



Review of Existing Public Opinion Data on Oceans

by

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and
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for

The Ocean Project

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I. Introduction

As the The Ocean Project plans a major initiative to heighten public concern for the oceans, the Project has asked Belden Russonello & Stewart (BR&S), in collaboration with American Viewpoint, to locate, review, and analyze what is already known about public attitudes on the oceans. This report summarizes the main points of what we know about current public opinion, outlines those areas which need further inquiry, and presents a detailed look at the data.

We conducted a comprehensive search of public and private public opinion polls, and we obtained opinion polls from non-profit organizations and private survey organizations, as well as publicly-released polls archived at the Roper Center for Public Opinion Research (University of Connecticut at Storrs).¹ BR&S collected oceans-related polling questions from 1992 to present from the Roper Center, and American Viewpoint obtained Roper Center polls on oceans back to 1945.

For the purposes of planning how to move public opinion in 1999 and beyond, this review focuses on public opinion surveys from 1992 to present. Our review of data examined hundreds of questions on the environment, however we found a limited number of pertinent items asked directly about oceans. The findings and key tables of results included in this report are drawn mainly from national representative samples of the U.S. general public. Also included are findings from two intercept surveys: one of visitors to the National Museum of Natural History and one of visitors to the Monterey Bay Aquarium.

¹ The Roper Center is a non-profit archive, which houses the most complete database of publicly-available survey research findings.

II. Overview and Areas of Further Inquiry

A. Overview

We know from existing public opinion data that ocean conservation issues are not top of mind for most Americans and that the environmental issues which resonate best with the public are water, air, and toxic pollution. People are troubled more by pollution than other environmental concerns because it is tangible to them and they fear the direct harmful health effects of pollution on themselves and their families.

However, the data suggest potential for building public concern for the oceans. Americans already believe the condition of oceans is declining.

- More than half of the public rate the overall health of the oceans negatively.
- Six in ten believe that the condition of the oceans has gotten worse over the past few years.
- 85% say that the destruction of oceans represents a threat to our quality of life.
- Majorities also recognize that oceans provide food and rainfall, and control the world's climate. However, the data suggest that Americans would not think of these concerns unless presented with them.

Americans are not wholly ignorant of the functions that oceans serve, but they do not know enough to make oceans one of their environmental priorities. Unlike dealing with garbage, dirty air, and water pollution, at the moment the general condition of the oceans is not a personal issue for most Americans.

The existing data also suggest a number of points to keep in mind when communicating about oceans:

- Americans place the blame for the oceans' destruction in the hands of humans in general. They believe that oil spills, chemical run-off, and improperly treated sewer water, as well as the ways that private citizens' use water, all adversely affect the

health of the oceans. Less of a concern are overfishing, destruction of coral reefs, and overdevelopment of coastal areas.

- However, the public does not see individuals' actions as having a *large* impact on the health of the oceans.
- The data indicate that the public seeks to protect the oceans because of a strong sense of responsibility to future generations, a desire to protect human health, and a concern for the extinction of marine life.
- Americans are supportive of tougher government regulation to protect the oceans. In particular, majorities support the setting aside of specific areas near the coasts as protected sanctuaries.
- Americans place a high priority on aquariums' role of educating children about nature and preserving species.

B. Areas of Further Inquiry

The current public opinion data portray the oceans as a respected distant uncle, who is out of sight and out of mind of most Americans. When asked, they believe their uncle's health has been getting worse, that the family probably bears some blame, and they worry about the future. But, the real challenge is how to encourage Americans to stay in touch with oceans so that we can reverse the decline.

The SeaWeb study illuminates Americans' opinions on the condition of oceans and problem areas that could raise concerns. We will need to expand our understanding of what are the strongest facts and emotional messages to raise awareness. Following up on that study to guide a public education effort by aquariums, museums and other environmental actors will require an investigation of public opinion in the following areas:

1. *Explore Americans' personal connections to oceans.* We know the public recognizes many of the positive roles the oceans play, but we would benefit from a more in-depth look at all the connections, emphasizing the most personal. These connections will obviously be greater for people living on the coasts, but it will be essential to find such connections with those in other geographic regions. We should uncover key words, phrases, and facts that drive public concern for oceans. Focus groups will explore these connections and the survey will measure their relative importance.

2. ***What do we mean by oceans?*** We use the word oceans, but do all Americans think of the same image when they hear the term? Do Americans think differently about the Atlantic than the Pacific? What is the public hearing when we are saying “oceans?” Focus groups will provide an opportunity to clarify the meaning of oceans to people.
3. ***Document knowledge.*** Before designing communications on the oceans it will be helpful to know the level of knowledge that Americans hold about oceans. We have learned that Americans hold a number of misperceptions about the environment, from the 1998 Roper survey for the National Environmental and Training Foundation. One such misperception is that a majority (56%) of Americans believe the main cause of fish and wildlife entanglement is plastic six-pack rings, when the fact is that the main cause is abandoned fishing line left by anglers.² Gauging knowledge on a range of ocean facts and analyzing knowledge by level of concern will assist in forming a strategy for engaging the public. Our survey is the best place to test knowledge.
4. ***Importance of specific types of habitats and marine life.*** We know from existing data that the wasteful destruction of marine life in general is very upsetting to the public. We also know that the public is concerned about the loss of habitats. But we do not know which types of habitats or marine life will draw the most concern from the public. Focus groups are excellent for obtaining reactions to specific images.
5. ***Areas of scientific concern.*** There are probably a number of specific areas of scientific concern that members of the The Ocean Project believe the public needs to learn about oceans in order to build long term education and commitment. Our focus groups and survey will provide the opportunity to hear reactions to these areas, to determine where the public’s interest intersects with the scientists’ interests.
6. ***Exhibition topics.*** Focus groups will allow us to gauge reactions and level of interest in different types of aquarium and museum exhibition topics to raise the public concern for oceans.

² Source: Center for Marine Conservation

III. Findings

A. The Environment Lacks Urgency

Before considering public attitudes toward oceans, it may be instructive to reflect on how Americans perceive environmental issues fitting into their lives. The data over the past five years and earlier demonstrates that while Americans consistently endorse protecting the environment through government and individual action, the public holds a low sense of urgency for the environment compared to other issues.

Surveys that ask the public to prioritize issues for the country or the government consistently show the environment falling in the lower tier of priorities. Reducing crime, improving education, and protecting U.S. jobs are more critical issues for many Americans.

Priorities for the Country

Now I have a few questions about priorities for President (Bill) Clinton and the Congress this year. As I read from a list tell me if you think the item that I read should be a priority. Should ... be a top priority, important but lower priority, not too important, or should it not be done?

	Top priority	Lower priority	Not too imprtn	Not be done	DK
Improving the educational system	78%	17	3	2	*
1997	75%	20	3	2	*
Taking steps to make the Social Security system financially sound	71%	24	4	1	*
1997	75%	20	2	2	1
Reducing crime	71%	25	2	1	1
1997	70%	25	3	2	2
1994	78%	17	2	1	2
Taking steps to make the Medicare system financially sound	64%	31	3	1	1
1997	64%	31	3	1	1
Improving the job situation	54%	32	10	3	1
1997	66%	26	5	2	1
1994	64%	27	5	2	2
Reforming health care	62%	27	6	3	2
1997	56%	32	7	4	1
Dealing with the problems of poor and needy people	57%	34	6	2	1
1997	57%	35	6	2	*
Dealing with the problems of families with children	55%	30	9	4	2
Reducing federal income tax for the middle class	54%	33	8	3	2
1997	42%	38	10	8	2
1994	53%	32	9	3	3
Protecting the environment	53%	37	8	1	1
1997	54%	35	8	2	1
Dealing with the moral breakdown in the country	48%	31	13	6	2
1997	52%	29	10	6	3
Paying off the national debt	46%	40	9	3	2
Working to reduce racial tensions	41%	38	13	7	1
1997	50%	34	9	5	2
Cutting the capital gains tax	25%	40	20	7	8
1997	29%	38	17	8	8
1994	27%	38	16	7	12

Princeton Survey Research for Pew Center for The People & The Press, January 1998, N= 1218 adults

Priorities for the Country

First I'd like to read you some issues the country will be facing over the next few years. For each one please tell me how much of a priority it is for the country to address -- using a scale of 1 to 10 -- where 10 means something should have high priority and 1 means it should have the lowest priority. You may use any number from one to 10.

	Mean	% rating 10
Lowering crime rates	8.8	58%
Improving public education	8.7	55%
Cutting government spending	8.2	46%
Improving the health care system	8.2	43%
Improving the economy	8.4	42%
Protecting the environment	8.0	38%

Belden & Russonello and R/S/M, March 1996, N= 2005 adults

Most Important Problem Facing the Country

Using a scale of one to 10 where one means something is not a problem at all, and 10 means it is a very serious problem, please tell me how big a problem you think each of the following is for the United States right now:

	Mean	% rating 8-10
Crime	8.8	82%
Gun violence	8.3	72%
Government spending	8.3	71%
Cost of health care	7.6	59%
Our education system	7.4	54%
Poverty	7.2	49%
The economy	6.9	43%
Immigration	6.6	41%
Race relations	6.5	35%
Environmental threats	6.4	34%
Overconsumption of resources	6.4	34%

Belden & Russonello, R/S/M, and Mellman, Lazarus, & Lake, February 1994, N= 2080 voters

B. Oceans as a Priority

1. Ocean Destruction

The condition of the oceans is not a top of mind concern for most Americans. For many years, public opinion data have consistently shown air and water pollution to be the highest environmental concerns. When a CBS/New York Times 1997 national survey asked “Which environmental problem do you think is most important,” air (18%) and water (14%) pollution lead all other problems, followed by rainforests (8%), greenhouse effect (5%), toxic waste (3%), and many others. Oceans was mentioned as the most important problem by only one percent of Americans.

A national survey by The Mellman Group for SeaWeb in 1996 offered 11 different environmental problems, then asked which one “is the most important environmental problem facing this country?” Oceans placed eighth on the list, behind toxic waste, air and water pollution, dealing with household garbage, forests being destroyed. Oceans scored on a par with global warming and extinction of plant and animal species.

Oceans were understandably more on the minds of visitors to the Monterey Bay Aquarium’s Ocean Travelers exhibit in 1997. When asked about “conservation issues anywhere in the world,” these visitors were more likely to cite “oceans, bays, harbors, beaches or coastline” than “air pollution.”

Volunteered Most Important Environmental Problem

When people talk about protecting the 'environment' it can mean a lot of different things.
Which environmental problem do you think is most important?

Clean air/air pollution	18%
Water pollution	14
Wilderness/State Parks/deforestation/ rain forest	8
Pollution in general	6
Greenhouse effect/ozone layer	5
Both air and water pollution	4
Solid waste/landfill/garbage/lack of recycling	4
Chemical/toxic waste	3
Car exhaust	2
Fresh water, river pollution	2
Global warming	2
Preservation of natural resources	2
Animals	1
Factories	1
Garbage on the streets	1
Government involvement/policies	1
Human welfare	1
Nuclear waste/contamination	1
Oceans	1
Population	1
Acid rain	*
Education about the environment	*
Energy	*
Farmland	*
Mineral exploration	*
Nuclear power plants	*
Off-shore drilling	*
Over development	*
Pesticides	*
Radiation/fallout/testing	*
Strip mining	*
Water conservation	*
Everything	1
Other	2
Don't know/No answer	19

CBS News/*New York Times*, November 1997, N= 953 adults

Top Environmental Concerns

Which of the following do you think is the most important environmental problem facing this country? And which is the second?

	1st mention	2nd mention
Toxic and hazardous waste	18%	15%
Air pollution	17	14
Water pollution	13	13
Dealing with household garbage and waste	11	10
Forests being destroyed	10	7
Unsafe drinking water	7	7
Global warming	6	5
Oceans being destroyed	5	9
Plant and animals species becoming extinct	5	7
Excessive environmental regulation	4	4
Coastal habitats being destroyed	1	3
Something else	1	1
Don't know	2	3

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Visitor Descriptions of Biggest Conservation Problems

When you think of conservation issues anywhere in the world, where do you think the biggest problems are?

	Baseline	Phase 2
'Top of mind' perception of the location of conservation problems		
Mentioned local or U.S. problem only	19%	17%
Mentioned U.S. and far away problem	31%	40%
Mentioned far away problems only	31%	26%
Open-ended answers		
Rainforest	31%	28%
Anything mentioned in the U.S.	22%	17%
Oceans, bays, harbors, beaches, coastline	21%	28%
Air pollution, ozone	16%	11%
River, lakes, wetlands, water shortage	15%	10%
Development, industrial areas, developed countries	10%	15%
Trees, forests, destroying the land	10%	12%
Europe (especially Russia)	9%	10%
Overpopulation	8%	5%
Endangered species, wildlife, overfishing	7%	15%
3rd World, developing nations	7%	11%
Mexico, South American	7%	11%
Pollution	6%	10%
California	6%	5%
Garbage, trash, landfills, littering	6%	5%
Asia, China, Japan	5%	11%
Oil spills, offshore drilling	5%	4%
Everywhere, worldwide	4%	3%
Africa	3%	7%
Greedy, stupid, uneducated people	3%	4%
Energy resources, oil, nuclear	3%	6%
"in our own backyard"	2%	3%
Other answers	5%	7%
Don't know, blank	2%	1%

People, Place & Design Research for The Monterey Bay Aquarium, April 1997, Baseline N= 458 visitors before the opening of Ocean Travelers exhibit, Phase 2 N= 405 visitors to the aquarium after the opening of Ocean Travelers exhibit

2. *Personal importance and connection to the oceans*

While Americans do not consider oceans a top tier environmental concern, a large majority describes oceans as personally important to them: 49% say that the oceans are “very important” and an additional 31% say that oceans are somewhat important to them personally in the Mellman polls for SeaWeb. The importance of the oceans is stronger among residents of coastal communities, where 60% say the condition of the oceans is very important to them. Importance rises further among coastal residents who consider themselves environmentalists (73% very important).

Personal Importance of the Oceans

How important is the condition of the ocean to you personally -- is it very important, somewhat important, not too important, or not at all important, or haven't you thought much about this?

	1997	1996	Coastal Communities
Very important	49%	49%	64%
Somewhat important	31	38	29
Not too important	5	7	5
Not at all important	1	2	1
Don't know	15	4	1

The Mellman Group for SeaWeb, August 1997, N= 1014 adults, June 1996, N= 1300, Coastal Communities N= 400 adults

Personal Importance of the Oceans

How important is the condition of the ocean to you personally -- is it very important, somewhat important, not too important, or not at all important, or haven't you thought much about this?

	% saying very important
Residents of coastal community who also call themselves environmentalists	73%
Those who call themselves environmentalists from the non-coastal areas	61%
Residents of coastal community	60%
Those who do not call themselves environmentalists from non-coastal areas	45%

The Mellman Group for SeaWeb, June 1996, N=1300 adults

There is a high level of positive association with the oceans, as well as a general recognition of oceans' role in providing food and resources, in regulating climate, and in sustaining biological diversity.

Majorities of Americans believe the oceans play a very important role in providing protein for people around the world (71% very important), providing rainfall (69%), and controlling the world's climate (67%).

When visitors to the National Museum of Natural History's oceans exhibit were asked (1996 survey) "how, if at all, oceans affect your daily life," the most commonly mentioned impact was food, mentioned by 43%. The next most perceived impact was recreation or entertainment (28%), followed by a recognition of the oceans' role in weather and climate (17%). About one in six visitors (16%) said the oceans did not affect their daily lives.

Large majorities of the general public connect the oceans with a number of positive words and phrases: beautiful, full of many types of plants and animal species, three-fourths of the earth's surface, powerful, vast, provider of important resources, and mysterious. To a much lesser extent, the public associates "clean" with the oceans.

Role of the Oceans

How important a role do you think the oceans play in each of the following areas -- Do the oceans play a very important role in that area, somewhat important, not too important or are the oceans not important at all in that area. If you are not sure about a particular item, please say so and we will go on.

	Very imptnt	Smwht imptnt	Not too imptnt	Not at all imptnt	DK
Providing food protein for the people all over the world	71%	22	2	1	4
Providing rainfall	69%	19	3	1	8
Controlling the world's climate	67%	21	3	1	8

The Mellman Group for SeaWeb, August 1997, N= 1014 adults

Terms and Phrases Describing Oceans

I'd like to get your feelings on words and phrases which people use to describe the ocean. After each please tell me how well you think that word or phrase describes the ocean, using a scale that goes from zero to one hundred, zero means it does not describe the ocean at all and 100 means it describes the ocean perfectly. You can use any number from 0 to 100. The higher the number, the more you think the word or phrase describes the ocean. If you aren't sure how that word or phrase describes the ocean please say so and we will go on.

	Average score
Beautiful	90
Full of many types of plants and animal species	89
Three-fourths of the earth's surface	89
Powerful	88
Vast	87
Provider of important resources	84
Mysterious	84
Controls the earth's climate	78
Sources of recreation	78
Facing danger**	76
Contains over 90% of life on earth	75
Our planet's last frontier	75
Can be the source of medicines to cure diseases	74
Serene	71
In danger of being destroyed**	70
Depleted of important resources like fish and seafood	68
Polluted	65
Cleans and regenerates itself	63
Frightening	60
Clean	47

The Mellman Group for SeaWeb, June 1996, N= 1300 adults, except **= split sample

How oceans affect visitors' lives

Can you describe how, if at all, oceans affect your daily life?

	Total
Products/Extraction:	51%
Food	43
Products, not elsewhere classified	9
Medicines	4
Economy and resources	3
Occupation	3
Chemicals and minerals	1
Oil/energy	1
Use:	41%
Recreation/Entertainment	28
Lifestyle	14
Transportation	5
Education	1
Ecosystem:	31%
Weather and climate	17
Hydrologic system	7
Ecosystem, not elsewhere classified	5
Sea life	4
Oxygen	2
Tides and current	1
Size of oceans	*
Does not affect life:	16%
No, geography	14
No, other reason	2
Conservation:	7%
Human actions/pollution	5
Conservation of ocean life	2
Aesthetics/Beauty:	3%
Other	3%
Everything	3%
Don't know	6%

The National Museum of Natural History, May 1996, N= 978 visitors to museum (entrance N= 406 visitors to the exhibit, exit N= 572 visitors to the exhibit)

C. The Condition of the Oceans

1. Condition is worsening

Americans recognize that the health of the oceans is on the decline. Six in ten (60%) believe the condition of the oceans has gotten worse over the past few years, according to the 1997 Sea Web poll. Only one in five (20%) Americans characterize the condition of the oceans as good, and only one percent says excellent. A plurality of respondents (42%) characterizes the quality of the oceans as “only fair.”

Oceans Getting Worse

And what about the condition of our oceans. Over the past few years, do you think the condition of our oceans has gotten better, stayed about the same, or gotten worse?

	1997	1996
Better	11%	6%
Same	25	24
Worse	60	58
Don't know	4	12

The Mellman Group for SeaWeb, August 1997, N=1014 adults, June 1996, N= 1300 adults

Oceans Not in Good Health

Now, thinking about the overall health and quality of the oceans today -- would you rate them as excellent, good, only fair, or poor, or don't you have an opinion on this?

	1997	1996
Excellent	1%	*
Good	20	20%
Only Fair	42	52
Poor	17	15
Don't know	20	12

The Mellman Group for SeaWeb, August 1997, N=1014 adults, June 1996, N= 1300 adults

2. *Awareness of threats and indicators that the oceans are in trouble*

The destruction of the oceans is perceived by a majority of Americans to be a “very serious” threat to quality of life today, and a larger majority sees it as a threat to quality of life 10 years from now.

Visitors to the Monterey Bay Aquarium in 1997 demonstrated general awareness of the threats to whale habitats and the danger that plastic poses to sea turtles. A small majority of visitors also voiced awareness of oil run-off from land ending up in the ocean. Visitors were far less aware of the toll that heavy fishing has had on bluefin tuna in the Atlantic.

Building upon and reinforcing, the recognition of the oceans’ critical functions and importance to human life may be a central part of a communications campaign to raise awareness about ocean degradation.

Ocean Destruction Threatens Quality of Life

Today: Generally speaking, how serious of a threat do you think the destruction of the oceans is to the quality of life today, very serious, somewhat serious, not too serious, or not serious at all -- or don't you have an opinion on this?

In 10 years: Ten years from now, how serious of a threat do you think the destruction of the oceans will be to the quality of life, very serious, somewhat serious, not too serious, or not serious at all -- or don't you have an opinion on this?

	*1997 Today	**1996 Today	*10 years from now
Very serious	53%	52%	63%
Somewhat serious	32	35	23
Not too serious	5	7	6
Not serious at all	1	1	1
Don't know	9	5	7

The Mellman Group for SeaWeb, **June 1996, N= 1300 adults and *August 1997 N= 1014 adults

**Visitors' Knowledge of Four Ocean Facts
Before and After the Ocean Travelers Exhibit**
% saying "Yes"

Tell me which of these facts you're aware of -- just say Yes or No:

	<u>Baseline</u>	<u>Phase 2</u>			
	Total	Total	Saw no exhibits	Saw 1-2 exhibits	Saw 3-5 exhibits
Though most whaling has stopped, whales still need their habitat protected.	84%	89%	84%	85%	97%
Sea turtles eat plastic that looks like their favorite food, jellyfish, and they die from it.	54%	62%	55%	55%	76%
A lot of the oil that ends up in the ocean actually runs off from land.	51%	65%	63%	60%	73%
In the Atlantic, heavy fishing has caused the bluefin tuna catch to drop by 90% since 1970.	27%	42%	32%	41%	54%

People, Place & Design Research for The Monterey Bay Aquarium, April 1997, Baseline N= 458 visitors before the opening of Ocean Travelers exhibit, Phase 2 N= 405 visitors to the aquarium after the opening of Ocean Travelers exhibit

Statements in the SeaWeb survey that best exemplify to the American public that the oceans are in a “great deal” of trouble pertain to oil spills, extinction of fish species, beach closings due to pollution, and damage to marine animal populations. Somewhat less urgent indications of oceans’ troubles involve overdevelopment of coastal areas, government warnings of seafood contamination, and projections of future coral reef damage.

For the most part, the statements about oceans with the broadest implications of trouble correspond to statements that are most likely to make the public angry. One exception is a statement about cruelty and waste: “People are cutting the fins off living sharks and then throwing the sharks back in the water to die.” This statement ranks fifth (out of a series of 9) as an indication of trouble but first as a statement that makes Americans “extremely angry.”

Indicators that the Oceans Are in Trouble

Please tell me whether this statement makes you think the ocean is in trouble or doesn't say much about the condition of the ocean...

	Great deal	Some	Not too much	Not at all	Doesn't say much	DK
Approximately 3.25 million tons of oil enter the oceans of the world each year	71%	20	3	1	1	4
Chronic overfishing of the ocean has led to the commercial extinction of 14 of the most valuable species of fish. Seventeen of the world's major fishing areas have already been fished to their limits	61%	26	4	1	1	5
U.S. beaches have been closed or had advisories issued against swimming over 5000 times this decade because of pollution in the ocean	60%	30	4	1	1	4
Marine animals like whales, dolphins, sea lions and sharks are being destroyed	58%	32	5	1	1	2
People are cutting the fins off living sharks and then throwing the sharks back in the water to die	56%	26	6	2	3	6
Because more than one half of the world's population lives close to the coastline, so much development is being done along the coast that our coastal habitat is being destroyed	52%	37	7	1	1	3
State and federal governments have been forced to issue hundreds of seafood contamination warnings over the last several years	52%	36	4	1	2	4
Some thirty percent of existing coral reefs will die in the next 20 years	50%	34	5	2	3	5
In the last 20 years, an estimated 50 percent of the world's mangrove forests have been lost due to shrimp farming	38%	37	5	2	3	14

The Mellman Group for SeaWeb, June 1996, N= 650 adults

Statements About the Oceans Make You Angry

Please tell me how angry this statement makes you -- does it make you extremely angry, very angry, somewhat angry, not too angry, or not angry at all? If you are not sure, please say so and we will go on.

	Extrmly angry	Very angry	Smwht angry	Not too angry	Not angry at all	DK
People are cutting the fins off living sharks and then throwing the sharks back in the water to die	42%	41	10	3	2	3
Approximately 3.25 million tons of oil enter the oceans of the world each year	40%	43	11	3	1	2
Marine animals like whales, dolphins, sea lions and sharks are being destroyed	29%	47	17	3	2	2
U.S. beaches have been closed or had advisories issued against swimming over 5000 times this decade because of pollution in the ocean	24%	44	21	5	3	3
Chronic overfishing of the ocean has led to the commercial extinction of 14 of the most valuable species of fish. Seventeen of the world's major fishing areas have already been fished to their limits	23%	40	26	5	2	3
Because more than one half of the world's population lives close to the coastline, so much development is being done along the coast that our coastal habitat is being destroyed	18%	38	31	7	2	4
Some thirty percent of existing coral reefs will die in the next 20 years	17%	35	32	7	4	4
State and Federal governments have been forced to issue hundreds of seafood contamination warnings over the last several years	16%	36	27	7	8	6
In the last 20 years, an estimated 50 percent of the world's mangrove forests have been lost due to shrimp farming	14%	33	30	7	4	13

The Mellman Group for SeaWeb, June 1996, N= 650 adults

D. Role of Humans

1. *Human activity is damaging the oceans*

A large majority of Americans believes that human activity is a threat to the oceans and our quality of life, according to the SeaWeb polls. The public rejects the notion that the oceans are impermeable to human-caused conditions, such as pollution, over-fishing, and run-off from streets and sewers.

Of the ocean problems listed in the 1996 SeaWeb poll, the ones recognized as most serious by the public are oil spills and chemical run-off from corporate farms. The public also perceives contamination of seafood, non-farm run-off, depletion of marine mammals, and destruction of coastal habitats and of plant and animals life in the oceans as “very serious” problems. Problems considered less serious include overfishing, destruction of coral reefs, and overdevelopment of beaches.

In a survey of visitors to the National Museum of Natural History’s oceans exhibit in 1996, nine in ten visitors cited some type of pollution as the most serious problem affecting oceans. Exploitation of resources, such as overfishing, was mentioned far less by visitors.

While the public overwhelmingly believes that human activity contributes to the degradation of the oceans, it is less certain about *how much* of the blame for the oceans’ problems to place on the recreational boating and commercial fishing activities. For example, a majority (56%) of Americans believes that human recreational activity like boating and going to the beach causes damage to the oceans, but only 12% believe it causes a great deal of damage. Also, while 50% of Americans feel we are taking too much out of the oceans in the form of commercial fishing and oil drilling, an equivalent number either is uncertain (36%) or disagrees (14%).

Human Activity a Cause of Ocean Destruction

Which point of view comes closer to your own:

Split A	1996	Split B	1996
a. Oceans are so vast and plentiful, there is little humans can do to destroy them. The ocean can repair itself when damage is done.	11%	a. Oceans are so vast and plentiful, there is little humans can do to destroy them.	10%
b. Oceans threatened by human activity -- overfishing, destruction of coastal habitats, overdevelopment, & pollution are threatening our quality of life	81	b. The oceans are threatened by human activity.	82
Not sure	8	Not sure	8

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Effects of Pollution and Overfishing

Which point of view comes closest to your own?

Statement A: Pollution and overfishing have caused serious trouble for our oceans. Because the oceans provide oxygen, food and rainfall, human beings are also in trouble as a result of the oceans' problems.

Statement B: The oceans are vast and plentiful and able to repair themselves so they are not really in serious trouble. In addition, we get oxygen, food and rainfall from many different sources so problems with the oceans do not mean that humans are in trouble.

Statement A	72%
Statement B	8
Not sure	21

The Mellman Group for SeaWeb, August 1997, N= 1014 adults

Effects of Runoff

Which of the following comes closer to your own point of view?

Statement A: All water ends up in the ocean, so improperly treated sewage and chemical runoff from our streets and sewers as well as how we use water in our homes makes a real difference to the condition of the ocean.

Statement B: All the water that goes through our sewers is treated before being released and many parts of our country are far from the ocean, so what we do with the water in our homes and communities doesn't have much impact on the ocean.

Statement A	73%
Statement B	10
No opinion	17

The Mellman Group for SeaWeb, August 1997, N= 1014 adults

Ocean Problems

Please tell me whether you think this is a very serious problem, somewhat serious problem, not too serious problem, or not serious at all. If you are not sure how you feel about a particular item, please say so and we will go on.

	Very serious	Smwht serious	Not too serious	Not serious at all	DK
Oil spills in ocean	81%	15	3	1	*
Runoff of chemicals and pesticides from large corporate farms**	75%	18	4	1	3
Improperly treated sewer water from cities and towns near the coast running into the ocean	69%	23	4	1	3
Contamination of seafood	65%	28	4	1	2
Trash, oil, and chemical runoff from our streets	65%	27	5	1	2
Runoff of chemicals and pesticides from farms**	63%	26	7	2	2
Trash and litter being left on the beaches	62%	31	6	1	1
Improperly treated sewer water from your community running into the ocean	61%	24	7	4	3
Depletion of marine mammals like whales and sea lions**	60%	27	7	2	4
Destruction of ocean plants and animals that may contain cures for diseases	56%	29	7	1	7
Dolphins caught and killed in tuna nets	56%	31	8	2	4
Destruction of coastal habitat due to development	53%	33	8	1	4
Too much building and development along our coastlines and beaches	46%	35	13	3	3
Overfishing by commercial fishermen	45%	38	10	3	4
Deterioration of coral reefs	43%	38	8	2	9
Air pollution from cars and industry settling into the oceans	40%	38	12	3	7
Killing of sharks**	30%	42	18	3	7

The Mellman Group for SeaWeb, June 1996, N= 1300 adults, except **= split sample

Problems Oceans Face

What do you think are the most serious problems affecting oceans? Anything else?

	Total
Pollution	91%
General pollution, not elsewhere classified	39
Solid waste pollution	29
Oil pollution/Drilling	26
Chemical pollution	20
Sewage/Dumping	7
Non-point source pollution	2
Air pollution/Atmospheric changes	2
Exploitation of resources	30%
Fishing practices	26
Overuse/Exploitation	3
Overfishing	2
Human actions	23%
Human action	8
Human ignorance	4
Industrial activities	3
Overpopulation	3
Commercial activities	2
Government activities	1
Ecosystem destruction	1
Tourism	1
Development	1
Atomic testing	1
Extinction	6%
Extinction of animal species	3
Habitat loss	3
Loss of biodiversity	1
Ecosystem problem	4%
Global warming	2
Ozone hole	2
Other	3%
Other problems	3
Positive statement/progress	2
Don't know	1%

The National Museum of Natural History, May 1996, N= 978 visitors to the museum (entrance N= 406 visitors to the exhibit, exit N= 572 visitors to the exhibit)

Recreational Activity

From what you know today, would you say that human recreational activity like boating and going to the beach causes a great deal of damage to the oceans, some damage, only a little damage or no damage at all -- or don't you have an opinion on this?

Great deal	12%
Some	44
Only a little	25
None	10
Don't know/no opinion	9

The Mellman Group for SeaWeb, August 1997, N= 1014 adults

Uncertainty about Overfishing and Oil Drilling

As far as you know, are we taking too much out of the oceans today in the form of commercial fishing and oil drilling or are we not taking too much out of the oceans today, or aren't you sure about this? Do you feel that we (are/are not) taking too much out of the ocean strongly or not so strongly?

Strongly taking too much	43%
Not strongly taking too much	7
Not strongly NOT taking too much	9
Strongly NOT taking too much	5
Not sure/don't know	36

The Mellman Group for SeaWeb, August 1997, N= 1014 adults

2. *Offshore oil drilling and the environmental risk to oceans*

In addition to the threats to the oceans tested in the SeaWeb surveys, a few other surveys have asked the public about another threat to the oceans: offshore oil drilling. Overall, Americans hold mixed views on offshore oil drilling. A large majority (72%) believes it is possible to explore for, produce, and transport oil from coastal waters in an environmentally safe manner. However, Americans are less sure (45%) that oil companies do a good job of protecting the environment. A majority (54%) feels there needs to be stronger federal regulations over where and how oil companies drill for oil and gas.

In 1994, Americans were divided (45% favor-50% oppose) over whether or not the federal government should open up more coastal areas generally to oil drilling. A majority (54%) favored expanding offshore drilling as a way of dealing with an energy crisis; but when given a choice between expanded offshore drilling and increased oil imports, Americans showed no clear preference (44% increased imports, 48% expanded drilling).

Offshore Oil Drilling can be Environmentally Safe

To help reduce our dependence on foreign oil, new energy exploration efforts have moved to areas like coastal waters and the Arctic North Slope of Alaska. In general, do you think it is possible to explore for, produce, and transport oil and gas in these areas in an environmentally safe manner?

	1994	1992
Yes	72%	70%
No	20	21
Not sure	7	9

Cambridge Reports/Research International, 1994, March N= 1250 adults; March 1992, N= 1250 adults

Offshore Drillers Protecting the Environment?

Do you think that oil companies now developing oil offshore are doing a good job of protecting the environment, or not?

	1994	1992
Yes	45%	43%
No	37	37
Not sure	18	19

Cambridge Reports/Research International, March 1994, N= 1250 adults; March 1992, N= 1250 adults

Support for Stronger Regulation of Offshore Drillers

Do you think there is a need for stronger federal regulation and control over where and how the oil companies drill for offshore oil and gas, or are current regulations strong enough?

	1994	1992
Need for stronger federal regulations	54%	57%
Current regulations strong enough	35	30
Don't know	11	13

Cambridge Reports/Research International, March 1994, N= 1250 adults; March 1992, N= 1250 adults

Divided Over Expansion of Oil Drilling

The federal government said it wants to increase the number of places off the U.S. coast where oil companies can drill for oil and gas. Some people oppose this because they say the potential damage to the fishing and tourist industries is greater than the chance of finding significant amounts of oil and gas. Do you favor or oppose the idea of opening up more offshore areas for oil and natural gas exploration?

	1994	1992
Favor	45%	46%
Oppose	50	49
Don't know	5	4

Cambridge Reports/Research International, March 1994, N= 1250 adults; March 1992, N= 1250 adults

Expand Offshore Drilling to Deal with Energy Crisis

I'm going to read you several proposals for dealing with the energy crisis, and I'd like you to tell me whether you generally favor or oppose each one... Expanding offshore drilling for oil and natural gas.

	1994	1992
Favor	54%	52%
Oppose	38	42
Don't know	8	6

Cambridge Reports/Research International, March 1994, N= 1250 adults; March 1992, N= 1250 adults

Divided Over Expanding Offshore Drilling to Reduce Import Dependency

If it came down to a simple choice between increasing imports of foreign oil or expanding offshore drilling for oil and natural gas, which do you think the nation should choose?

	1994	1992
Increasing imports of foreign oil	44%	43%
Expanding offshore drilling	48	45
Don't know	8	12

Cambridge Reports/Research International, March 1994, N= 1250 adults; March 1992, N= 1250 adults

Although views on the need and impact of expanded offshore oil drilling may be mixed, the public's priorities are unmistakable when oil and gas exploration is pitted against environmental protection. Sizable majorities oppose offshore drilling for oil and gas if it harms the environment (72%) or causes pollution (69%).

Opposition to Offshore Drilling If It Harms the Environment

Now, I am going to read you several things the United States could do to reduce our dependence on foreign oil. As I read each one, please tell me whether you strongly favor, favor, oppose, or strongly oppose it as a method of reducing our dependence on foreign oil...Expanding offshore drilling for oil and natural gas, even if it damages the environment.

	1994	1992
Strongly favor	4%	4%
Favor	21%	20
Oppose	50	49
Strongly oppose	22	22
Don't know	3	4

Cambridge Reports/Research International, March 1994, N= 1250 adults; March 1992, N= 1250 adults

Opposition to Offshore Drilling if it Causes Pollution

Some people oppose offshore drilling for oil and gas because they fear pollution. Other people say the need for oil is so pressing that we should be willing to suffer an occasional oil spill in order to get more oil. If offshore drilling meant that a major spill would occur about once every 5 years, would you favor or oppose more offshore drilling?

	1994	1992
Favor	28%	24%
Oppose	69	72
Don't know	3	4

Cambridge Reports/Research International, March 1994, N= 1250 adults; March 1992, N= 1250 adults

Americans' environmental priorities also emerged in a 1995 survey which focused on attitudes toward exploration for oil and gas in Alaska's Arctic National Wildlife Refuge (ANWR). When survey respondents were told that ANWR was "home to migrating birds, polar bears, and caribou," a majority (58%) opposed allowing "private companies to drill for oil" there.

In the 1995 survey, Americans supported many reasons to protect ANWR from drilling, but the two strongest reasons among those offered: 1) made the case that 95% of Alaska's North Slope was open for oil exploration, so "why can't we protect just 5% of this unique wilderness," and 2) asserted that drilling activity will "have significant lasting impacts on the environment."

Opposition to Drilling in Arctic National Wildlife Refuge

The Arctic National Wildlife Refuge is a protected area on Alaska's coast that is home to migrating birds, polar bears, and caribou. There are also potential oil fields in this area under the Arctic refuge. Do you favor or oppose the federal government allowing private companies to drill for oil in the Arctic National Wildlife Refuge in Alaska, or don't you have an opinion on this issue?

Strongly favor allowing oil drilling	8%
Somewhat favor allowing oil drilling	14
Somewhat oppose allowing oil drilling	24
Strongly oppose allowing oil drilling	34
Don't know	21

Lake Research for the Wilderness Society, October 1995, N= 401 voters

Reasons to Protect the Arctic National Wildlife Refuge

I'm going to read you a few reasons that some people have given for why the Arctic National Wildlife Refuge in Alaska should be protected from new oil drilling. For each one I mention, please tell me if you consider it to be a very convincing reason, somewhat of a convincing reason, or not that convincing of a reason for protecting the Arctic National Wildlife Refuge.

	Very	Smwht	Not	DK
The Arctic National Wildlife Refuge represents only five percent of Alaska's North Slope coastal plain. Ninety-five percent of Alaska's coastal plain is available for oil exploration. Ninety-five percent should be enough for the big oil companies. Why can't we protect just five percent of this unique wilderness?	41%	32	16	10
Oil companies say they will drill in an environmentally sensitive manner, but there is no such thing as a pristine oil field. Drilling in the Arctic National Wildlife refuge will mean development, oil spills and roads that will permanently scar the last arctic wilderness area in the U.S. No matter how well done, oil exploration and development -- the drilling, the roads, and the accidents -- have significant and lasting impacts on the environment.	40%	33	16	11
There is only a 19% chance of finding a viable oil source in the Arctic National Wildlife Refuge and those odds are not worth the risk of destroying this precious resource. Even if an oil supply is discovered, scientists have predicted that just 1.8 billion barrels of oil will be extracted -- only enough to supply the nation for 90 days.	37%	31	19	13
The Arctic National Wildlife refuge is part of our American heritage and we must protect it for our kids' sake. Drilling for oil in the Arctic refuge is like strip mining in Yellowstone National Park, or building dams in the Grand Canyon -- it doesn't make sense.	35%	36	19	10
The Arctic National Wildlife Refuge is a pristine unique wilderness area -- there is no place like it in the entire U.S. It has been called a crown jewel which contains irreplaceable habitat and wildlife like caribou, polar bears, and snow geese. This is one of our last great wilderness areas and we should not allow oil drilling here.	33%	41%	14	12
Proponents of oil drilling in the Arctic National Wildlife Refuge say that they will use the tax revenues to reduce the deficit. Give us a break. These revenues would represent less than the cost of one and a half B-2 bombers. We should not jeopardize this unique wilderness area when we can do much more to cut waste in government.	29%	38	20	13
Supporters of oil drilling in the Arctic refuge talk about making the U.S. energy independent through new exploration, but the fact is at the same time they are pushing for new drilling they are also advocating for the repeal on the oil export ban that has brought Alaskan oil to the lower 48 states for the last 20 years. Big oil companies want to ruin the Arctic refuge so they can sell oil abroad in Japan and make a huge profit.	26%	34	22	17
Proponents of drilling in the Arctic National Wildlife Refuge say the revenue would be used to reduce the deficit, but the money would really be used to provide a tax break for Alaskans and an annual \$990 cash bonus for every Alaskan. We should not jeopardize part of our unique national heritage for a tax windfall for one state.	20%	39	28	13

Lake Research, conducted for the Wilderness Society, October 1995, N= 401 voters

3. *Responsibility and actions for protecting the oceans*

a. Responsibility of government and public

Given the high public recognition of oil spills, it may be no surprise that oil companies top the list of groups that the public believes have an important impact on the health of the oceans. The government, followed by big business, the commercial fishing industry, foreign governments, and environmental organizations round out the top of the list. The public perceives individuals (“people like you”) as having somewhat less of an impact on the oceans.

Although close to two-thirds of the public (64%) strongly agree that there is a connection between household water use and the condition of the oceans, they do not see individuals as having a great impact on the health of the oceans.

We do find broad support for more government action. Eighty-five percent of the public agree (65% strongly) that “the federal government needs to do more to help protect the oceans.” An even higher proportion (93%; 68% strongly) favors the U.S. helping to make the United Nations more effective in dealing with the pollution of the oceans. A smaller majority of Americans (72%; 37% strongly) favors the U.S. yielding authority to the United Nations when U.N. resolutions against ocean dumping are stronger than U.S. laws.

Specific Groups' Impact on the Oceans

Please tell me how important you think the action they take could be to the health of our oceans -- are their actions one of the most important, very important, somewhat important, not too important, or not at all important to the health of the ocean?

	One of the most imprtn	Very imprtn	Smwht imprtn	Not too imprtn	Not imprtn at all	DK
Oil companies	29%	50	12	4	3	1
U.S. government	25%	49	18	4	2	3
Environmental organizations	23%	50	20	3	1	2
Big business	19%	47	22	6	4	3
Commercial fishing industry	18%	50	23	4	3	2
Governments of foreign countries	16%	43	23	7	4	6
State government	14%	41	30	9	3	3
People like you	13%	40	31	10	4	2
The U.N.	13%	38	27	9	6	8
Real estate developers	11%	33	34	12	7	2
Recreational fishermen	9%	28	36	18	8	2
Farmers	8%	34	36	14	4	4

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Personal Water Use Affects the Oceans

Which of the following statements comes closer to your own point of view?

All water ends up in the ocean, so improperly treated sewage and chemical runoff from our streets and sewers as well as how we use water in our homes makes a real difference to the condition of the ocean.

Strongly agree	64%
Somewhat agree	11

All water that goes through our sewers is treated before being released and many parts of our country are far from the ocean, so what we do in our homes doesn't have much impact on the ocean.

Strongly agree	10
Somewhat agree	7
Don't know	8

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Government Intervention to Protect the Oceans

Please tell me whether you agree or disagree with the statement, "The federal government needs to do more to help protect the oceans." Is that (agree/disagree) strongly or not strongly?

Agree strongly	65%
Agree not strongly	20
Disagree not strongly	5
Disagree strongly	5
Don't know	5

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

U.S. Participation in United Nations Environmental Conference

Many of the major issues today were not thought about when the U.N. (United Nations) was founded fifty years ago, for example: environmental pollution, decreasing natural resources, over-population, over-crowded cities, mass migration, drug-trafficking, global finance, global manufacturing, and global marketing. Individual nations alone can not regulate these activities that cross national borders. Increasingly issues are thrown into the lap of the U.N. which it was never designed to handle. The UN can debate these forever, but it will not be able to do all the world wants done as it is now structured. As many have noted, the UN charter may have to be revised and operations re-structured for the UN to handle more of the world's problems. I am going to ask you whether you favor or oppose some ideas to do that. Would you favor or oppose that the US (United States) participates in a world conference where nations review the charter of the United Nations and propose amendments to make the UN more effective in global environmental issues, like the pollution of the oceans and the atmosphere? Is that strongly or somewhat favor/oppose?

Strongly favor	68%
Somewhat favor	25
Somewhat oppose	2
Strongly oppose	4
Don't know/no answer	1

Greenberg Research Inc for Americans Talk Issues Foundation, June 1994, N= 259 adults

United Nations Environmental Regulations

Here is a proposal that some people say would allow the U.N. to do a better job, and I want you to tell me whether you favor or oppose it. In order to protect and preserve the world's environment, United Nations resolutions on polluting the atmosphere and dumping toxic wastes in the ocean should have the force of law and rule over the actions and laws of individual countries with weaker environmental protection laws, even the laws of the United States when our environmental protection laws are weaker.

Strongly favor	37%
Somewhat favor	35
Somewhat oppose	12
Strongly oppose	14
Don't know/no answer	2

Market Strategies and Greenberg Research for Americans Talk Issues Foundation and the W. Alton Jones Foundation, March 1993, N= 1020 adults

b. Individual actions

The actions tested in the 1996 SeaWeb survey that people might take themselves to protect the oceans break down into three general categories: personal action, working for governmental regulation, and joining organizations. The most popular sphere of action is personal. In particular, the public would be most likely to recycle motor oil and pick up litter at the beach, and to a lesser extent, only eat fish that was caught or farmed in an environmentally-safe manner. However, the public also shows some willingness to take actions to promote more effective government regulations, such as to encourage local officials to build better sewage treatment plants and to support tougher laws to restrict development near bays and harbors.

A considerably less popular form of action is joining an organization involved in ocean conservation. Willingness to take action for government regulation and to join an organization differs among subgroups of the population, which is explained in the Mellman cluster analysis [chapter F].

The 1996 survey of visitors to the National Museum of Natural History's oceans exhibit indicated that individual actions such as stopping pollution, taking personal political action, and supporting environmental groups were the most likely top of mind responses for what the visitors could do to help solve ocean problems. Visitors also mentioned the importance of educating themselves and others about oceans and changing consumption habits.

Ocean Conservation Actions

Now I am going to list some things people can do to help protect the ocean. For each that I mention, please tell me how likely you would be to take such an action. Would you be almost certain to take the following action, very likely, somewhat likely, not too likely, or not at all likely to take the following action. If you don't have an opinion, just say so and we will go on.

	Almost certain	Very likely	Smwht likely	Not too likely	Not at all	DK
Personal action						
Recycle used motor oil by taking it to local service stations	49%	35	8	3	3	2
Pick up litter whenever you go to the beach	42%	38	11	3	5	1
Only eat fish that was caught or farmed in an environmentally safe manner	28%	32	20	8	6	7
Learn more about ocean conservation by reading, watching films, or visiting aquariums and museums	26%	35	25	8	5	2
Only buy seafood that the government says is not being overfished	25%	33	21	9	8	5
Inquire whether there are contamination warnings in effect for a particular kind of fish or seafood before you buy it	25%	28	18	17	8	4
Pay higher water bills to fund better sewage and storm water treatment plants in your community	20%	26	26	12	11	5

The Mellman Group for SeaWeb, June 1996, N= 650 adults

Ocean Conservation Actions Continued

Now I am going to list some things people can do to help protect the ocean. For each that I mention, please tell me how likely you would be to take such an action. Would you be almost certain to take the following action, very likely, somewhat likely, not too likely, or not at all likely to take the following action. If you don't have an opinion, just say so and we will go on.

	Almost certain	Very likely	Smwht likely	Not too likely	Not at all	DK
Regulation						
Encourage local officials to build better sewage treatment plants	32%	35	18	7	5	1
Support tough new laws restricting development near bays and harbors	25%	39	18	8	6	4
Support efforts to set aside land near bays and harbors and not allow any development there	24%	33	24	9	6	3
Support the adoption of tough new regulations to limit building and development along our coastlines	24%	34	21	11	6	3
Encourage elected officials to set aside more ocean areas as marine parks where no human activity would be permitted	19%	29	24	13	10	5
Contact elected officials and urge them to take action to protect the ocean	18%	24	27	20	10	2
Joining an organization						
Participate in an organized community activity like a beach clean-up	22%	29	22	13	13	2
Get involved in efforts to clean up the land around harbors and bays	16%	26	25	17	14	2
Join a national environmental organization	12%	15	25	26	20	2
Join a local environmental organization	12%	21	28	20	17	1
Contact an ocean conservation organization to volunteer in local projects	12%	17	25	26	19	2
Attend city council or state legislation meetings on ocean issues	10%	17	25	26	19	3

The Mellman Group for SeaWeb, June 1996, N= 650 adults

How Visitors Can Help

What do you think someone like you can do to help solve ocean problems? Anything else?

	Total
Individual action	50%
Prevent/Stop Pollution	21
Personal political action	13
Support environmental organization	11
Volunteer own time/act	6
General political action	4
Join environmental organization	3
Contribute to environmental organization	2
Enforce environmental laws	1
Monitor industrial practices	1
Save animal species	1
Establish animal sanctuaries	*
Educate self/others	28%
Educate others/children	17
Increase own awareness	13
Change consumption	22%
Change personal behavior	16
Change economic behavior	4
Change economic behavior/boycott	2
Change personal ocean use practices	1
Change global ocean use practices	1
Stop pollution	18%
Conserve resources/reduce waste	15
Recycle/reuse	*
Start/support community recycling	*
Stop polluting	3
Clean up	9%
Clean up environment, self	8
Clean up environment, others	1
Nothing	6%
Other	5%
Improve technology	1
Other	4
Don't know	10%

The National Museum of Natural History, May 1996, N= 978 (entrance N= 406 visitors to the exhibit, exit N= 572 visitors to the exhibit)

c. Consumption of fish and seafood

One key area of personal action is consumption of seafood. Over half the public reports eating fish or seafood at least once a week. The SeaWeb data show that if the public was made aware of fish contamination and overfishing, personal behaviors could change.

Large majorities say they would be unlikely to eat fish that was categorized by the government as contaminated (90%) or overfished (62%). Two-thirds (67%) say they would be “certain not to eat” contaminated fish, while one-third (32%) would be “certain not to eat” fish that was overfished.

Only a small majority (54%) indicates knowledge of government warnings of fish contamination, and fewer than four in 10 (37%) believe the government classifies certain fish as “overfished.”

A national Roper poll for Sea World in 1992 reported that large majorities of Americans favor paying more for fish in order to stop killing dolphins in tuna catches and in order to limit overfishing and protect future supplies. However, a plurality of Americans opposes taking down large dams and paying more for electricity in order to “help more endangered salmon survive.”

Eating Fish and Seafood

How often do you eat fish or seafood -- several times a week, about once a week, sometimes, rarely, or do you never eat fish or seafood?

Several times a week	21%
About once a week	35
Sometimes	25
Rarely	14
Never	5
Don't know	*

Which of the following reasons best explains why you do not eat seafood? (Asked of those who “never” eat seafood)

Don't like the taste of it	35%
Possible contamination	14
Religious or moral reasons	2
To stop overfishing on some species	4
It is too expensive	16
Other	21
Don't know/Refuse	5

The Mellman Group for SeaWeb, June 1996, N= 650 adults

Warnings on Contamination

As far as you know, does your state or federal government issue warnings saying that some types of fish or seafood are contaminated or do they not issue such warning, or don't you happen to know?

Issues warnings	54%
Do not issue warnings	17
Don't know	29

If a certain type of fish were categorized by the government as contaminated would you be less likely to eat it or wouldn't it make much difference to you, or are you not sure? **(If less likely:** Would you be certain not to eat it, much less likely to eat it, or somewhat less likely to eat it?)

Certain not to eat it	67%
Much less likely	23
Somewhat less likely	5
Wouldn't make much difference	3
Not sure/Don't know	1

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Warnings on Overfishing

As far as you know, does the federal government classify some fish or seafood as overfished, do they not classify some fish or seafood as overfished, or don't you happen to know?

Does classify	37%
Does not classify	20
Don't know	43

If a certain type of fish were categorized by the government as overfished would you be less likely to eat it or wouldn't it make much difference to you, or are you not sure? **(If less likely:** Would you be certain not to eat it, much less likely to eat it, or somewhat less likely to eat it?)

Certain not to eat it	32%
Much less likely	30
Somewhat less likely	14
Wouldn't make much difference	17
Not sure/Don't know	6

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Fish Trade-Offs

We're hearing more these days about trade-offs -- in other words, sacrificing one thing for the sake of another. I am going to read you a list of some trade-offs having to do with conservation and the environment. For each one I want you to consider both the advantages and disadvantages of making the sacrifice and tell me whether you think the sacrifice would be worth making or not... Is that sacrifice worth making or not?

	Sacrifice worth making	Sacrifice not worth making	DK
We could limit the amount of commercial fishing done in our coastal waters to protect fishing grounds for the future, but this would mean paying more now when buying fish.	80%	15	5
We could make it illegal to use methods that kill dolphins when catching tuna in the oceans, but this would mean consumers paying twice as much for tuna fish.	78%	17	5
In rivers of the Northwestern United States we could help more endangered salmon survive, but this would mean taking down large dams and cause higher prices for electricity.	42%	49	9

Roper Organization for The Times Mirror, February 1992, N= 1200 adults

E. Protecting the Oceans

Considering oceans generally, the public agrees strongly with a variety of reasons that the oceans need to be protected. Commitment to future generations and human health issues top the list. Almost unanimously, Americans agree in the SeaWeb survey that “we have a responsibility to protect the oceans” for future generations (98% agree; 84% strongly) and that ocean destruction “is a threat to the health of future generations” (94% agree; 82% strongly).

This high priority on the value of protecting the environment for future generations was echoed in the B&R/RSM survey for the Biodiversity Project in 1996. The responsibility to future generations and concern for one’s family registered as the two most widely held values for protecting the environment. These values are reflected in another SeaWeb finding -- that Americans also agree that contaminated seafood is a serious threat to human health, and that the health of the oceans has broad implications for our own health.

Americans strongly support two possible ways of protecting the oceans. Six in ten (63%) strongly agree that there should be careful management of the development of coastal communities, and another six in ten (62%) strongly endorse setting aside specific areas of the oceans near the coasts as protected and where fishing, motor-boating, and jetskiing are prohibited.

Protecting the Oceans

Now I am going to read a list of short statements. After each, please tell me whether you agree or disagree with what I have just read. If you are not sure, please say so and we’ll go on.

	Agree strongly	Agree not strongly	Disagree not strongly	Disagree strongly	DK
Careful management of the development of coastal communities will help protect the oceans	63%	27	6	2	2
Specific areas of the ocean near the coast should be set aside as protected sanctuaries where fishing, motor-boating and jetskiing are prohibited	62%	23	7	5	2

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Protecting the Oceans

Now I am going to read a list of short statements. After each, please tell me whether you agree or disagree with what I have just read. If you are not sure, please say so and we'll go on.

	Agree strngly	Agree not strngly	Disagree not strngly	Disagree strngly	DK
We have a responsibility to protect the oceans so future generations can enjoy them	84%	14	*	*	1
The destruction of the ocean is a threat to the health of future generations	82%	12	3	3	1
Contaminated seafood is a serious threat to human health	77%	16	4	2	1
If the oceans, which cover three-fourths of the earth and support all life, are in trouble, so are we**	76%	18	3	2	2
If the oceans are in trouble, so are we**	75%	20	3	1	1
The destruction of the ocean is a threat to the health of people today	68%	22	5	3	2
The oceans contain unexplored resources which when discovered could improve our quality of life	68%	23	2	3	4
When a species of fish or marine mammal face extinction, an important link in the ecosystem is being threatened**	65%	20	5	2	7
Overfishing is threatening the health and stability of the marine environment**	54%	28	8	4	6
Cures for some of the world's deadliest diseases might be discovered in the ocean	53%	30	5	3	9
Overfishing is threatening our supply of seafood**	45%	26	13	5	11

The Mellman Group for SeaWeb, June 1996, N= 1300 adults, except ** is split sample

Reasons to Personally Care About the Environment

Please think of a 1 to 10 scale. This time one means something is not at all a reason to you to personally and 10 means it is an extremely important reason to you personally to care about protecting the environment.

	% saying 10
Wanting your family to live in a healthy, pleasant environment	79%
You have a responsibility to leave the earth in good shape for future generations	71%
Nature is God's creation and humans should respect God's work	67%
An appreciation for the beauty of nature	63%
Your need for a balanced environment so you can personally have a productive, healthy life	59%
As an American wanting to protect the natural resources and beauty of this country	58%
All life in nature has a right to exist	55%

Belden & Russonello and R/S/M, March 1996, N= 2005 adults

F. Oceans Cluster Analysis

Cluster analysis allows us to look deeper into the characteristics of segments of the population according to the different initiatives they would support and types of actions they would take to reverse ocean degradation. The Mellman survey for SeaWeb constructed five categories of individuals, based on their answers to survey questions. The following is a short description of Mellman's cluster analysis on oceans issues.

The key demographic characteristics of each cluster include:

1. **Ocean Activists** tend to be strong environmentalists, younger, and less well-educated.
2. **Activist Non-joiners** are overwhelmingly female, white, baby boomers, and well educated.
3. The **Anti-regulation/Pro-personal Action** group is older and politically centrist.
4. The **Muddled Masses** tend to be males without college degrees.
5. **Aquatic Apathetics** are male, conservative, and Republican.

Ocean Clusters

	% of population
1. Ocean Activists: Willing to take personal action, support the adoption of tougher ocean laws, and want to join a community ocean organization.	20%
2. Activist Non-joiners: Willing to take personal action, and support the adoption of tougher ocean laws, but are not eager to join organizations.	16
3. Anti-regulation/ Pro-personal Action: Willing to take personal action, are somewhat willing to join an organization, but do not support the adoption of new laws and regulations to protect the ocean.	19
4. Muddled Masses: Willing to take personal action and support new regulations only if not inconvenienced in their daily life. They are not willing to join organizations.	27
5. Aquatic Apathetics: Not willing to take personal action, oppose new laws and regulations, and refuse to join organizations.	16

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Ocean Clusters By Key Characteristics

	1. Ocean actvsts	2. Actvst non-jnrs	3. Anti-reg, prsnl action	4. Muddled masses	5. Aquatic apthtics
Female	55%	63%	46%	45%	44%
Male	45	37	54	55	56
18-29	23%	19%	17%	23%	21%
30-39	20	16	19	21	18
40-49	20	26	16	21	19
50-59	16	15	21	15	14
60+	18	22	25	18	27
White	77%	88%	82%	81%	86%
Black	13	4	12	10	6
Hispanic	7	5	5	6	4
<HS/HS	47%	31%	40%	41%	41%
Some college	27	34	32	34	24
College grad+	26	34	27	24	34
<\$20,000	25%	18%	16%	17%	20%
\$20K-\$30K	19	15	19	12	16
\$30K-\$50K	28	27	28	31	25
\$50K+	17	28	22	27	22
Management/professional	22%	28%	27%	28%	27%
White collar	17	13	15	14	17
Blue collar	15	11	13	14	12
Retired	20	19	24	16	21
Democrat	42%	39%	30%	30%	24%
Republican	27	28	32	37	46
Independent	31	33	26	33	29
Liberal	38%	40%	29%	35%	19%
Conservative	39	32	39	41	56
Moderate	18	22	24	21	19
Live in coastal communities	25%	21%	19%	24%	19%
East	20%	18%	23%	22%	18%
Midwest	22	29	28	23	33
South	39	31	27	39	32
West	19	21	23	16	19
Environmental behavior					
Strong environmentalist	44%	40%	35%	30%	16%
Regularly recycle	65%	66%	61%	59%	56%
Go to the beach at least once a month	18%	11%	11%	13%	7%
Scuba or snorkel	12%	12%	12%	14%	13%
Fish	42%	39%	34%	42%	40%
State of the ocean:					
Ocean gotten worse	64%	67%	62%	56%	44%
Ocean is very important	65%	58%	51%	43%	26%
Threat to quality of life is very serious	68%	61%	46%	52%	33%
Threat very serious in 10 years	77%	74%	58%	63%	44%

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Personal Actions by Clusters

% saying almost certain to take such an action

	1. Ocean actvsts	2. Actvst non- jnrs	3. Anti-reg, prsnl action	4. Muddled masses	5. Aquatic apthtics
Recycle used motor oil by taking it to local service stations	93%	77%	73%	33%	29%
Pick up litter whenever you go to the beach	95%	75%	67%	25%	19%
Only eat fish or seafood that was caught or farmed in an environmentally safe manner	86%	60%	39%	14%	6%
Learn more about ocean conservation by reading, watching films, or visiting aquariums and museums	88%	61%	40%	10%	5%
Only buy seafood that the government says is not being overfished	80%	46%	37%	13%	7%
Inquire whether there are contamination warnings in effect for a particular kind of fish or seafood before you buy it	84%	65%	28%	11%	3%
Participate in an organized community activity like a beach clean-up	90%	45%	39%	3%	5%

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Regulations by Cluster

% saying almost certain to take such an action

	1. Ocean actvsts	2. Actvst non- jnrs	3. Anti-reg, prsnl action	4. Muddled masses	5. Aquatic apthtics
Encourage local officials to build better sewage treatment plants	97%	77%	62%	9%	5%
Support tough new laws restricting development near bays and harbors	86%	68%	23%	13%	2%
Support the adoption of tough new regulations to limit building and development along our coastlines	88%	73%	22%	11%	*
Support efforts to set aside land near bays and harbors and not allow any development there	83%	68%	18%	12%	3%
Encourage elected officials to set aside more ocean areas as marine parks where no human activity would be permitted	77%	59%	15%	7%	2%
Pay higher water bills to fund better sewage and storm water treatment plants in your community	84%	53%	10%	9%	2%

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Joining An Organization and Lobbying by Cluster
% saying almost certain to take such an action

	1. Ocean actvsts	2. Actvst non- jnrs	3. Anti-reg, prsnl action	4. Muddled masses	5. Aquatic apthtics
Get involved in efforts to clean up the land around harbors and bays	88%	24%	26%	3%	3%
Contact elected officials and urge them to take action to protect the ocean	81%	28%	32%	6%	1%
Contact an ocean conservation organization to volunteer in local projects	71%	19%	16%	3%	*
Join a national environmental organization	74%	25%	15%	*	*
Attend city council or state legislation meetings on ocean issues	75%	15%	17%	1%	1%
Join a local environmental organization	72%	15%	12%	1%	*

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

G. Messengers on Oceans

The most trusted messengers on ocean protection of those tested in SeaWeb’s 1996 survey are National Geographic (68% trust “a great deal”) and Jacques Cousteau (63% trust “a great deal”). A majority also places a great deal of trust in zoos and aquariums.

The National Oceanic and Atmospheric Administration (NOAA), national environmental organizations, and public television are greatly trusted by more than 4 in 10 Americans.

Members of Congress are the least likely to be trusted for information about ocean protection.

The public believes there is a disconnect in what scientists and citizens believe are problems facing the oceans, and when the opinions of scientists and citizens diverge, the public is split on whose concerns should receive the government’s focus.

Messengers on Ocean Protection

Please tell me whether you trust what this group or person has to say about ocean protection a great deal, some, not too much, or not at all. If you are not sure, please say so and we will go on.

	A great deal	Some	Not too much	Not at all	DK
National Geographic	68%	28	1	1	3
Jacques Cousteau	63%	22	4	3	8
Zoos and aquariums	51%	37	5	2	5
The National Oceanic and Atmospheric Administration (NOAA)	49%	33	5	2	12
National environmental organizations	43%	43	7	3	4
Public Television, or PBS	42%	42	8	5	4
A local environmental organization	35%	48	9	3	6
Your child	33%	35	7	6	19
National Public Radio	22%	46	13	8	12
President Clinton	12%	41	16	23	8
Vice President Gore	12%	40	17	20	12
Senator Dole	8%	35	18	25	14
Your member of Congress	7%	41	20	20	11

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

Citizens and Scientists on Oceans

Do you think that citizens and scientists probably agree on which are the most important problems facing the oceans, or do you think scientists and citizens probably disagree about which are the most important problems facing the oceans?

Same problems	29%
Disagree, different problems	61
Don't know	10

If a conflict does exist, should government focus more of its attention on dealing with the problems that citizens are most concerned about or should government focus more of its attention on dealing with the problems that scientists are most concerned about -- or don't you have an opinion on this?

Citizens concerns	42%
Scientists	37
Both equal (volunteer)	13
Don't know	7

The Mellman Group for SeaWeb, June 1996, N= 1300 adults

The work of aquariums and zoos and the environmental role they play are much valued by Americans when they are informed. The Roper poll for Sea World in 1992 revealed that when Americans consider numerous aspects of aquariums' work, the public's highest priority is species preservation and rehabilitation of injured animals, followed by environmental education of the public, then research. Less important is the entertainment value of aquariums and zoos.

A majority of Americans agree that zoos, aquariums and animal parks "play an important role in educating children" about "wild animals." Also, four in 10 agree completely that concern for animals is likely to increase from information presented at zoos and aquariums.

Comparing "animal facilities," such as aquariums, zoos, and animal parks, run by local governments and non-profit organizations and those run by companies for profit, pluralities of Americans see no difference in most areas. However, government and non-profit aquariums are more likely than private ones to be perceived as having helpful, knowledgeable workers, healthy and happy animals, and better facilities and programs for breeding endangered animals. Privately-run animal facilities are seen as having more entertaining exhibits.

These findings suggest that aquariums and zoos will find a receptive public to their education efforts on oceans.

Aquariums and Zoos and the Environment

I'd like you to think about what you consider to be important for a zoo, aquarium, or animal park to do in addition to displaying land and marine animals. For each of the items on this list, please tell me if you feel it is essential for a zoo, aquarium, or animal park to do, or is it important but not essential, or is it not that important relative to other considerations, or is it not that important at all?

	Essential	Important but not essential	Not that/Not at all important, DK
Doing work for animal species preservation.	60%	30	10
Working to rehabilitate injured animals or animals that lost their homes due to acts of nature or other environmental disasters.	59%	28	13
Doing all they can to promote environmental conservation.	58%	32	10
Educating people about environmental conservation.	56%	35	9
Educating people about the animals being displayed.	52%	39	9
Doing research to learn more about the animals.	51%	36	13
Entertaining people while they're learning about the animals.	20%	44	36

Roper Organization for Sea World, May 1992, N= 1987 adults

Aquariums and Zoos and the Environment

This card contains several statements that have been made regarding zoos, aquariums, and animal parks that display wild animals. For each statement, please tell me how much you agree or disagree with that statement... Is that something you agree with completely, or agree with mostly, or disagree with mostly, or disagree with completely?

	Agree completely	Agree mostly	Disagree mostly/ completely, DK
If it weren't for zoos, aquariums, and animal parks, most children wouldn't have any opportunity to see wild animals.	52%	39	9
Zoos, aquariums and animal parks play an important role in educating children about those animals.	51%	40	9
Zoos, aquariums and animal parks are important in educating the public about animals they might not otherwise know about.	46%	46	8
My family enjoys going to the zoo, or other places where we can see animals close up.	44%	41	15
While it would be best if people could see animals in their natural environment, most people will never get the chance. Therefore, zoos, aquariums, and parks are important for people to get to know animals.	44%	45	11
The good that zoos, aquariums and animal parks do outweighs the bad that they do.	41%	44	15
People are more likely to be concerned about animals if they learn something about them at zoos, aquariums and animal parks.	40%	46	14
It's important that humans try and preserve animals in zoos, aquariums and animal parks, because we're endangering so many animals in the wild.	36%	45	19
Studying animals in captivity helps develop conservation programs for those animals that can be instituted in their natural environment.	35%	49	16
Most of the successes that have been realized in the work to save endangered or declining species have come because of work done in zoos, aquariums and animal parks.	31%	48	21
Animals in zoos, aquariums and animal parks generally don't live as long as they do in the wild.	12%	25	63
Places that keep animals in captivity actually harm those animals by removing them from their natural habitat.	10%	27	63
Places that keep animals in captivity don't really care about animals, they only want to exploit the animals for commercial purposes.	7%	20	73
Animals shouldn't be kept in zoos, aquariums or animal parks.	7%	17	76

Roper Organization for Sea World, May 1992, N= 1987 adults

Aquariums and Zoos and the Environment

Some zoos, animal parks and aquariums are controlled and maintained by local governments or by local not-for profit organizations. Other parks are controlled and maintained by companies. For each of the items on this card, please tell me if you think you would be more likely to find it in animal facilities run by local governments or local not-for profit organizations, or animal facilities run by companies, or are they all pretty much the same?

	All about the same	Local gov'ts & non-profits	Companies	DK
Helpful workers	51%	24	14	11
Knowledgeable workers	49%	27	12	12
Happy animals	46%	31	10	13
Greater concern for animals overall	46%	32	10	12
Healthy animals	44%	34	10	12
Opportunities for personal contact with animals	43%	27	18	12
Better facilities for animals	40%	33	14	13
Exotic animals	37%	28	21	14
Entertaining exhibits	35%	19	33	13
Breeding programs for endangered animals	33%	42	12	13

Roper Organization for Sea World, May 1992, N= 1987 adults