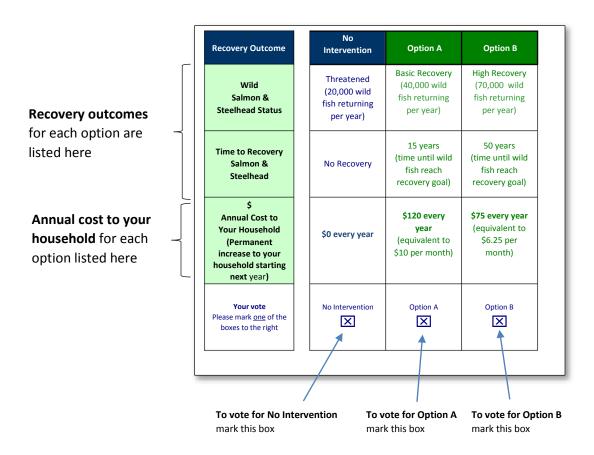
- In the questions that follow, we ask your opinion about different options for managing wild salmon and steelhead in the Willamette watershed.
- You will be asked three voting questions. In each question, you will vote for the option you like best from the three alternatives.
- Choosing the <u>No Intervention</u> option keeps the current conditions but does not add new restoration activities.
- Option A and Option B are different in each question, with different outcomes and costs to your household.

An example question is shown on the next page.

Experience from other studies has shown that people tend to respond differently in a survey than they would in real life, since they don't actually have to follow through with their choices. When voting we urge you to answer the questions as if you were really faced with these decisions and the costs to your household would really go up if the management options were implemented.

## An Example Question

In each question, you will be asked to vote on three options. (Mark one box at the bottom of each question to indicate which option you prefer.)



#### When you vote on the next three questions, please remember:

- Consider each question separately. Imagine that the options in that question are the only options available to choose from.
- Recovery options will not change restrictions on harvesting the restored wild salmon and steelhead populations.
- The recovery outcomes in each question are based on the best scientific predictions available.

**7. Please vote for one of the three options below**. (Mark one box at the bottom to indicate which option you prefer).

Recovery Outcome	No Intervention	Option A	Option B		
Wild Salmon & Steelhead Status	Threatened (20,000 wild fish returning per year)	Basic Recovery (40,000 wild fish returning per year)	High Recovery (70,000 wild fish returning per year)		
Time to Recovery Salmon & Steelhead	No Recovery	50 years (time until wild fish reach recovery goal)	50 years (time until wild fish reach recovery goal)		
\$ Annual Cost To Your Household (Permanent increase to your household starting next year)	\$0 every year	\$40 every year (equivalent to \$3.33 per month)	\$75 every year (equivalent to \$6.25 per month)		
Your Vote Please mark <u>one</u> of the boxes to the right	No Intervention	Option A	Option B		

		•			•					e of 0 to this s	o <b>10, where 0 is</b> cale.
0	1	2	3	4	5	6	7	8	9	10	
/ery ıncertaiı	n									Very certai	n

**9. Please vote for one of the three options below**. (Mark one box at the bottom to indicate which option you prefer).

Recovery Outcome	No Intervention	Option A	Option B
Wild Salmon & Steelhead Status	Threatened (20,000 wild fish returning per year)	Basic Recovery (40,000 wild fish returning per year)	High Recovery (70,000 wild fish returning per year)
Time to Recovery Salmon & Steelhead	No Recovery	50 years (time until wild fish reach recovery goal)	50 years (time until wild fish reach recovery goal)
\$ Annual Cost To Your Household (Permanent increase to your household starting next year)	\$0 every year	\$40 every year (equivalent to \$3.33 per month)	\$75 every year (equivalent to \$6.25 per month)
Your Vote Please mark one of the boxes to the right	No Intervention	Option A	Option B

10. Ho "Very ı				•		•						to 10, where 0 is cale.
	0	1	2	3	4	5	6	7	8	9	10	
	Very uncerta	ain									Very certai	n

**11.** Please vote for one of the three options below. (Mark one box at the bottom to indicate which option you prefer).

Recovery Outcome	No Intervention	Option A	Option B
Wild Salmon & Steelhead Status	Threatened (20,000 wild fish returning per year)	Basic Recovery (40,000 wild fish returning per year)	High Recovery (70,000 wild fish returning per year)
Time to Recovery Salmon & Steelhead	No Recovery	50 years (time until wild fish reach recovery goal)	50 years (time until wild fish reach recovery goal)
\$ Annual Cost To Your Household (Permanent increase to your household starting next year)	\$0 every year	\$40 every year (equivalent to \$3.33 per month)	\$75 every year (equivalent to \$6.25 per month)
Your Vote Please mark <u>one</u> of the boxes to the right	No Intervention	Option A	Option B

										l <b>le of 0</b> n this so	to 10, where 0 is cale.
0	1	2	3	4	5	6	7	8	9	10	
/ery ıncertai	n									Very certai	'n

# **13.** Thinking about the choices you made in the previous voting questions, how much do you agree or disagree that the following statements? (Please circle <u>one number</u> for each statement.)

	Strongly Disagree		Neutral		Strongly Agree
My choices would have been different if the	1	2	3	4	5
economy in my area were better.					
It is important to restore Willamette basin	1	2	3	4	5
salmon and steelhead, no matter how much	it				
costs.					
The descriptions in the recovery plan were	1	2	3	4	5
hard to understand.					
Salmon and steelhead recovery is important,	. 1	2	3	4	5
but I do not believe that the recovery option	S				
will actually increase the number of fish as					
described.					
Recovery options were not worth their costs	1	2	3	4	5
to my household.					
The changes offered by the plans happen too	1	2	3	4	5
far into the future for me to really care.					
Recovery program should be paid by	1	2	3	4	5
commercial and recreational anglers rather					
than by all Oregon residents.					
Salmon and steelhead recovery is not that	1	2	3	4	5
important to me					
Environmental conditions besides fish were	1	2	3	4	5
important factors in my decision.					
Somebody else should pay	1	2	3	4	5

# 14. To what extent do you believe that the results of this survey, based on your answers and the answers of other respondents, will be taken into consideration by policy makers? (Please circle one number.)

Definitely <u>not</u> taken in account		Unsure		Definitely taken into account
1	2	3	4	5

**15.** Thinking about the choices you made in the previous voting questions, how much do you *agree or disagree* with the following statements? (Please circle <u>one number</u> for each statement.)

,	Strongly Disagree		Neutral		Strongly Agree
I chose as if my household would actually face the costs shown in the questions.	e 1	2	3	4	5
I voted for a recovery plan option because I thought it would increase the chances that the government would do the same thing in rivers basins closer to my home.	1	2	3	4	5
It is important to restore wild salmon and steelhead no matter how much it costs.	1	2	3	4	5
I should not have to pay for wild salmon and steelhead recovery.	1	2	3	4	5
I voted for a recovery plan option more for future generations than myself.	1	2	3	4	5
Recovery should be funded with existing taxes.	1	2	3	4	5
I prefer to make a voluntary donation than to increase taxes.	1	2	3	4	5
I cannot afford to help pay for these program	s 1	2	3	4	5
I think wild salmon and steelhead recovery would happen too far in the future to be worthwhile.	1	2	3	4	5
The government should be involved in regulating the activities of people and businesses, in order to protect or improve the environment.	1	2	3	4	5
Background information in the survey was fai and unbiased.	r 1	2	3	4	5

## Questions about your activities on lakes, rivers, and streams in the Willamette basin

The following questions will ask you about <u>single-day</u> trips you have taken to visit a lake, river, or stream in the Willamette basin. By <u>single-day</u> trips, we mean visits where you traveled at least <u>15 minutes from home</u>, but did not spend the night away. This includes short trips within your community, and longer trips that take several hours or an entire day.

16. In the last 12 months, how many single-day trips did you take to visit a lake, stream, or

river in the Willamette basin for recreational purposes?

			2	If	more than 4, write in	
0	1	2	3	4	number of trips:	trips I took in the past 12 months
nths, w	hich sit	e did y	you vis	sit most o	ten? (Fill in as much	Villamette basin in the last 1 information as you can).
17b. Ho	ow long	g did it	take	you to dri	ve there from your h	ome?
	ho	ours ar	nd	m	inutes	
	hat is t	he nea	arest t	own to th	at site?	
17c. W					s) to that site? (Check	
17d. W	<b>hat did</b> sits)	l you α	lo on y	our visit(	if to that site: (Check	all activities you did on you
<b>17d. W</b> vis		l you c	lo on y	our visit(		
<b>17d. W</b> vis	sits) Fishing			<b>rour visit(</b> r kayaking	□ Sv	all activities you did on your with a state of the wark was moving or playing in the wark mping
17d. W vis	sits) Fishing	g, cano			□ Sv	rimming or playing in the wa

18. On these single-day trips in the last 12 m	onths, who normally went with you?
<ul><li>□ No one, I usually went alone</li><li>□ 1 or more other adults, but no chi</li><li>□ 1 or more other people, including</li></ul>	
19. In the past 12 months, which of the following check all that you have visited and write in the An example 区 2 Blue River Lake	wing lakes, rivers, or streams did you visit? (Please e number of visits in the past 12 months).
□Willamette River within Portland □Coast Fork Willamette □Tualtin River □North Fork Yamhill River □North Santiam River □Calapooia River □Long Tom River □Long Tom River □Breitenbush River □Quartzville Creek □Hills Creek □Detroit Lake □Dexter Lake □Fall Creek □Foster Lake	□Willamette River outside of Portland □Middle Fork Willamette □McKenzie River □South Fork Yamhill □Clackamas River □South Santiam River □Mary's River □Luckiamute River □
☐Foster Lake ☐Hills Creek Lake ☐Big Cliff Lake ☐North Fork Lake (Clackamas) ☐Lookout Point Lake	☐Green Peter Lake ☐Blue River Lake ☐Leaburg Lake ☐Cottage Grove Lake ☐Other

\_\_\_\_\_Other \_\_\_\_\_

\_\_\_\_\_Other \_\_\_\_\_

## The Next Questions Ask You About Your Views On Hatchery-origin and Wild-origin Salmon and Steelhead in the Willamette Basin

It is possible that a large reduction in the number of hatchery salmon and steelhead in the Willamette watershed might be required to meet wild salmon and steelhead recovery goals. These reductions may be needed to reduce competition between hatchery and wild fish for resources and habitat. Reductions in the number of hatchery fish in the Willamette watershed would mean fewer salmon and steelhead available for recreational anglers to catch and bring home.

# 20. Would your household support a large reduction in hatchery salmon and steelhead in the Willamette watershed if it would help to achieve wild salmon and steelhead recovery? (Please circle one number.)

Definitely would <u>not</u> support	ould <u>not</u> Unsure		Definitely would support	
1	2	3	4	5

## **21.** How much do you *agree or disagree* with the following statements about wild-origin and hatchery-origin salmon and steelhead? (Please circle <u>one number</u> for each statement.)

	Strongly Disagree		Neutral		Strongly Agree
A wild-origin fish population is more valuable to me than a population of hatchery fish because its presence indicates a well-functioning, healthy watershed.	1	2	3	4	5
Oregon salmon and steelhead populations need to be managed so they support harvest.	1	2	3	4	5
The recreation opportunity provided by hatchery-origin fish is more important than having sustainable wild, but not harvestable populations.	1	2	3	4	5

## About you and your household

To finish, we have some questions about you for statistical purposes only. Please be assured that all of your answers will remain completely confidential. We ask these questions so that we can determine how the socio

22: What is your sex?   Male	: What is your sex?			
23: What is your age? y	ears old			
24: How many children under age 18 are living in your home? children				
25: Does anyone in your household belong to an environmental organization (such as the Sierra Club, or National Audubon Society)?				
☐ Yes	□ No □	l Don't Know		
26: In 2013, what was your total pre- in your household?	tax household in	come, including all earners		
☐ Under \$25,000	☐ Under \$25,000 ☐ \$100,000 to \$149,999			
□ \$25,000 to \$49,999 □ \$150,000 to \$199,999				
□ \$50,000 to \$74,999				
□ \$75,000 to \$99,999	·			
Note: Please answer BOTH Questions 24 about Hispanic origin and Question 25. For this survey, Hispanic origins are not races.  27: Are you of Hispanic, Latino, or Spanish origin?:  □ Yes □ No □ I prefer not to answer				
28. What is your race? (You may select more than one.)				
☐ American Indian or Alaska Native☐ Black or African American☐ Native Hawaiian or Other Pacific Islander☐ Black/African American		☐ Asian Indian ☐ White ☐ Asian ☐ Some other race		

29.	What is the highest degree or level of scho	ol you have completed?
	☐ Less than high school	☐ Associate's degree
	☐ High school or GED	☐ Bachelor's degree
	☐ Some college (1-4 years, no degree)	☐ Graduate degree
	Have you or any member of your househo	•
indu	ustries or jobs? (Please check all that apply)	
	☐ Commercial fishing	☐ Electric power generation
	☐ Farming ☐ Commercial timber	
	☐ Dam operations	☐ River or fishing guiding
		ld are better off, just about the same, or worse
off f	inancially <u>than you were a year ago</u> ?	
	☐ We are better off	
	$\square$ We are just about the same	
	☐ We are worse off	
		om now you and your family will be financially
bett	ter off, just about the same, or worse off fi	nically?
	☐ We will be better off	
	☐ We will be just about the same	
	☐ We will be worse off	
	Thank you! Von house	s completed the curvey
	-	completed the survey. provided postage-paid envelope.
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# Thank you again for providing us with your views. Your input is very important. If you have any additional thoughts or comments about any of the topics or the survey itself, please share them here.

If you have any questions, please call 541-754-4703 or email papenfus.michael@epa.gov

The public reporting and recordkeeping burden for this collection of information is estimated to average 30 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed survey to this address.