HB

493

HOUSE COMMITTEE REPORT

(11)

Date referred: 3/28/88 FURTHER REFERRALS:

DATE: 4/8/88

The Finance Committee has considered HB 493

"An Act relating to marine garbage collection; and providing for an effective date."

RECOMMENDS:

[X] replace with CS HB493(C&RA) [ ] the same title
[ ] attached amendment(s) [ ] a new title

- [X] do pass
- [ ] do not pass
- [ ] no recommendation
- [ ] individual recommendations
- [ ] additional referral to the _____ Committee

ADOPTS: [ ] _____ letter of intent

ATTACHES NEW FISCAL NOTE(s):

- [ ] fiscal impact
- [ ] zero fiscal note
- [ ] zero with analysis
- [X] same as previous fiscal note published 3/28/88
- [ ] same as previous zero fiscal note published _____

SIGNING DO PASS:

Adams Lee Adams
Larson Ron Larson
Goll Pete Goll
Boyer Mark Boyer
Wallis Kay Wallis
Frank Al Adams Jr.
Pourchot Pat Pourchot

SIGNING OTHER RECOMMENDATIONS:

Lee Adams
Chairman's signature

(1.1) HB 493

BILL VERSION: (S) HB 493 Same

PUBLISH DATE: _____

STATE OF ALASKA
1988 LEGISLATIVE SESSION

FISCAL NOTE

REQUEST:

Revision Date: _____

Title: "An Act relating to marine garbage collection..effective date."

Sponsor: Herrmann & Sund

Requestor: _____

Agency Affected: Community & Regional Affairs

BRU: _____

Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES		23.1	23.9	24.7	25.5	26.3
TRAVEL		2.0	2.0	2.0	2.0	2.0
CONTRACTUAL		3.0	3.0	3.0	3.0	3.0
SUPPLIES						
EQUIPMENT		1.0				
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING		29.1	28.9	29.7	30.5	31.3
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		29.1	28.9	29.7	30.5	31.3
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Prepared by: Jim Plasman, Deputy Director — Phone: 465-4750

Division: Municipal & Regional Assistance — Date: 3/25/88

Approved by Commissioner: _____ — Date: 3/25/88

Agency: Community & Regional Affairs

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

Position Title	Grants Administrator	No. of Positions 1	Range/Step 17 A	Barg. Unit GGU
Time Status: Part Time	Staff Months: 6 months	Location: Juneau	Election District:	

Type of Expenditure		Amount
1	2	3
Salary	17.4	
Benefits	5.7	
Premium Pay		
Other		
Total Personal Services		23.1
Travel		
Contractual		
Commodities		
Equipment		
Other		
Total Cost		

Funding Source for Total Cost		
Federal Receipts	1002	
G. F. Match	1003	
General Fund	1004	
GF Program Receipts	1005	
Other		

Justification

This position will administer the grants program. The amount of work associated with the program does not justify a full time position.

Request For New Position

Agency: Community & Regional Affairs

BRU: Local Government Assistance

Component: Local Government Support

Revised Date

FY 89

Offered: 3/28/88
Referred: Finance

5-1966B

Original sponsors: Herrmann and Sund

IN THE HOUSE

BY THE COMMUNITY AND REGIONAL AFFAIRS COMMITTEE

CS FOR HOUSE BILL NO. 493 (C&RA)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to marine garbage collection; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 44.47 is amended by adding a new section to read:

ARTICLE 12A. MARINE GARBAGE COLLECTION GRANTS.

Sec. 44.47.750. MARINE GARBAGE COLLECTION FUND. (a) There is established in the department the marine garbage collection fund as an account in the general fund. The fund consists of money appropriated to it. Money in the fund may be used to make grants to municipalities and unincorporated communities as provided for in AS 29.60.140, for the collection of marine garbage in state water.

(b) The department shall adopt regulations for the determination of entitlement to marine garbage collection grants, application and approval of grants, and administration of grants.

(c) In making grants under this section, the department shall consider

(1) the number of vessels engaged in commercial fishing or related activities, including processing, in water adjacent to or within the applicant's jurisdiction;

(2) the volume of garbage that is dumped by vessels in the area or that drifts into the area after being dumped by vessels operating outside state water;

(3) the effect of marine garbage on the environment in the area;

(4) other resources available to the applicant; and

(5) other factors that the department establishes by regulation that are relevant to a determination of the applicant's need for financial assistance to alleviate the locality's marine garbage problem.

* Sec. 2. This Act takes effect immediately under AS 01.10.070(c).

(1,2) HB 493

STATE OF ALASKA

STEVE COWPER, GOVERNOR

DEPT. OF COMMUNITY & REGIONAL AFFAIRS

MUNICIPAL & REGIONAL ASSISTANCE DIVISION

☐ 949 E. 36th AVENUE, SUITE 400
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☐ P.O. BOX 41
NOME, ALASKA 99762-0041
PHONE: (907) 443-5457

March 25, 1988

Position Paper

RE: House Bill 493

SPONSOR: Representative Herrmann

Program Effects:

This bill would establish in this department a grants program for municipalities and unincorporated communities to be used for the collection of marine garbage in state water.

Comments:

The problems this bill is designed to address are serious ones, particularly in the Bristol Bay region. The intent is apparently to provide easier access for fishing boats and processors to waste disposal systems in coastal communities to encourage lawful disposal of marine garbage, rather than unlawful dumping. The method adopted by this bill is to give grants to municipalities which may be expected to provide directly, or contract for, floating collection barges, which may then transport the garbage to an appropriate waste disposal site.

This department has less expertise in the areas of waste disposal and environmental quality that are essential to the solution of this problem than, for instance, the Department of Environmental Conservation. However, that department does not currently administer operating grants programs of this nature and is not prepared to go into the grants area. The nature of the proposed program will require a close coordination of effort with DEC, as this department does not have the resources to independently evaluate some of the criteria listed in the bill for consideration in making the grants.

The department has one technical concern that should be addressed. While the bill would make unincorporated communities eligible to receive grants, an unincorporated community by its nature is unable to receive a grant. The department would recommend specifying eligible entities within such a community to receive funds under the program and would propose the approach taken in the State Revenue Sharing Program at AS 29.40.160 as a model.

The impacts of marine garbage collection on communities will become even greater with the recent adoption of federal law dealing with the disposal of marine garbage. This bill provides a means to assist municipalities deal with those impacts. However, while the department is sympathetic to these goals, because of the current revenue situation, it is unable to support the bill.

Marty Rutherford
Acting Deputy Commissioner

(2) HB 493

STATE OF ALASKA

OFFICE OF THE GOVERNOR

BILL ANALYSIS

MAR 22 1988

DEPARTMENT	DIVISION	BILL NUMBER	SPONSOR
DEC		HB 493	Herrmann & Sund

SHORT TITLE OF BILL
Relating to marine garbage collection

DEPARTMENT POSITION
The Department supports the objective of the bill.

PREPARED BY	DATE	COMMISSIONER'S SIGNATURE	DATE
Amy D. Kyle	2/29/88		3/1/88

SUMMARY

OTHER AGENCIES AFFECTED BY BILL	CONSTITUENT GROUP(S) AFFECTED BY BILL
DCRA	
ORGANIZATIONAL SUPPORT FOR BILL	**ORGANIZATIONAL OPPOSITION TO BILL**

FISCAL IMPACT: ☐ NONE ☐ FISCAL NOTE ATTACHED

BACKGROUND/LEGISLATIVE INTENT
The bill is intended to address long-standing problems with accumulation of garbage from fishing boats in Bristol Bay. At present, garbage collection facilities are not easily accessible to fishing boats.

ANALYSIS OF BILL/PROGRAM EFFECTS
The bill would create a program in the Department of Community and Regional Affairs to make grants to communities for garbage collection.

The criteria appear to be sound. The need for garbage collection services is real. The bill would address the absence of a private enterprise.

No fiscal impact on DEC.

AMENDMENTS PROPOSED

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS.

01-000 (Rev. 12/85)

Bristol Bay Solid Waste Task Force

April 10, 1985 - Attendance

NAME	ADDRESS	ORGANIZATION
Marion Adams	Pouch A, Dillingham	Alaska Department of Environmental Conservation
John M. Pearson	Box 169, Dillingham	City of Dillingham
Roland D. Moody	Aleknagik	Moody's
Jeff Srakde	Box 199, Dillingham, AK	Alaska Department of Fish and Game
Daniel Nanalook	P.O.Box 109, Togiak, AK	Togiak Natilus, Ltd.
Henry Pavian	P.O.Box 56, Togiak, AK	Togiak Community Council
Jim Barr	4019 21st Ave., W., Seattle, WA	Icicle Seafoods
Henry Shade	P.O. Box 2, Dillingham, AK	Bristol Bay Area Health Corporation
Arla Tracy	P.O.Box 433, Pilot Pt., AK	Pilot Point Village Council
Don Penner	Box 189, Naknek, AK	Bristol Bay Borough
Earl J. Gattodor	Box 179, Naknek, AK	Patterson's
John M. Schibel	P.O.Box 504, Dutch Harbor, AK	Dutch Harbor Seafoods
Doug Donegan	P.O. Box 0, Juneau, Alaska, 99811-1800	Department of Environmental Conservation
Mark Lisac	Box 10201, DLG	United States Fish & Wildlife Service
Jeff Smith	DLG	Public Health Service
J.C. Hiles		Fisherman
Harvey Samuelson		

(3) HB 493

Alaska State Legislature

House of Representatives

Committee on
Community & Regional Affairs

Pouch V
State Capitol
Juneau, Alaska 99811
(907) 465-4833

March 22, 1988

TO: Rep. Henry Springer, Chairman HCRA

FROM: David C. Harrison, P. A., HCRA DCH

Subject: BILL REVIEW - HB 493 "An Act relating to marine garbage collection; and providing for an effective date."

****

Section 1. AS 44.47 is amended to add a new section .750 establishing a program within the DCRA to make grants to local commuities for marine garbage collection.

DCRA is required to adopt regulations for determining marine garbage collection grants, applications, approvals of grants as well as administering grants for garbage collection to local communities so affected.

Criteria as related in this bill are most appropriate.

There is a need to provide marine garbage collections and to have marine garbage facilities in those commercial fishing areas that have short but intensive commercial activities.

Although some land based canneries have their own landfill and take care of their own garbage, many floater processors that do not have land based operations have a problem with disposing garbage and/or what to do with it.

Local garbage is not the only problem. high seas garbage also is noted, such things as floating nets foreign/local that are lost on the high seas, plastics of all kinds that remain afloat so that birds and seamamals are caught and die as a result of entanglement in this type of gear.

Alaska State Legislature

REPRESENTATIVE
ADELHEID HERRMANN
P O BOX 83
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(907) 246-4495

While in Juneau
BOX V
JUNEAU ALASKA 99811
(907) 465 4942 465 4943

CO-CHAIRMAN
RESOURCES COMMITTEE

MEMBER
COMMUNITY & REGIONAL
AFFAIRS COMMITTEE

House of Representatives

DISTRICT 26

ADAK
AKUTAN
ALEKNAGIK
ATKA
BELKOFSKI
CLARK S POINT
COLD BAY
DILLINGHAM
DUTCH HARBOR
EGEGIK
EKUK
EKWOK
FALSE PASS
IGIUGIG
ILIAMNA
KING COVE
KING SALMON
KOKHANOK
KOLIGANEK
LEVELOCK
MANOKOTAK
NAKNEK
NELSON LAGOON
NEWHALEN
NEW STUYAHOK
NIKOLSKI
NONDALTON
PEDRO BAY
PILOT POINT
PORT ALSWORTH
PORT HEIDEN
PORT MOLLER
PORTAGE CREEK
SAND POINT
SOUTH NAKNEK
SQUAW HARBOR
ST GEORGE
ST PAUL
TOGIAK
TWIN HILLS
UGASHIK
UNALASKA

M E M O R A N D U M

TO: Jim Plasman, Deputy Director
Division of Municipal and Regional Assistance
Community and Regional Affairs

FROM: Representative Adelheid Herrmann

DATE: March 22, 1988

SUBJECT: HB 493 and HB 494; establishing marine garbage collection fund and an appropriation.

HISTORY:

Marine garbage collection and fish processing waste became a big issue in my district in 1981. Concerned citizens recognized a very dramatic increase in the dumping volume of unground viscera, heads, whole fish, and other processing waste. The problem grew to a wider magnitude when combustible and non-combustible solid waste surfaced in drift and setnets, and on beaches. In addition, a common complaint brought to my attention from many vessel operators, was the entangling problem of plastic strapping on vessel propellors. This segment of the overall garbage issue brought forth an organized effort to involve the State's regulatory agencies, primarily DEC.

The problem was first brought to the attention of the Department of Environmental Conservation back in 1982. Through the efforts of the Bristol Bay Borough, DEC, and other local communities, the Bristol Bay Solid Waste Task Force was formed. This task force organized fish and solid waste disposal recommendations. This information is included with the back-up material.

One proposed solution to the on-going problem for Bristol Bay was to permanently station a representative of the DEC office in Dillingham. The representative was later moved to Naknek because most of the processors were located in the Naknek area. I believe this was done in 1983.

Many suggestions to address this marine garbage issue were voiced through local and involved organizations, which is also provided in the packet. In 1984 two of the suggestions included; a fish waste disposal plan for Bristol Bay, and a garbage scow contracted or responsible to the State to haul garbage to shore for disposal at municipal dump sites. This brings forth the question of landfill capacity within the municipalities.

A garbage collection pilot project was one avenue we did pursue in 1985, but this proposal was vetoed by the Governor. Here we are again, trying to address this extreme and monumental problem both in my district as well as in other coastal areas of our state. I am aware these $200,000 funds will only be a beginning in alleviating this issue. However, there is an extreme necessity to begin developing a garbage collection scheme now, as it is affecting our natural resources both on the state and national level. Recently Congress passed a bill which I monitored closely. "33 U.S.C. 1901-1911, as amended, requires that ports and terminals in the United States provide reception facilities for certain pollutants and garbage from ships"; and with the passage of this bill on the federal level requiring marine garbage to be brought on shore, I can see rural coastal communities needing assistance real soon with this issue.

I hope this information and the attached material will be of help in your positive position papor on the bill.

a:hb493.txt

BACKGROUND ON FISH AND SOLID WASTE DISPOSAL IN BRISTOL BAY

Fish and Solid Waste Disposal in Bristol Bay during fishing seasons is a problem. 1983 was no exception. The amount of pollution caused by dumping untreated fish and solid waste into Bristol Bay is almost impossible to determine. 1983 found 29 land processors and 38 floating processors operating in Bristol Bay. Also included are the estimated 400 to 500 support vessels. Add to that approximately 1800 gill net vessels and support vessels for approximately 900 set net operations. 39.1 million salmon were harvested in Bristol Bay.

This information is presented to give you an idea of how much disposable waste can be generated by the fishing industry. Fish heads, viscera, solid waste dumped into the rivers of Bristol Bay can be a monumental problem if the State fails to prevent pollution.

FISH AND SOLID WASTE DISPOSAL RECOMMENDATIONS

1. A Fish and Solid Waste Disposal Program for the 1984 Fishing Season to be funded to accomplish the following goals:
   a) Plan and implement a Bristol Bay Fish and Solid Waste Disposal Plan for the 1984 fishing season which would allow the Department of Environmental Conservation to station a permanent representative in Bristol Bay.
   b) Send all processors, support vessels and fishermen information about bilge oil, sewage and fish waste regulations that will be in effect in 1984.
   c) Increase the man days of actual on-site inspection and patrols of shore-based and floating processors. (ADEC presence is a must during the height of the season.)
   d) Re-establish contact with enforcement and judicial officers regarding ADEC mission in Bristol Bay as it relates to fish and solid waste disposal.
   e) Have ADEC establish a Fish and Solid Waste Disposal Task Force of concerned parties to address fish and solid waste disposal problems in Bristol Bay and make policy recommendations for legislative and administrative consideration.

Co-Man Services • Box 234, Dillingham, Alaska 99576 • Phone (907) 842-2366

MEMORANDUM

State of Alaska

TO: Bob Martin
Deputy Director, EQO

DATE: September 14, 1983

FILE NO:

TELEPHONE NO: 274-2533

FROM: Jim Allen
Anchorage/Western
District Supervisor

SUBJECT: Bristol Bay

Norman Stadem visited this office on September 12, 1983 regarding the pollution of Bristol Bay during the 1983 Salmon Season. Mr. Stadem is a economist by profession, a professor at APU and a member of the board of the Alaska Independent Fisherman's Marketing Association Cooperative (AIFMAC) and a fisherman. Mr. Stadem is representing AIFMAC during his visit. The AIFMAC has a membership of 500 plus fishermen.

We reviewed my report to Keith Kelton dated August 18, 1983 on the same subject.

Mr. Stadem is still concerned with the type and volume of pollution to the bay and cited several examples where fishing boats had become disabled and were required to be towed to shore to untangle plastic binding material from the propellers. This material is used to bind fibers used for packing processed fish.

We both agreed that in-addition to reducing pollution that a greater distance between boats would tend to reduce incidental pollution from the ships and boats.

It is my recommendation that we expand beyond our regulatory role and into one where we can obtain cooperation from all departments, organizations, and individuals involved in Bristol Bay.

DEC should form a committee to form a task force on the problem and make recommendations for implementation of a program to further reduce pollution. Formation of the committee and members of the task force should include but not limited to the following:

1. The Departments of Fish and Game and Public Safety, Fish and Wildlife Protection
2. DEC, Seafood and Animal Health
3. Alaska Independent Fisherman's Marketing Association Cooperative

5. Local Native Associations

6. City of Dillingham

7. Western Alaska Commerical Fisherman's Association

8. North Pacific Processors Association

9. Alaska Fisherman's Journal

Grants are needed to establish local landfills and collection points located where waste oil and refuse can be stored. The committee should start work on plans for a task force in January or February 1984.

JCA/mem
cc: Keith Kelton
Norman Stauem
Jeff Skrade
Joe Campbell

BIO
ECONOMIC
RESEARCH AND ANALYSIS

NORMAN STADEM
ECONOMIST

1826 EAST 26TH AVENUE
ANCHORAGE, ALASKA 99504
(907) 272-0908

September 13, 1983

Mr. James C. Allen
Anchorage/Western District Supervisor
Alaska Department of Environmental Conservation
437 E Street, Suite 200
Anchorage, AK. 99501

Dear Mr. Allen:

This is to affirm my impression of the positive results of our meeting yesterday in your office regarding the solid fish waste disposal problem in the Naknek/Kvichak Rivers during the Sockeye salmon fishing season. There has been a dramatic increase in the volume of unground viscera, heads, and whole fish and other processing waste during the past two years. In my capacity as a representative of the Alaska Independent Fishermen's Marketing Association, Coop I heard from a large number of the fishermen in respect to this problem. The concern was unanimous--the problem has gotten out of hand, and A.I.F.M.A.Coop must bring the problem to the attention of regulatory agencies for resolution. Obviously, of primary concern is the economic cost transfered to the fishermen by those processors who dump without grinding these fish wastes. Fishing productivity is adversely impacted since productive time is wasted in disentangling this material, especially viscera, from the nets. There is a concern also for the possible health hazzard of infection, such as blood poisoning or fish poisoning, from constantly handling the decomposing fish wastes. Of no small significance is the detrimental impact on morale.

We realize that waste disposal is a fundamental problem in a primary processing industry such as salmon fishery. However, ADEC has essentially solved this problem in the case of shore-based processors by requiring that all fish wastes be ground before dumping it into the water-ways. The problem, with respect to the fishermen, is more acute in the case of floating processors because they dump directly in the prime fishing areas. Thus, there is no chance of some of the material washing ashore, where it decomposes or is eaten by birds and animals, rather than being caught in gill nets.

Your suggestion that ADEC take the initiative in organizing a meeting of concerned parties to discuss the general problem of waste disposal into the Bay, is taken as a positive step in seeking a solution to this increasing problem. We look forward to hearing more on this in the near future.

Sincerely yours,

Norman Stadem
Assemblyman, AIFMA Coop

cc: State Rep. Adelheid Herrmann
Mr. Mitch Kink, Gen. Mgr., AIFMA Coop

MEMORANDUM

State of Alaska

437 E. Street, Suite 200 Anchorage, Alaska 99501

TO: Keith Kelton
Director, EQD

DATE: August 18, 1983

FILE NO:

TELEPHONE NO: 274-2533

FROM: James C. Allen
Anchorage/Western
District Supervisor

SUBJECT: Disposal of Salmon and Solid Waste in Bristol Bay 1983

Based on my 1982 observations, the following plan was initiated for the 1983 season:

1. Five-thousand, six-hundred fisherman and two-hundred and eighty-eight processors applied to fish and process herring in Bristol Bay for the 1983 season. Our main concern and that of Fish and Game was oil pollution from the fishing and processing vessels. Herring roe is very susceptible to the effects of petroleum products. Letters were sent to all processors and made available to processors when they reregistered locally with the Department of Fish and Game. Ten man days was spent on the Fish and Wildlife vessel Vigilant for enforement purposes. No oil pollution was observed. I feel this was due to the fact that we sent out the letters, we were there and excellent weather conditions. Last year ten fishing boats were sunk or driven on shore by bad weather.

2. Bristol Bay Salmon Processors are located at:

Location	Land	Floating	Tenders	Freighters
Dillingham	6	-	-	-
Queen Slough	1	-	-	-
Clarks Point	-	8	-	-
Ekuk	1	1	-	-
Naknek	5	21	48	17
South Naknek	3	-	-	-
Egegik	1	2	-	-
Pederson Point	1	-	-	-
Togiak	1	-	-	-
TOTAL	19	32	48	17

This represents the majority of the plants and processors in the immediate area. Tenders and freighters were only counted in the area off of the Naknek River. It is difficult to estimate the amount of fish waste produced from the 36 million red salmon that were processed. Kings, silvers and other salmon are not included in this figure. It is also difficult to estimate the amount of solid waste generated from the processing and the crew.

5227

Again, letters were sent to all processors and copies were provided to Fish and Game offices in Dillingham and King Salmon for distribution.

Ten man days were spent during the last two weeks in June to primarily inspect land based plants for water, sewage and fish waste discharge systems. Ten man days were spent the first two weeks in July to board floating processors for sanitary, solid and fish waste discharge.

On two occasions, The Bristol Bay Borough made available their fire boat. Within three hours we were able to check the sterns of seventy-eight vessels. Fish and Wildlife Protection provided a boat ride to Queen Fisheries which eliminated an air charter cost.

Meetings were held with the Magistrates in Naknek and Dillingham and letters were sent to reconfirm our conversation and included regulations, waste discharge requirements for land and floating processors and types of misdemeanors. This information was also provided to Fish and Wildlife personnel in Dillingham and Naknek.

Observations:

1. Everyone contacted regarding our 1983 activities to reduce pollution in Bristol Bay were very favorable. Other than the improved esthetic effects to the water and beaches, there were other positive benefits, i.e, fish-heads no longer effected set nets; fish intestines no longer effected drift nets; plastic bands on fiber etc., no longer fouled propellers. Question -

2. Everyone contacted that had been in the Bay had noted a decrease in the amounts and types of solid and fish waste which was also our own observations.

3. Sixteen NOVs were issued in the four week period and essentially dealt with improper fish waste discharge.

4. Nine of the twenty-one floating salmon processors in the Naknek area had installed incinerators to reduce the volume of combustible waste.

5. As the results of our letter and activities, the refuse collector contractor for the Bristol Bay Borough instituted a refuse collection service by boat for salmon processors off of the Naknek River.

Recommendation:

To continue the present program for the 1984 season however, this is in conflict with the Regional and District work plan and the approximately 40% decreasse in travel budget for the Anchorage/Western District.

JCA/msm

274-2533
SCRO
437 E Street
Suite 200
Anchorage, AK
99501

June 6, 1983

Dear Seafood Processors:

This is further to our April 18, 1983 letter of information regarding oil, sewage and soild waste pollution of Bristol Bay.

All processing plants have Seafood Processing Wastewater Permits. These permits require grinding Seafood wastes to a size that is capable of passing through a 0.5 inch mesh screen. The effluent seafood wastewater is to be discharged at a depth equal or greater than mean lower low water for shore based plants. Floating Seafood processors wastewater effluent shall be discharged at a depth equal to or greater than 42 feet below mean lower low water.

Acceptable methods of solid waste disposal are to incinerate combustibles and compact and store non-combustibles for transportation to an approved landfill site in Alaska or outside. The Department will have personnal in the Bristol Bay area for the Salmon processing season to assist operators in meeting these requirements and to enforce state regulations. Violations of provisions of the oil, wastewater and solid waste regulations will be subject to appropriate enforcement action.

Your cooperation will assist us to protect the environment of Bristol Bay.

If you have any questions regarding this letter please contact this office at 274-2533.

Sincerely,

Bob Martin
Regional Supervisor

BM/JCA/msm

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

SOUTHCENTRAL REGIONAL OFFICE

BILL SHEFFIELD, GOVERNOR

☑ *437 E. STREET*
SECOND FLOOR
ANCHORAGE, ALASKA 99501
(907) 274-2533

☐ *P.O. BOX 615*
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(907) 486-3350

☐ *P.O. BOX 1207*
SOLDOTNA, ALASKA 99669
(907) 262-5210

☐ *P.O. BOX 1709*
VALDEZ, ALASKA 99686
(907) 835-4698

☐ *P.O. BOX 1064*
WASILLA, ALASKA 99687
(907) 376-5038

April 18, 1983

Dear Fishermen and Seafood Processors:

Marine intertidal and nearshore areas require special attention as they are very productive and supply habitat essential to the life cycles of many important species. Herring and salmon are among the many species where the intertidal and nearshore regions play an important role in their productivity. This habitat is extremely sensitive and easily damaged by oil spills and improper waste disposal, particularly in areas where spawning takes place. The State of Alaska has implemented regulations to protect these resources from various forms of pollution.

The most common pollution incidents in the fishing grounds have been the discharging of bilge oils and fuel spills, the dumping of solid waste overboard and on beaches, and the discharging of untreated sewage and processing wastes. These incidents can significantly impact the future fisheries of the area.

This fishing season, the Alaska Department of Environmental Conservation will be in the field working with other agencies in an effort to reduce the pollution incidents associated with the harvest of fishery resources. This work will entail routine patrols amongst the fishing fleet, boarding vessels to alert the vessel master to pollution prevention, and responding to pollution incidents as they are reported.

State law requires prompt reporting of oil spills and other serious pollution incidents. This reporting helps to facilitate quick cleanups thereby reducing environmental impacts and damage to fishing equipment. During the upcoming fishing seasons you should be able to contact this Department in the field through the Alaska Fish and Wildlife Protection Service or the Alaska State Troopers or in Anchorage dial 274-2533. If you cannot contact this Department, contact the U.S. Coast Guard, the Alaska Department of Fish and Game, or the local police.

We enlist your support in our efforts to prevent pollution which may affect fishing resources.

Sincerely,

Bob Martin
Regional Supervisor

BM/SZ/nsm

18-09LH

MEMORANDUM

437 "E" Street, Suite 200

State of Alaska

Anchorage, Alaska 99501

TO: Bill Lamoreaux
District Office
Supervisor

DATE: August 2, 1982

FILE NO:

TELEPHONE NO: 274-2533

FROM: James C. Allen
Anchorage/Western
District Supervisor

SUBJECT: Bristol Bay Solid Waste Disposal Problems

For a number of years complaints have been made to the Department regarding solid waste in Bristol Bay. This can be divided into two different problems. These are fish heads and intestines from shore and floating salmon processors and solid waste generated by the floating processors. The fish heads and intestines are more of a problem along the beaches where they foul the set nets and prevent netting of salmon. A considerable amount of time and frustration is spent in removing the waste. Intestines are more of a problem from the floating processors as the heads, having weight, generally sink to the bottom. Floating processors near the shore are a greater problem than those in the center of the bay.

Many of the processors burn combustible solid waste on the stern and they will tell you that the non-combustibles are taken to a shore dump, but this is highly questioned as being accurate, which was confirmed by informal conversation with crew members. Ships that don't burn refuse and those with non-combustibles dump them over the side causing accumulation of waste on the bottom and the beach.

Fish and Game requires all operators to file an intent to operate for the next year. The form can be used to determine who is going to process what seafood and where. I have requested a copy of this report be mailed to me in December 1982.

Contact was made on my Dillingham trip of July 26-29, 1982 with John Campbell and Ron Kiniecik, Fish & Wildlife Protection. Both express their concern for the solid waste problems of the region both on land and at sea. They have requested a memo from our Department stating section of the statutes and AAC to cite in issuing a citation.

Observation of waste discharge pipes in Kodiak and Dillingham revealed a discrepancy on our part on not requiring design and construction requirements on the outfalls. Processors use plastic that is too fragile for either an anchor or wave action. We should require Class 50 ductile iron, with joints which will take a 5° defection without leaking. To protect this pipe, it should be required to be buried to a depth of 5 feet until it can be exposed at a depth 10 feet below minimum low low tide. A diffusser would be ideal, but not necessary.

The discharge pipe should be required to be anchored with 9 foot spacing were exposed on the bottom.

Recommendations:

1. We notify all land processors that:

   a. Grind to less than 0.5 inch square and discharge as described above.

   b. To discontinue processing when grinder or discharge pipe is broken. This should motivate back-up grinder in parallel. This should also apply to floating processors however, no discharge line would be required.

2. Combustible solid waste on floating processors should be required to be burned or compacted with non-combustibles and transported to local dumps. Boats from the processor are running back and forth all day. Any processor or boat observed to discharge solid wastes into the waters of the State will be cited.

3. A specification for the discharge outfall should be a part of the permit.

In summary, we should inform all processors of our 1983 season requirements and plan to have DEC personnel in Bristol Bay in 1983 for at least the first three weeks of July.

JCA/ccs

Alaska State Legislature

REPRESENTATIVE
ADELHEID HERRMANN
PO BOX 63
NAKNEK, ALASKA 99633
(907) 246-4495

Write in Juneau
BOX V
JUNEAU ALASKA 99811
(907) 465-4942, 465-4943

CO CHAIRMAN
RESOURCES COMMITTEE

MEMBER
TRANSPORTATION
COMMITTEE

House of Representatives

DISTRICT 26

ADAK
AKUTAN
ALEKNAGIK
ATKA
BELKOFSKI
CLARK'S POINT
COLD BAY
DILLINGHAM
DUTCH HARBOR
EGEGIK
EKUK
EKWOK
FALSE PASS
IGIUGIG
ILIAMNA
KING COVE
KING SALMON
KOKHANOK
KOLIGANEK
LEVELOCK
MANOKOTAK
NAKNEK
NELSON LAGOON
NEWHALEN
NEW STUYAHOK
NIKOLSKI
NONDALTON
PEDRO BAY
PILOT POINT
PORT ALSWORTH
PORT HEIDEN
PORT MOLLER
PORTAGE CREEK
SAND POINT
SOUTH NAKNEK
SQUAW HARBOR
ST GEORGE
ST PAUL
TOGIAK
TWIN HILLS
UGASHIK
UNALASKA

March 12, 1987

Western Legislative Conference
720 Sacramento St.
San Francisco, CA 94108
ATTN: Dan Sprague, Office Director
Patty Spangler, Policy Analyst

Dear Dan and Patty:

Attached is a White Paper on Ocean Dumping and Marine Debris prepared at my request by the Alaska House Research Agency.

My interest in this subject has primarily stemmed from a reoccurring problem with marine debris and garbage dumping in my district. In addition to our local fleets, we have had an influx of international and out-of-state boats in the waters of District 26. These large fleets comprise of floating processors, tenders, and at the very least approximately 1700 gillnet fishing vessels in the Bristol Bay area.

The problem waste takes two forms; one being the disposed unground fish waste (intestines, etc.) attributed to the processors not using grinders, and the other consists of refuse thrown overboard from floating processors, tenders, and gillnet fishing vessels.

In addition to the general complaints of refuse dumping, fishermen complained of catching the unground fish waste in their nets. This generated additional concerns; resulting in extra work for crews to clear the nets, the offensive odor of the decomposing waste, concerns of possible health hazzard associated with frequent handling of so much decomposing fish waste, and the mere nuisance of the fish waste.

Athough we have seen improvements, this is an ongoing concern within my district. For example, a proposal to contract barges for the purpose of transporting

refuse from the bays to the nearest onshore dump sites gained much support but, did not receive approval in the administrations budget.

On the other hand, there has been increased usage of waste grinders and incinerators on floating processors, which was basically a result of citizens voicing their concerns.

I hope the Western Legislative Conference will find this paper very helpful. I would like to emphasize my concern with regard to this issue. Thank you.

Sincerely,

Adelheid Herrmann

Adelheid Herrmann
Alaska State Representative
District 26

AH/rs

ALASKA STATE LEGISLATURE
HOUSE OF REPRESENTATIVES
RESEARCH AGENCY

P O. Box Y, State Capitol
Juneau, Alaska 99811-3100
Mail Stop 3100
(907) 465-3991

March 10, 1987

MEMORANDUM

TO: Representative Adelheid Herrmann

ATTN: Rona Sorensen

FROM: Karen Oakley KO
Legislative Analyst

RE: White Paper on Ocean Dumping and Marine Debris
Research Request 87.154

You requested that we prepare a draft white paper on ocean dumping for discussion by the Pacific States/Territories Ocean Resource Group (ORG) of the Western Legislative Conference (WLC) of the Council of State Governments. The ORG was formed in 1985 to study, share information, analyze, discuss, and act upon major policy issues affecting the ocean and coastal resources of the member states and territories.[1] A number of marine issues were selected for study, and lead states/territories were designated for preparing papers on each issue. Papers were to be 6 to 7 double-spaced pages in length and contain: 1) a succinct statement of the issue; 2) background information; 3) an analysis of major policy issues and events; 4) a description of alternatives for resolving the issue; and 5) recommendations. Guam was originally designated to prepare the paper on ocean dumping. When they were unable to complete the project, you volunteered. Draft papers are due to the WLC office in Sacramento in mid-March 1987.

The draft white paper attached addresses both ocean dumping and marine debris. "Ocean dumping" refers to the regulated disposal of materials, primarily dredged materials and sewage sludge, in the ocean. "Marine debris" generally refers to refuse discarded at sea from vessels. While the marine debris issue was not initially selected for discussion, this issue has received national attention during the last few months, and several pieces of legislation addressing marine debris are currently being considered by Congress. Therefore, I have addressed both issues in the paper.

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[1]Alaska, Amercian Samoa, California, Commonwealth of the Northern Mariana Islands, Guam, Hawaii, Oregon, and Washington are participating in the Ocean Resources Group.

As you know, our agency does not make recommendations. The draft paper therefore includes a discussion of the various alternatives but makes no recommendations.

Attached are most of the documents I referred to in drafting this paper, including the documents you transmitted to us. These reference documents are organized by topic in several attachments.

I hope you find this draft paper useful. Please let me know if you need any further information.

Attachments

OCEAN DUMPING AND MARINE DEBRIS

Prepared by the State of Alaska for the Ocean Resources Group of the Western Legislative Conference of the Council of State Governments.

STATEMENT OF THE ISSUE

The ocean serves many societal functions, including waste disposal. While the assimilative capacity of the ocean is great, it is not infinite, and other uses of the ocean may be adversely affected by the unregulated disposal of wastes in the ocean. Two marine waste disposal issues are of concern here: 1) ocean dumping; and 2) marine debris. "Ocean dumping," which has been regulated in the United States for 15 years, refers generally to the disposal of materials, primarily sewage sludges, dredged materials, and industrial wastes, which are transported to the ocean for the specific purpose of disposal. "Marine debris" refers generally to man-made objects that are intentionally or accidentally discarded at sea from vessels or that enter the sea from the land.

Regulation of the use of the ocean for waste disposal is in the realm of international and national law, and the role that coastal states may play in regulating the use of their offshore waters for waste disposal is circumscribed by federal rules. Both ocean dumping and marine debris are

issues of current high interest at the national level, and regulatory changes are imminent. Such changes could affect waste disposal and management practices, and, coastal states, which have interests in both waste disposal and protection of the coastal environment, will necessarily be affected. This white paper addresses the role that Pacific states and territories may play in preventing the degradation of the ocean and its living resources from ocean dumping and marine disposal.

BACKGROUND

Ocean dumping. Most industrialized nations, including the United States, have long used the oceans as a convenient dumping ground for all kinds of waste. While some wastes can be safely assimilated, other wastes, particularly heavy metals, pathogenic microorganisms, organohalogens, chlorinated hydrocarbons, petroleum hydrocarbons and radioactive wastes, can adversely affect the marine environment and pose a threat to human health. The United States was one of the first countries to recognize that coastal waters could be degraded by the unregulated disposal of wastes in the ocean, and, in 1972, Congress enacted the Marine Protection, Research, and Sanctuaries Act (MPRSA), commonly called the Ocean Dumping Act (ODA). The act declared that it was the policy of the United States to:

> regulate the dumping of all types of materials into ocean waters and to prevent or strictly limit the dumping into ocean waters of any material which would adversely affect human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities.

While Congress recognized that the oceans had a role to play in waste disposal, they rejected the idea that the ocean's great capacity to assimilate waste made it the optimal disposal medium. The ODA expressly prohibited the ocean dumping of radiological, chemical and biological warfare agents and high-level radioactive waste and prohibited the disposal of all other materials except as authorized by permit. The Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (CE) were directed to establish and implement a regulatory program for ocean dumping. The EPA was to serve as the lead agency, and because the CE already had jurisdiction over dredging activities under the Clean Water Act, the CE was delegated the authority to review and issue permits for the disposal of dredged materials.

At the time that the ODA was enacted, the United States was working actively with other nations to conclude an international treaty to regulate ocean dumping. This treaty, titled the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter and known commonly as the London Dumping Convention (LDC), was initially signed by 27 nations in 1972 and went into force in 1975. The LDC requires each nation to adopt

domestic implementing legislation, and the ODA was modified in 1974 to make it fully consonant with the treaty.

Although the United States took the lead in enacting its own law to regulate ocean dumping and in pushing for an international treaty, implementation within the U. S. has been slow. Since enactment of the ODA over 15 years ago, the quantity of wastes dumped in the ocean has hardly abated, and in some cases, has increased. This situation is largely the result of EPA's use of "interim permits" to authorize continued dumping: In 1977, EPA designated 140 historically used ocean dump sites on an interim basis pending completion of baseline studies necessary for final site designation determinations. EPA's policy was to "dump now, study later." The use of interim permits made sense during the early years of ODA implementation as existing dumpers needed an opportunity to comply with the environmental criteria required for a special permit or to develop land-based alternatives. The EPA has been slow in completing the required studies of the interim sites, however, and only a few sites have received final approval.

The EPA and the CE have been taken to court several times over their implementation of the ODA. All of the disputes have involved disposal sites on the East Coast, where the lack of land for waste disposal has increased pressure on the use of ocean for waste disposal. Two cases are of particular importance because the rulings in these cases require that EPA change their regulations governing the evaluation of ocean dumping permit applications.

In National Wildlife Federation v. Costle, a case over the use of different criteria for evaluating dredged and non-dredged material disposal sites, the court ruled that the EPA may set different standards for review of dredged materials disposal sites. The courts also ruled, however, that the standards are invalid unless and until the EPA explains their rationale for the use of different criteria. Dredged materials are often innocuous, but in harbors that receive sediments from industrialized areas, the sea floor may contain heavy metals and other harmful compounds. The National Wildlife Federation had argued that the criteria for evaluating applications for the disposal of dredged material should be the same as for other industrial materials.

In City of New York v. EPA, a dispute over the banning of sewage sludge disposal in Long Island Sound, the court held that the EPA was required to evaluate the need for the ocean dumping of sludge, the effects of the dumping on the specific dump site and the costs of land-based alternatives in reviewing the City of New York's application to continue dumping sewage sludge. This decision requires EPA to balance the costs and impacts of land-based disposal against the marine environmental sensitivity criteria. Before the decision, EPA could reject an application if their analysis of the material to be dumped showed that the ocean would be "unreasonably degraded" by its disposal. The City of New York decision essentially requires EPA to perform a cost-benefit analysis; since the true costs of ocean disposal are unknown and largely unquantifiable, the ocean will often appear to be the most cost-effective location for disposal.

Although both cases were decided in the early 1980s, EPA is only now about to publish their proposed regulation changes in the Federal Register. While it is generally understood that the revisions will bring the EPA regulations into compliance with Costle and City of New York decisions, the specific content of the new regulations is not known at this time. Any changes in the regulations for reviewing ocean dumping permit applications will be important to the western states and territories because most of the sites in the Pacific Ocean have not yet received final approval, and because most of the sites in the Pacific are for the disposal of dredged materials. There are currently 35 ocean dumping sites with interim approval and eight sites with final approval within the waters of the western states and territories. All but one of the interim sites are for the disposal of materials dredged from harbors and ports; the other interim site, located in American Samoa, is for the disposal of fish cannery wastes. Of the approved sites, there are five in Hawaii and one in California for dredged material disposal, one in California for the disposal of drilling muds and cuttings, and one near the South Pacific island of Kwajalein for the disposal of wastes from a missile range.

In addition to these interim and approved ocean dumping sites, several proposals for new sites are apparently under consideration. The U. S. Navy has recently proposed to dump 100 decommissioned nuclear submarines and thousands of tons of radium and uranium contaminated soil from the WW II Manhattan Project at a site near American Samoa. While an Environmental

Impact Statement (EIS) has been prepared for this proposal, no decision has yet been made. Several major West Coast cities are also considering the ocean disposal of sewage sludge, a practice heretofore conducted in the United States only on the East Coast.

Thus, for the western states and territories, final designation of ocean dumping sites is pending, and states still have the opportunity to be involved in the decision-making process. While courts have held that EPA and the CE are not required to write an Environmental Impact Statement for each dumping site, it is the policy of both agencies to prepare them. Some of the interim sites for the disposal of dredged materials are in territorial waters within three miles of shore, and final designation of these sites will require a finding of consistency with the state's coastal management program. Through the EIS process and the coastal management consistency process, states are afforded an opportunity to comment on final site designation of interim sites and on proposed new sites. Changes in the way that the EPA makes decisions about site approval are imminent, however, and these changes are expected to generally weaken the criteria, making it more difficult to deny permits.

Marine Debris. Man-made objects that one way or another end up in the ocean are currently the focus of another ocean waste disposal issue termed "marine debris". For centuries, shipboard practice has been to discard refuse at sea; overboard disposal was convenient, and the need to maintain

hygienic conditions in confined quarters necessitated prompt waste disposal. Until the recent past, this practice did not appear to present any major problem as most materials were easily degraded. With the advent of modern plastics, however, wastes dumped overboard now contain quantities of material that do not readily degrade and that float. Now, much of the refuse that is discarded at sea does not disappear, but persists, accumulates and is transported far from the disposal site.

Great quantities of plastics are disposed at sea from merchant ships. navies, recreational fisherman and boaters, commercial fisherman and beach goers. Another major source of plastic in the ocean is from the land via rivers and municipal sewage outfalls. Fishing nets, lines and pots, now made almost exclusively of plastics and nylon, are another component of marine debris. Worn fishing gear may be intentionally discarded, but is more often simply lost.

Much of the debris that is disposed of at sea ends up back on shore. While beach litter is unsightly and degrades the recreational use of our nation's shores, the major problems created by marine debris occur at sea. Marine birds, mammals, and turtles become entangled in discarded nets, lines and strapping bands, and they are also known to ingest plastic beads, bags and other synthetic materials which they apparently mistake for food. From the number and distribution of species that have been documented to be affected by entanglement or ingestion of plastics, it can be concluded that plastics are pervasive in the marine environment and are a factor in the lives of most marine animals. While the impact on marine populations is

not yet well understood, plastic pollution has been implicated in declines of several species, including the northern fur seal on the Pribilof Islands in the Bering Sea and the endangered Hawaiian monk seal.

Derelict fishing gear is also a problem for marine animals, as the gear continues to fish, catching non-target birds and mammals and target fishes for long periods of time, even years, after the gear is lost. Derelict gear therefore contributes to the impact on marine bird and mammal populations from plastic pollution and results in loss of economically important target species as well.

In addition to the problems caused for marine animals, marine debris presents a safety hazard to vessels due to such occurrences as entanglement of propellers or blockage of intakes. The loss of living resources, the degradation of beaches, and the loss of vessel working time together comprise the costs of using the ocean as a depository for nondegradable wastes.

Currently, there are no laws prohibiting the disposal of plastics at sea. The Protocol of 1978--Relating to the International Convention for the Prevention of Pollution from Ships--1973, which is referred to as MARPOL, contains an addendum, Annex V, which would prohibit the disposal of plastics at sea. While the United States is a signatory of MARPOL, the United States has yet to sign Annex V. Recent awareness of the problems created by marine debris has renewed pressure on the United States to sign Annex V. In February 1987, the National Security Council recommended approval, and ratification by the Senate is expected.

As for the London Dumping Convention, each signatory will need to pass domestic legislation to implement Annex V. Several bills are already before Congress that would implement Annex V. One such bill, HR 940, introduced by Congressman Studds, is entitled the Plastic Pollution Research and Control Act and would instruct the Coast Guard, which currently enforces the provisions of MARPOL in the United States, to administer and enforce Annex V. This bill would also require the study of derelict nets and discarded plastics on marine life and inventories of port capabilities to handle wastes previously discarded at sea.

POLICY ISSUES AND EVENTS

The traditional legal principle governing human use of the ocean has been that no nation has sovereignty over the high seas, and the use of the oceans for waste disposal provides a classic example of the "tragedy of the commons." Heretofore, all nations have been able to enjoy the convenience of ocean disposal without responsibility for the costs. Only recently have the costs of unregulated disposal of wastes in the ocean been recognized.

Environmental laws are partitioned by the medium receiving the waste, and this medium-based approach to waste disposal regulation results in the shifting of wastes to the least regulated medium. Regulation of disposal

on land, in the air, and in surface waters preceded any regulation of disposal in the ocean, and use of the ocean as a disposal medium accelerated as regulation of disposal in the other mediums tightened. The LDC and MARPOL provide a legal force to encourage proper stewardship of the ocean and balance the political and economic forces that have heretofore made waste disposal in the ocean so financially appealing.

Enactment and implementation of these laws was a necessary first step. The crux of the ocean waste disposal problem, however, lies in what can be done with the mountains of waste that our society produces. Prohibiting ocean disposal of sewage sludge or of plastics does not solve the problem of what to do with sewage sludge or with shipboard garbage. As New York City Mayor Edward Koch rhetorically asked the House Merchant Marine and Fisheries Committee when they were considering a ban on sewage sludge disposal in the New York bight: "What am I going to do with this sludge, take it home and keep it in my apartment? I can unequivocally state that no land sites are available in the New York area for storing these materials in the volumes in which they are produced." The recognition that the ocean cannot provide an "easy answer" to the question of what to do with our wastes has made the problem more complex.

Coastal states have a vital interest in protecting the productivity of their coastal waters which provide for the livelihoods, recreation, and, indeed, the identities of their peoples. States, as the operators, funders and regulators of landfills, also have a vital interest in waste disposal. The banning or regulation of waste disposal in the ocean shifts the burden for receiving wastes back to the land, and coastal states will be required to take some responsibility for the proper disposal of these wastes.

The time for greater coastal state involvement in Pacific Ocean waste disposal issues is at hand. Most of the ocean dumping sites in the western states and territories will be considered for final site designation in the next two to three years. Decisions about final site designation will be made using criteria that require the EPA to consider the costs of land-based disposal alternatives in determining whether the ocean will be unreasonably degraded by use of a particular dump site. States still have an opportunity to comment on these regulation changes and to be involved in decisions to approve both interim and new dumping sites. Regarding marine debris, international and national laws will soon end the common practice of dumping all wastes overboard. Ratification of Annex V is pending, and coastal states can speed its implementation in the United States by determining how wastes which were once disposed of at sea can best be handled onshore.

ACTION ALTERNATIVES

Ocean dumping. While international and federal laws are in place for regulation of ocean dumping, states still have a responsibility to determine whether approval of each proposed dump site is acceptable. There are several steps that states can take which will help determine the future of ocean dumping in their regions:

Review proposed changes in EPA regulations on ocean dumping. Proposed changes in EPA ocean dumping regulations to bring the regulations into conformance with court rulings will be published in the Federal Register in the spring or summer of 1987. States could individually or collectively review and comment on those regulations to assess their impact on the process of receiving final site designation for sites in their states. States could also consider the effect of the proposed changes on the decision-making process for approval of new sites for disposal of wastes which heretofore have not been disposed of on the west coast, such as sewage sludge and low-level radioactive wastes.

Be vigilant in review of all old and new proposed dump sites. States should not assume that because a dump site has been in use for many years that no environmental harm is occurring. Interim dumping sites were designated solely on the basis of their historical use, so states should review the Environmental Impact Statement for final designation of interim sites as carefully as they would review an EIS for a proposed new site. In Oregon, study of the long-used Tillamook Bay dumping site revealed that the area is one of the most productive on the entire Oregon coast.

Express support of continued funding of the ODA research provisions. In addition to providing for a regulatory program for ocean dumping, the Ocean Dumping Act instructed the EPA and the National

Oceanic and Atmospheric Administration (NOAA) to conduct research into the effects of ocean dumping and on alternative methods of waste disposal. Under the current administration, funding of this part of the ODA has lagged. States need to actively support the funding of this type of research, especially in light of the changes expected in the EPA regulations due to the City of New York decision.

Marine Debris. International and national laws are not yet in place to regulate man-made debris in the ocean, but enactment is expected soon. States may speed implementation by anticipating the effects that enactment will have in their regions. States may take a variety of actions, individually or collectively, that would help end pollution of the oceans from marine debris:

Express support for ratification and implementation of Annex V. While the Senate is expected to ratify Annex V at any time, expressions of support could still be important. Also, once ratified, implementing legislation will have to be enacted, and even though several bills are currently under consideration that would implement Annex V, there is no certainty that implementing legislation will pass this session or that such legislation would be adequately funded. Strong support of Annex V implementation by coastal states could speed action by Congress. Congress is likely to be concerned about the burden on land-based disposal sites that

will be placed by Annex V, and states could show their willingness to accommodate these wastes onshore.

Sponsor beach cleanup projects. To solve the problem of marine debris will require changes in attitudes and behavior. People are not likely to change their habits of throwing refuse overboard until they understand the problems that are caused by this practice. Beach cleanups, where the public is given the opportunity to work together to pick up all litter on selected beaches, are a proven method of increasing public awareness of the fate of plastics and other man-made debris in the ocean. While the "clean up" provides only temporary relief of the litter on the beaches, the cleanups are a useful tool for educating the public. Beach cleanups have been used successfully on the East Coast, in Texas and in Oregon. When held simultaneously by several states, beach cleanups may magnify public awareness.

If all debris collected during cleanups is inventoried, beach cleanups can also provide data on the types and sources of debris most common in a particular region. States may then target their actions to abate the specific sources of debris that are a problem in their region.

Sponsor education of involved groups. In addition to beach cleanups as a method of reaching the public, states could sponsor the preparation and implementation of educational talks to groups that have an interest in protecting the coastal environment or that will otherwise be affected by implementation of Annex V. Education and resultant changes in public opinion are probably the key to implementation of Annex V because strict enforcement of Annex V is logistically impossible. People must decide to do something with their trash other than throw it overboard, and people must be provided with reasonable alternatives for dispcsal. Probably the only thing that will cause them to decide to change their habits is an understanding of the consequences of that action and the availability of a convenient alternative.

The NOAA has already embarked on some educational work of this type. A presentation on marine debris has been prepared and given to fishermen's groups all along the West Coast and was received with great interest. This kind of educational effort is a necessary predecessor to getting acceptance of any new rules about disposal of shipboard wastes.

Promote use of limited lifetime plastics and plastics recycling. The technology exists to create plastic containers with limited lifetimes. In California, Oregon and Alaska, nonbiodegradable six-pack holders have been banned, and holders made of short-lived

plastics are used. For these types of plastic products to come into wider use, consumers will have to demand them. Inventory of the types of plastic products showing up on beaches may provide clues of other types of products that do not need to be long lasting, and states may wish to consider also banning these products.

States may also play a role in the promotion of the recycling and reuse of plastic wastes. California and Oregon are considering legislation that would subsidize the development of plastics recycling industries. People have learned that paper, glass, tin, aluminum, and newspaper can be recycled, and states may be able to encourage people to also recycle plastics.

Help ports determine the best way to handle garbage from ships. Because the immediate result of Annex V is to ban at-sea disposal of wastes, ports must be prepared to handle the wastes that were previously dumped at sea. Most ports are probably totally unequipped to handle great increases in the quantities of refuse, and upgrading of refuse handling facilities will undoubtedly be required. States may bear or share in the costs of upgrading. States may need to determine the amounts, types and seasonality of wastes that will be generated in each port to see where nearby landfills can accommodate the additional wastes.

NOAA, through the National Marine Fisheries Service, has recently helped fund a one-year cooperative study with the Port of Newport, Oregon, to develop a system for the receipt and disposal of vessel-generated and nonbiodegradable refuse. Pilot projects such as this will provide information vital to implementation of Annex V.

Designate sanctuaries. In every coastal state, there are some areas that are deserving of a higher standard of environmental care. States may have the ability to designate such areas as sanctuaries wherein special rules apply. Some of the Annex V implementation bills would designate an area around the Aleutian Islands as a seabird conservation zone. Sanctuary designation by states may help call attention to locally important areas and help prevent waste disposal in them.

Sponsor research on net loss. Derelict fishing nets and pots represent lost fishing time, lost capital investments for fisherman, and they have the potential to harm both target and nontarget resources. While some fisherman do discard old nets at sea, fishermen generally do not try to lose their nets. A study of the conditions under which gear is lost would be important to determining if anything could be done to prevent such losses. This information would benefit fishermen and would help solve the problems of derelict nets.

Increase enforcement of existing state litter laws within the three-mile limit. Most states have litter laws that prevent the disposal of wastes in the state's land and waters, including its marine waters, except as provided by permit. The current practice of disposing of wastes overboard probably violates the litter laws of most states. As for Annex V, enforcement of litter laws in marine waters would be logistically difficult. States may be able to use existing enforcement personnel of related laws for this purpose to some extent. In Alaska, seafood inspectors have attempted to educate seafood processors and others in the seafood industry that wastes should not be disposed of overboard.

JIM D. CLARK
BOROUGH MANAGER

TELEPHONE
(907) 246-4224

Bristol Bay Borough

BOX 189 • NAKNEK, ALASKA 99633

March 18, 1988

Representative Adelheid Herrmann
Box V
Juneau, AK 99811

RE: HB 493, HB 494 & HJR 61

Dear Adelheid:

There is a critical need to solve the marine garbage problems in Bristol Bay and in other areas of Alaska. Further, there is a critical need for financial support from the State of Alaska and the United States Congress to allow coastal communities to join in preventing marine pollution. We support HB 493 and 494 and request the State Legislature to enact both bills to help us solve a problem that is harmful to Bristol Bay and the entire State of Alaska.

Sincerely,

Jim D. Clark
Borough Manager

bjt

99TH CONGRESS
2D SESSION

S. 2596

To require the Administrator of the Environmental Protection Agency to conduct a study of the adverse effects that the pollution of the environment caused by discarding or dumping of plastics on land and in the waters have on the environment, including the effects on fish and wildlife, to make recommendations for eliminating or lessening such adverse effects, and to require the Administrator of the Environmental Protection Agency to control the pollution of the environment caused by the discarding of plastics on the land and in water.

IN THE SENATE OF THE UNITED STATES

JUNE 25 (legislative day, JUNE 23), 1986

Mr. CHAFEE (for himself, Mr. STAFFORD, Mr. BAUCUS, Mr. PELL, Mr. SIMON, and Mr. LAUTENBERG) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To require the Administrator of the Environmental Protection Agency to conduct a study of the adverse effects that the pollution of the environment caused by discarding or dumping of plastics on land and in the waters have on the environment, including the effects on fish and wildlife, to make recommendations for eliminating or lessening such adverse effects, and to require the Administrator of the Environmental Protection Agency to control the pollution of the environment caused by the discarding of plastics on the land and in water.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.

SECTION 1. (a) This Act may be cited as the "Plastic Waste Reduction Act of 1986".

(b) The Congress finds and declares that—

(1) when plastic rings and devices, which are increasingly being used to store, carry, and transport a variety of containers, are disposed in the environment, they persist for extended periods of time and have serious adverse impacts on fish and wildlife species and the environment; and

(2) although certain States, which require such rings and devices to break down upon exposure to natural elements, have been largely successful in reducing those impacts, other States have not enacted or enforced such laws.

TITLE I—STUDY OF PLASTIC POLLUTION

SEC. 101. (a) The Administrator of the Environmental Protection Agency (hereinafter referred to in this title as the "Administrator") shall undertake a study for the purpose of determining the adverse effects that the discarding and dumping of millions of pounds of plastics each year have on the environment, including fish and wildlife, within the United States and the oceans, and to enable the Administrator to make recommendations to the Congress as to what

actions might be taken to eliminate or lessen such adverse effects.

(b) Such study shall be carried out with a view to determining the impact on the environment, including fish and wildlife, as a result of the discarding or dumping of such plastic, including—

(1) plastic debris discarded or dumped on land and in all water bodies, including streams, rivers, lakes, bays, estuaries, and oceans;

(2) the discarding or dumping of raw plastic pellets on land and in all water bodies, including streams, rivers, lakes, bays, estuaries, and oceans; and

(3) the discarding or dumping of plastic finished products, including, but not limited to, plastic holders for multi-package beverages, plastic packing bands, fishing nets, or fishing gear, on land and in all water bodies, including streams, rivers, lakes, bays, estuaries, and oceans.

(c) In carrying out the study required by this title, the Administrator shall—

(1) consult with the United States Fish and Wildlife Service, the National Marine Fisheries Service, and all other departments and agencies of the United States engaged in research, investigation, or studies involving, directly or indirectly, the impact of such plas-

tics debris on the environment, including fish and wildlife, and such departments and agencies shall fully cooperate with the Administrator; and

(2) solicit and consider views and recommendations from representative members of the fishing industry, the beverage industry the plastic industry, consumer interest groups, and other interested and affected individuals and businesses.

(d)(1) In making such recommendations as to actions which might be taken to eliminate or lessen the impact of the discarding or dumping of such plastics on the environment, including fish and wildlife (including recommendations to require the use of biodegradable or photodegradable plastics, or recycling), the Administrator shall consider and include in the report a statement as to the environmental, public health, and economic impacts of each such action so recommended.

SEC. 102. On or before the expiration of the eighteen-month period following the date of the enactment of this title, the Administrator shall report to the Congress the results of the study conducted pursuant to this title, together with recommendations in connection therewith. The Administrator shall identify those recommendations as to which the Administrator believes there is existing authority to implement, and those recommendations which will require legislative action by the Congress if they are to be implemented.

SEC. 103. There is authorized to be appropriated such sum as may be necessary to carry out the provisions of this title.

TITLE II—REGULATION TO CONTROL PLASTIC POLLUTION

SEC. 201. As used in this title, the term—

(1) "Administrator" means the Administrator of the Environmental Protection Agency;

(2) "regulated item" means any device which is made, used, or designed for the purpose of packaging, transporting, or carrying multi-packaged cans, bottles, or other containers, and which is of a size, shape, design, or type capable, when discarded, of becoming entangled with fish or wildlife; and

(3) "naturally degradable material" means a material which, when discarded, will be reduced to environmentally benign subunits under the action of normal environmental forces, such as, among others, biological decomposition, photodegradation, and hydrolysis.

SEC. 202. Within eighteen months after the date of the enactment of this title, the Administrator shall require, by regulation, any regulated item to be made of a naturally degradable material which decomposes within a period established by such regulation. The period within which decomposition must occur shall be the shortest period of time consist-

ent with the physical integrity of the item for its intended use.

SEC. 203. Nothing in this Act shall preclude or deny any right of any State or political subdivision thereof to adopt or enforce any regulation, requirement, or standard of performance respecting a regulated item that is more stringent than regulations promulgated pursuant to this Act.

SEC. 204. (a) Any regulation promulgated by the Administrator pursuant to this title shall contain provisions sufficient to assure that adequate recordkeeping and testing requirements for implementing and enforcing such regulation will be carried out.

(b) Any violation of a regulation promulgated by the Administrator pursuant to this title shall be punishable by a fine of not to exceed $25,000, or imprisonment for not more than 12 months, or both.

O

Major Fisheries and Coast Guard Bills Move Through Congress

Driftnet, Plastics Pollution Restrictions Signed Into Law

Congress has approved and the President has signed into law an omnibus package of legislation that I sponsored which affects the fishing industry in Alaska. Included in the bill are provisions which authorize the Governing International Fisheries Agreement (GIFA) between the U.S. and Japan, implement the Convention on Prevention of Pollution at Sea, reauthorize the Sea Grant Program, and implement controls on the use of high seas driftnets.

The Governing International Fisheries Agreement with Japan will run for two years, and will extend a number of joint ventures in the Kodiak area between Alaska fishermen and Japanese companies.

The bill combats the growing problem of ocean dumping of plastics. It implements Annex V of the International Convention for the Prevention of Pollution from Ships. Annex V prohibits the disposal of plastic garbage from ships anywhere in the sea, and establishes the distance from shore where the disposal of other types of garbage, such as glass, paper, and organic garbage, is prohibited.

The Sea Grant Program is also reauthorized under the legislation. This program has been in effect since the 1970's and has been responsible for important marine research activities. The University of Alaska is a Sea Grant University and receives funds under the program for research and academic instruction. The Alaska Marine Advisory Program is also funded under the Sea Grants.

The driftnet provisions in the bill require the Secretary of Commerce, acting through the Secretary of State, to enter into negotiations with those nations that allow their vessels to engage in driftnet fishing on the high seas in order to establish monitoring of those fisheries. The Secretary is also required to negotiate enforcement agreements with these nations. If these agreements are not negotiated and implemented, the U.S. can embargo imports of fish from that nation.

I agree with many Alaska fishermen that this bill does not go far enough. In order to get any agreement, and the negotiations process started, however, we need the approval of many diverse interests. It is my personal intent to continue to seek ways to more closely control driftnet fishing on the high seas. I do not consider this bill to be the final chapter, but rather one more step in my effort to stop this tremendous waste of our marine resources, and eliminate the high seas interception of salmon.

The House also approved and sent to the Senate separate legislation which authorizes $2.6 billion for the Coast Guard to carry out its fisheries enforcement, search and rescue, and drug interdiction missions.

The legislation includes two provisions which were added at my request. The first would authorize relocation assistance, similar to that extended to Department of Defense personnel, to Coast Guard employees in Alaska, and in particular Juneau, who were affected by the reorganization of support and logistics functions to Alameda, California. The Authorization also includes an extension of local hire provisions on Coast Guard contracts.

This Authorization should provide the funding levels necessary for the Coast Guard to carry out its critical missions in Alaska. The local hire and relocation assistance programs are very important to Alaska, and I will continue to work with Senators Stevens and Murkowski to see that they are included in the Senate version of the authorization.

This entire package of bills are important to a maritime state like Alaska. The plastics provisions will protect our coastline and marine mammals. The Sea Grant Program funds important research in the state, and the GIFA provides continued employment to a number of Alaska fishermen.

REFLAGGING BAN SIGNED INTO LAW

The last bill approved by the first session of the 100th Congress was legislation which I sponsored along with three other members of Congress from the Pacific Northwest that will ban the further reflagging of fish processing vessels retroactive to July 28, 1987. This effort is in keeping with the original intent of the 200-mile fishing zone, which was to Americanize our fishery.

The legislation requires that vessels newly licensed after July 28, 1987 have a majority of voting stock owned by U.S. citizens. In addition, the bill requires vessel builds and rebuilds to be performed in U.S. shipyards, and it requires that fishing industry vessels and U.S. merchant vessels be manned by U.S. crewmen.

As I told you in my last newsletter, the reflagging issue has been extremely controversial in Alaska. It has been my intent all through this process to protect the interests of Alaska fishermen and Alaska communities, and I believe that this bill carries out that desire.

It is important to remember that the U.S. fishing industry is composed of a number of diverse interests. A Congressman from the Northeast may have a different perspective on an issue than one from the Gulf Coast or the Pacific Northwest and Alaska. This bill is a compromise between those interests. The important thing is that a reflagging ban has been passed, and we can move forward with building an Alaska-based bottom fish processing industry.

In conjunction with this bill, and in line with my efforts to promote Alaska shore based processing facilities, I have introduced legislation which would impose a fee on the activities of commercial and recreational fishermen and offshore processors outside of State waters in the 200-mile zone. It imposes no new fees on near-shore fishermen or shore-based processors. The revenues raised from these fees would be divided between the Regional Fishery Management Councils, coastal states through the Marine Fisheries Commissions, and the National Marine Fisheries Service,

REPRESENTATIVE ADELHEID HERRMANN'S

QUESTIONS TO

SENATOR TED STEVENS

March 8, 1988 - Joint Session

REPRESENTATIVE HERRMANN:

Thank you, Madam President.

Senator, two issues:

First, I appreciate your comments and point of view on Navy homeporting. I do have some concerns, though, and as you know I have Adak Naval Air Station in my district and I appreciate all the capital improvements projects you have put in there regarding education. But I want to just mention that we had a meeting in Anchorage and your office was involved - Marie Matsuno Nash - we had Bill Sherrill(?) from Murkowski's office and so on - and we had the Adak School Board there.

And - you know we wanted to find out who the one person in the Navy was responsible for education that the people on the island could talk to in the Navy. We never could find out who that one person was that's responsible. Like you say, the commander-in-chief of the Pacific is in Honolulu, and I think the hierarchy and the bureaucracy of the Navy is so great that we could not find one person that people in Adak could go talk to - to find out some of their education concerns.

I realize that homeporting is good for the economy of the state and we really need that, but I'd suggest that people look at Adak as the Navy station in the state and look at some of the problems that they're having - because it seems like with the school foundation funding problem that we're having, Adak is in limbo between the state and the federal government - nobody really wanting to take responsibility for that. And I think that when you're talking turkey, as you say, I think that people have to look at that and really say - What does the state of Alaska have to offer the Navy?

And the other concern is on marine debris. I've been doing quite a bit of work on that and I think that there's federal requirements now that the ship garbage, or the garbage coming off the ships - that has to be disposed of on shore - and a lot of our smaller communities don't have the facilities available there to take all this garbage on shore. And I know that the state is working with the federal government on that, I believe, but that is something that is a concern of mine.

Thank you.

SENATOR STEVENS:

Well, thank you.

That last issue is going to be very difficult. We'll have a transition, there's no question about that, but our country took the lead in the disposal of waste at sea and now it's taking the lead in the whole concept of dealing with plastic pollution. And I think we're going to have to face up to it in our communities, that really it's part of the trash collection. Every community has some kind of trash disposal and we've had our problems with EPA in Anchorage and a lot of other places in terms of how you bring that about.

But it makes no sense for these vessels to be dropping off garbage that includes all these plastic things, whether they're vessels that are not going to touch our shores or whether they're our vessels. I think some of the worst things I've seen is the pictures they've got of little fishes are trying to grow up with the plastic top of a six-pack around them, or when they open up some of these shellfish they find inside of them, anything from the metal part of the top of a can of beer or coke or something else - and those things are going to ruin our number 2 industry if we're not careful. And I think we've been very much involved with it - if there's anything we can do to try and help in the transition--I can't promise money anymore, anymore than you can, unfortunately--but we'll try to work out to see if we can't get some kind of a joint plan to assure that a state that's got half the coastline of the United States is going to be able to take that transition and not get a bunch of orders from some federal agency to put us all behind the eight-ball and back in court again as some of our communities were at the time of the sewage disposal legislation. But--and I hear you on that.

On the first one, I'd like for you to just think out loud with me on that one. Adak is not a normal base. As a matter of fact, Adak is one island, has no civilian community, has 3 major naval bases, 3 separate commanders, one of which is highly classified.

The primary school there is named after Ann. I've been out there many times - she loved the place and liked to go out there and visit the people out there - and they named that school after Ann, after she was killed. And we're trying to work out getting a school in there, as you know, now - but there's no place in the United States where the Navy keeps that kind of school. They do - they have a group overseas that handles education overseas - but I've insisted that they can't treat our people as being overseas. So those base commanders out there are the people they've got to talk to - and unfortunately, the communications sometimes between the civilians involved in the school operation--and they are civilian employees of the Navy and of the state--State employees, some of them--are unwilling

to go through the normal Navy procedure to deal with their problems.

I think they're very good people, I've worked with those education people, it's a great place to send kids to school - you really have got to see it to understand - they work hard with their children out there. But we can't expect the Navy to create a special position to deal with one school. Now that's our problem. Rather, I would hope that you'd realize they're Alaskan kids and you'd create a special position to deal with that school - because I insist they're our kids, not overseas - and yet the state won't put up the money to build a school. We're getting federal money to build that school - which--you know, they pay taxes, by the way--they pay taxes to the state - when you charge them, by the way--I'm not going to get into that one today - But believe me, they are Alaskan residents and they're not being treated as Alaskan residents with regard to the school system. You don't treat them the same as you do the children that are going to school on Elmendorf, or Richardson, or Eielson, or Wainwright.

That gives us in Washington a real tough time. Now, so far we've won. I think you'd agree. We're going to get the money to build that school - we've got federal money to build the Ann Stevens school - we've got federal money for the middle school coming - and I think that we'll be able to finance it. But I'm not going to be able to get the money to finance the administration of one school. You've got to help us solve that - and I think if you don't, we won't get money if they expand - and that base - from what you've been hearing, I hope you realize that Adak's going to continue to expand.

I'm taking a lot of time on it, but let me tell you - I saw the briefing yesterday on where the Soviets are in the North Pacific, and it was a classified one, but I urge you to - we can arrange for you to get a briefing of what's out there if you want to get it. There's more Soviet Navy now in the Pacific than we have worldwide. And if you want to look at it, the most modern vessels they have are in the Pacific - they're new ones - they're new submarines - they're new missile carriers - and some of you - and Max, I don't mean this personally - but you're coming up now with on this home porting the question of what about nuclear accidents and should this be a nuclear-free zone - Those are nuclear-carrying vessels out there the Soviets have got.

I can't get you a nuclear-free zone - if you can't understand this--these are not nuclear vessels that are coming in here right now, by the way - let me hasten to add that - but I can't say they won't be here, and if those guys start playing games with us, I hope to God we have some here - because deterrence is the only thing those people understand. And if you don't recognize the passage of history now that's got us this INF Agreement, I urge you to study it.

They walked away from us 3 times - it wasn't until we built up our strength - we'd indicated that we were going to the new SDI - that the Soviets came back to the table, have stayed at the table, got the first agreement - they're demanding we stay - do you know we're working around the clock now in Geneva on the second agreement? No one believes we can get it, but they're insisting on going ahead with another agreement. We have the capability of responding that they do not have in their system, and I believe that we have the capability of providing the defense that the country needs here.

But the nuclear issue ought not to be part of homeporting - and that the whole question of this Navy base out there ought to be recognized - Did you know that Adak today--let me just tell you this--is the fifth largest community in Alaska - the fifth largest community. There's no civilian community there, but if you had one, it would be the fifth largest city in Alaska - and I think that it oughta be treated--the Alaskans out there oughta be treated as though they were in our state.

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(5) HB493 Rec'd 3/24/88

COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF ALASKA, USDA & SEA GRANT COOPERATING

MARINE ADVISORY PROGRAM, PO BOX 10046, DILLINGHAM, ALASKA 99576

March 24, 1988

Representative Adelheid Herrmann
Alaska State Legislature
Pouch V
Juneau, Alaska 99802

Dear Representative Herrmann,

I'm writing to you on behalf of the University of Alaska's Marine Advisory Program in support of House Bill 493, "An Act relating to Marine Garbage Collection."

As you are aware, the U. S. Congress recently passed a new marine pollution law that prohibits the dumping of any plastics in the oceans at any time and allows the dumping of other kinds of trash outside of 12 miles from shore. For the vast majority of fishermen in Alaska, this means that to abide by the law, they must bring all of their trash back to port beginning December 1, 1988 when the law goes into effect.

Another requirement of the law is that ports that are authorized and charge to moor vessels must have facilities to dispose of all this new trash coming ashore. Recently, I attended a National Sea Grant sponsored conference in Portland concerning the new law. Gary Daily, the harbormaster from Dutch Harbor was also in attendence. He and Doug Insley, president of the Alaska Association of Harbormasters spoke quite convincingly about how many Alaskan ports will be faced with a major problem of disposal of this newly generated trash from the fishing and tourism industries. Dutch Harbor, for example, has over 4,000 port calls a year. It also has a very limited landfill which is scheduled to overflow in two years, and no incineration or other facilities to dispose of waste.

It became clear throughout the conference that those who wrote the new law had not considered the solid waste disposal problem that municipalities are obligated to absorb.

Several steps are being made toward beginning to address this problem. The National Marine Fisheries Service has given the Alaska Department of Environmental Conservation $25,000 to estimate the amount of trash anticipated to be produced by vessel size class. NMFS is also considering funding the Southwest Alaska Municipal Conference toward a small study of possible solutions to Unalaska's particular disposal problems, such as increasing landfill sizes, incineration, recycling etc. It is intended that the information gathered would be specific enough to help Unalaska, yet general enough to be transferable to other communities in the State.

House Bill 493 is a timely and much needed next step in addressing this problem. It will allow a source of seed funds for communities to begin implomonting the most applicable means or collection and disposal of marine trash.

The Marine Advisory Program will be involved in educating marine users about the bill, promoting the return of marine trash to shore, as well as providing technical assistance to coastal communities in meeting waste disposal needs. We are not, however, a source of funds to municipalities.

I enthusiastically support HB 493 and hope to see it pass this session.

Sincerely,

Paula Cullenberg, Agent
Marine Advisory Program

PC/ejn

RECEIVED MAR 25 1988

(6) HB 493

CITY OF KING COVE

P.O. Box 37 • King Cove, Alaska 99612 • (907) 497-2340

March 21, 1988

The Honorable Adelheid Herrmann
Alaska State Representative
P.O. Box V
Juneau, Alaska 99811

RE: House Bill 493

Dear Representative Herrmann:

The City of King Cove applauds your action to introduce HB 493, an act which begins to address the serious marine garbage problem which is confronting coastal communities. We believe the bill is a first step which the State must take to assist its coastal communities to handle the solid waste which inundates communities from processing and fishing activities.

The City would also like the intent of the bill expanded to include monites to plan, construct and implement solid waste collection systems that will be needed to respond to new federal requirements which prohibit ocean dumping. HJR 61, which you introduced, identifies the problems which coastal communities will face in providing the facilities needed to handle this garbage.

The City supports the intent of HB 493 and hopes the legislature can assist coastal communities in meeting solid waste disposal needs associated with the fishing industry.

Sincerely,

Wayne Marshall
City Manager
1007 W. 3rd, Suite 201
Anchorage, Alaska 99501
274-7555

STATE OF ALASKA

STEVE COWPER, GOVERNOR

DEPT. OF COMMUNITY & REGIONAL AFFAIRS

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March 25, 1988

Position Paper

RE: House Bill 493

SPONSOR: Representative Herrmann

Program Effects:

This bill would establish in this department a grants program for municipalities and unincorporated communities to be used for the collection of marine garbage in state water.

Comments:

The problems this bill is designed to address are serious ones, particularly in the Bristol Bay region. The intent is apparently to provide easier access for fishing boats and processors to waste disposal systems in coastal communities to encourage lawful disposal of marine garbage, rather than unlawful dumping. The method adopted by this bill is to give grants to municipalities which may be expected to provide directly, or contract for, floating collection barges, which may then transport the garbage to an appropriate waste disposal site.

This department has less expertise in the areas of waste disposal and environmental quality that are essential to the solution of this problem than, for instance, the Department of Environmental Conservation. However, that department does not currently administer operating grants programs of this nature and is not prepared to go into the grants area. The nature of the proposed program will require a close coordination of effort with DEC, as this department does not have the resources to independently evaluate some of the criteria listed in the bill for consideration in making the grants.

The department has one technical concern that should be addressed. While the bill would make unincorporated communities eligible to receive grants, an unincorporated community by its nature is unable to receive a grant. The department would recommend specifying eligible entities within such a community to receive funds under the program and would propose the approach taken in the State Revenue Sharing Program at ~~AS 29.40.160~~ AS 29.60.140 as a model.

The impacts of marine garbage collection on communities will become even greater with the recent adoption of federal law dealing with the disposal of marine garbage. This bill provides a means to assist municipalities deal with those impacts. However, while the department is sympathetic to these goals, because of the current revenue situation, it is unable to support the bill.

Marty ~~Rutherford~~
Acting Deputy Commissioner

A. AMOS

By Daniel Keith Conner and Robert O'Dell

When Norwegian explorer Thor Heyerdahl crossed the Pacific on the raft Kon-Tiki in 1947, he marveled at how much of the vast expanse of the ocean showed no sign of human presence. When he completed a similar voyage across the Atlantic in 1970, Heyerdahl found hardly a kilometer of his voyage that was free of litter.[1]

It has long been widely recognized that plastic debris in the marine environment is unsightly and threatens tourism at many of the world's beaches. But only recently has there been widespread recognition that plastic debris can be deadly as well. According to an estimate by the Entanglement Network, a coalition of 18 environmental groups in Washington, D.C., lost or discarded plastic is causing the deaths of perhaps 2 million sea birds and 100,000 marine mammals every year.[2]

Heyerdahl was able to view an unspoiled expanse of ocean in 1947 primarily because production of inexpensive synthetic plastics had only recently been perfected and the materials were not yet commonly used. But times have changed, and plastics in the marine environment—including everything from fishing nets to tampon applicators to household wastes—have become inescapable. According to a 1975 U.S. National Academy of Sciences estimate, commercial fishermen alone purposely dump 52 million pounds of plastic packaging into the ocean every year and lose an additional 298 million pounds of plastic nets, lines, and buoys.[3] This figure does not include household wastes, the quantities of which are far greater.

Plastics are manufactured for durability, an important aspect of their persistence in the marine environment. In

Strategies for Intervention

The Tightening Net of Marine Plastics Pollution

fact, even if plastic waste disposal into the ocean should stop tomorrow, its blight would persist far into the future because of the resistance of existing waste to degradation. Beverage six-pack holders, for example, an extremely common form of plastic waste, are reported to have a life expectancy of 450 years in seawater.[4] Consequently, 11 of the 23 U.S. coastal states have prohibited the use of nondegradable beverage rings.[5]

The U.S. Congress has called the proliferation of plastic debris in the ocean a crisis and has appropriated money to study the problem since fiscal year 1985. On April 2, 1986, 30 U.S. senators sent a letter to President Ronald Reagan urging that he give special attention to finding a solution. The letter called for "a coordinated strategy to resolve the increasingly serious and complex problems resulting from the presence of plastic debris in the marine environment."[6]

A consensus has been building that the time has come for action. At this writing Congress has just passed a bill that proposes to reduce the plastics burden on the marine environment (see Robert Livernash, "The Shrinking Environmental Dollar: A Congressional Wrap-Up," page 6).

Proliferation of Plastics

Inexpensive and durable polymer plastics were perfected during World War II and came into widespread use thereafter. By 1960 some 6 billion pounds of plastic resins were produced in the United States; today the figure stands at almost 50 billion pounds.[7] According to industry figures, the volume of U.S. plastics production has overtaken the combined production of metal, glass, paper, and leather.[8] The acceleration has been helped by lower manufacturing costs and elimination of Food and Drug Administration restrictions on the use of plastics in food packaging.

At an early stage of manufacturing, raw plastic takes the form of pellets about the size of match heads. Much of the raw plastic escapes into the watershed during manufacturing and transport.[9] Deteriorating pellets create a plastic "sand" that contaminates many beaches around the world. Although

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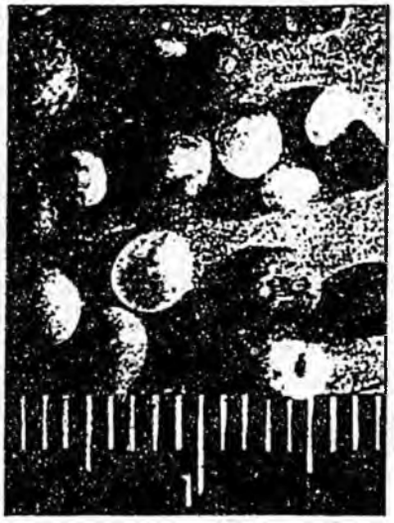


Entanglement in nets and ingestion of plastic wastes can be deadly for marine animals. From left to right, a northern sea lion is entangled in a trawl net; raw plastic pellets (measured here in centimeters) escape into the watershed during manufacturing and transport and are eaten by many bird species; although data on plastics ingestion are preliminary, it is known that animals that eat plastics may starve because of blocked digestive tracts. (Photos: C. Fowler; Robert Day; A. Amos)

long-lived plastic granules will never displace sand grains from the world's beaches entirely, the proportion of plastic to sand is growing in some places.

In addition to the raw plastic, plastic packaging also enters the marine environment in enormous quantities. One 1982 estimate found that merchant ships alone dump some 639,000 plastic containers into the ocean every day.[10] Most plastics are buoyant, eventually washing up on shore where they slowly disintegrate into small pieces. A 1985 study determined that 86 percent of the synthetic debris found on North Pacific beaches was plastic.[11] A 1979 study of the Mediterranean found 60 to 70 percent of the waste was plastic.[12] Near Auckland, New Zealand, concentrations of 100,000 plastic pieces for every meter of beach have been counted.[13] One U.S. National Marine Fisheries Service (NMFS) study of the accumulation of plastic debris on the beaches of the uninhabited Amchitka Island, in the Aleutian Islands off southwest Alaska, found that during a single year more than 550 pounds of plastic litter had accumulated on a beach less than a mile long.[14] The tally in two subsequent years showed a 250 percent increase in both the number and weight of plastic items.

Effects on Marine Life

In the 1970s biologists first reported a surprising observation: sea birds were voraciously eating plastic. Certain species of birds appear to seek out plastic pellets, perhaps mistaking them for the small, shrimplike crustaceans they normally eat;[15] in all, about 50 species of sea birds are known to consume plastics.[16] Reports of plastics ingestion by other animals—fish, turtles, even whales—have also been turning up. Although data on the effects of plastics ingestion remain preliminary, it is known that plastics-eating animals may die of starvation as their digestive tracts become blocked or ulcerated. Toxic chemicals in some plastics may cause death, and thinning of eggshells from toxic substances is also suspected.[17] The deaths of large numbers of endangered green turtles off Costa Rica have been convincingly attributed to consumption of banana bags.[18] Plastic bags and sheeting have been found in the stomachs of dolphins, and minke whales have been observed feeding on plastic debris thrown from commercial fishing vessels.[19] Fishermen have reported seeing humpback, fin, and right whales trailing plastic fishing gear from their mouths. In 1984 two pygmy sperm whales died from complications arising from plastics ingestion.[20] In 1985 two endangered Florida manatees died from ingestion of synthetic debris; one of them had eaten a large piece of plastic sheeting.[21]

Before the development of monofilament plastic, nets were made of cotton, flax, or hemp. Diving birds and mammals easily avoided entrapment because the size of the net fibers made them easily detectable, visually and acoustically. A lost net would sink quickly to the bottom and decompose within months. After World War II, the Food and Agriculture Organization of the United Nations underwrote the development of modern driftnet technology to help provide additional sources of protein for develop-

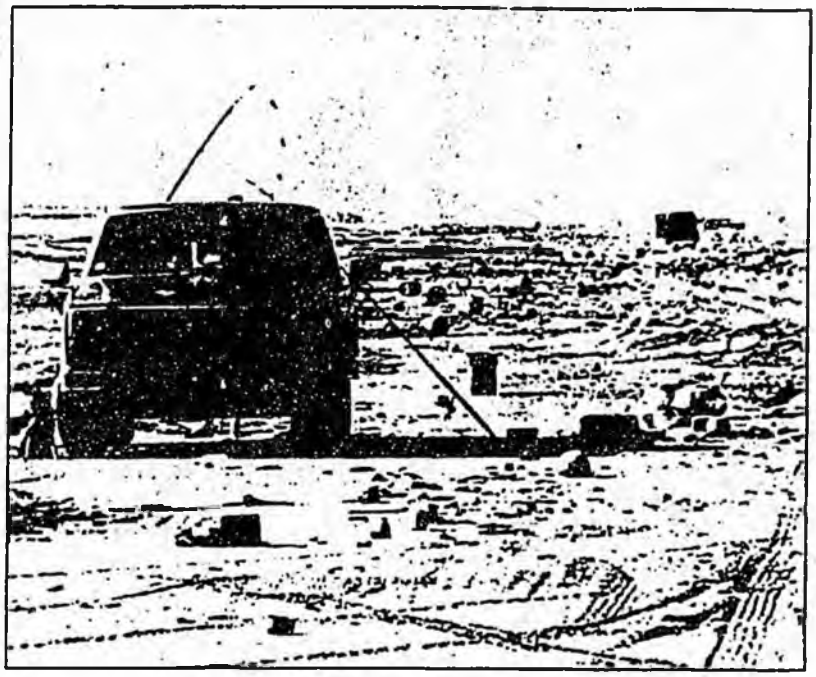
ing countries. By the mid-1970s, monofilament driftnets had come into widespread use, and today, except for a few subsistence fisheries scattered around the world, the use of plastic nets has become nearly universal.

Driftnets vary from 6 to 30 miles in length according to the nationality of the vessel and the nature of the fishery, and are 26 feet deep with two-inch mesh. Attached are weights at the bottom and floats at the top. By adjusting buoyancy, the net can be suspended like a curtain at any desired depth. It is typically set at dusk and retrieved at dawn every day during the 40- to 70-day fishing season.

Of all forms of plastics pollution, the "ghost fishery" of lost or discarded nets may be the most damaging to marine life. A derelict net may continue to entangle victims for two years before it sinks under the weight of its catch. Settled on the seafloor, it continues to entrap benthic life such as crabs and lobsters. Although most derelict nets are inadvertently lost, U.S. government surveillance officers have occasionally witnessed the abandonment of an entire net by a fleeing vessel that was caught fishing illegally.[22] Abandoned nets as long as 9 miles have been retrieved.[23]

High-seas driftnets exact a large toll in incidental catch of marine life. In the North Pacific, a mile-long piece of derelict netting was recovered with 99 dead sea birds and more than 200 dead salmon entangled in it.[24] According to NMFS estimates, some 30,000 northern fur seals are dying annually as a result of entanglement in lost or discarded fishing gear.[25]

During the 1981–1984 commercial seal harvests on the Pribilof Islands, off southwest Alaska in the Bering Sea, 403 fur seals were observed to be entangled in plastic. Sixty-six percent of them were entangled in net fragments, 21 percent in plastic packing bands, and 13 percent in other debris that included lawn-chair strapping and a metal headlight ring.[26] A 4 to 8 percent annual decline in northern fur seal populations on the Pribilof Islands has been observed since the mid-1970s,[27] and the animals are now in the process of being classified as "depleted" under U.S. law.[28] In the past 20 years the sea lion population of the eastern Aleutian Islands has dropped from 50,000 to about 10,000.[29] Concurrent declines in seal populations have been observed elsewhere in the North Pacific, particularly among Hawaiian monk seals.[30]



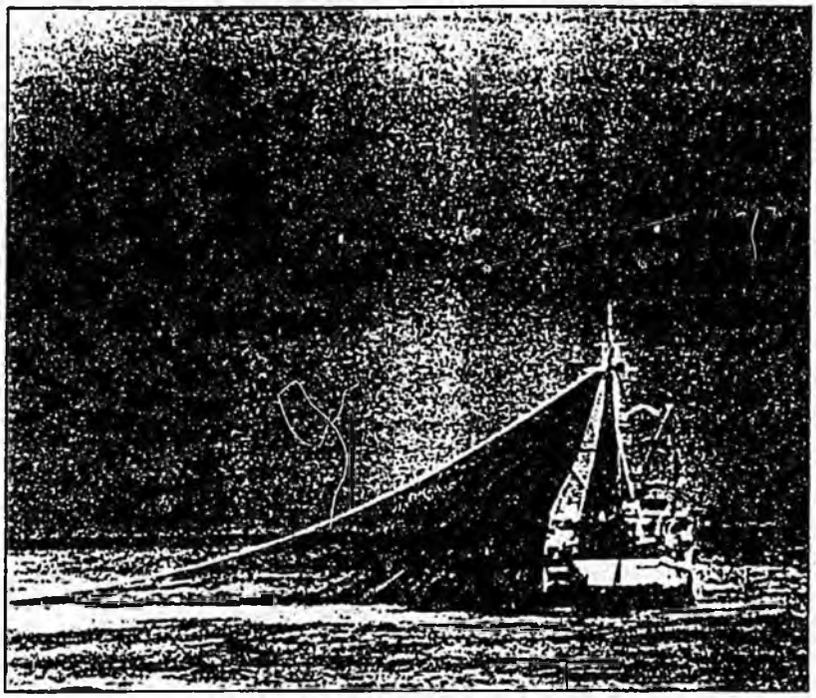
Most plastics are buoyant, eventually washing up on shore where they disintegrate slowly. This stretch of beach on Padre Island off the Texas coast illustrates the state's serious beach litter problem. (Photo: Center for Environmental Education)

The East Asian Driftnet Fisheries

High-seas driftnet fishing is now dominated by the Japanese. During and after World War II, as they lost access to traditional fishing grounds off Siberia and Alaska, the Japanese invested heavily in their driftnet fleet. It has been estimated that the Japanese squid fishery in the North Pacific causes an annual incidental mortality of between 7,000 and 14,000 Dall's porpoise,[31] and that the Japanese high-seas salmon fishery kills between 250,000 and 750,000 sea birds every year,[32] especially puffins, shearwaters, murres, and auklets on the Aleutian Islands, and pelicans elsewhere.

The government of Australia last year banned the use of pelagic driftnets longer than a mile and a half in its exclusive economic zone (EEZ). The ban was a reaction to incidental catch by Taiwanese netters of some 3,000 cetaceans—mostly bottle-nosed dophins—each year. As a result of the ban, the Taiwanese shark, mackerel, and tuna fisheries—about 40 vessels in all—ceased operation.

East Asian fishermen are not necessarily more careless about incidental catch than are fishermen of other nationalities. Indeed, available reports suggest the contrary. For example, Korean skippers must pass an examination in plastics disposal before they are commissioned, and Korean law requires them to keep a daily log to ensure that all plastic trash has been kept aboard. And by all reports, the Japanese, Taiwanese, and Koreans make every effort to retrieve net fragments for recycling.[33] The problem arises not so much from carelessness or insensitivity as from the inevitable loss of some of the thousands of miles of netting used each day.



Driftnets exact a large toll in the incidental catch of marine life. Driftnets used in the Japanese squid fishery and salmon fishery have been estimated to kill from 7,000 to 14,000 Dall's porpoise and from 250,000 to 750,000 sea birds each year. (Photo: Greenpeace)

If the quantities of nets used by the more than 1,600 Japanese, Korean, and Taiwanese vessels active in the North Pacific driftnet fishery are totaled, more than 20,000 miles of these invisible nylon curtains may be set out every night —almost enough to circle the globe.[34] According to Japanese government estimates, 0.05 percent of the nets set every night by Japanese vessels are not recovered[35] (NMFS estimates 0.06 percent).[36] The conservative Japanese estimate means that 10 miles of netting are lost *each night* from Asian vessels alone. For a 70-day fishing season, this means 700 miles of netting floating in the North Pacific each year.

Driftnets need not be derelict to inflict incidental mortality. According to one NMFS report, a single Japanese squid vessel over a 30-day period caused the incidental deaths of 72 marine mammals, including 14 northern fur seals, by entanglement in its nets.[37] If this degree of incidental mortality was typical for the entire squid fleet, more than 125,000 marine mammals would die annually in the driftnets of the squid fishery alone.[38]

The Politics of Protection

Current U.S. law offers numerous mechanisms for protecting the marine environment. But existing provisions have been criticized as ineffective and narrow in scope—a piecemeal approach to an enormous problem.

U.S. Treaties and Statutes

In 1952 the United States, Canada, and Japan concluded the International Convention for the High Seas Fisheries of the North Pacific Ocean.[39] Important though this treaty is, its terms do not adequately address the problem of driftnet incidental mortality. (The treaty is also not sufficiently inclusive: vessels of nonparty nations—principally Taiwan —have been observed harvesting large numbers of salmon on the high seas.)[40] In fact, despite the many miles of netting deployed in the North Pacific for squid, salmon, and billfish, only the Japanese salmon fishery is currently subject to direct regulation by treaty and impartial observation.[41]

The Japanese salmon fishery that operates in the U.S. EEZ (yielding an average of 68 percent of Japan's yearly salmon catch)[42] is subject to monitoring under the U.S. Marine Mammal Protection Act,[43] which requires the salmon fleet to obtain permits for incidental kill of Dall's porpoise, seals, and sea lions. To be eligible to renew the permits, Japan must satisfy the secretary of commerce that its vessels have adopted gear and techniques that "offer the most practicable and effective opportunity for reducing porpoise mortality."[44]

Two U.S. laws pertain to the disposal of plastics at sea: the Federal Water Pollution Control Act (as amended by the Clean Water Act of 1977)[45] and the Marine Protection, Research, and Sanctuaries Act of 1972 (commonly referred to as the Ocean Dumping Act).[46] The Clean Water Act does not directly address the problem of plastic wastes, but it does set limits on the discharge of solid matter and require significant polluters of U.S. waterways to secure federal permits. The Ocean Dumping Act prohibits deliberate dumping of significant quantities of plastics at sea.

Enforcement of both laws has been problematic with regard to plastic wastes, most of which come from small and mobile sources. Small-scale dumping of plastics remains unregulated, and large-scale dumping is hard to detect. In addition, neither law addresses "unintentional" loss of large quantities of plastics.

Funding for Research and Education

Congressional funding for enforcement of existing laws on marine plastics pollution has not kept pace with funding for research and education regarding the problem. In fiscal year 1985 Congress appropriated $1 million to NMFS and private organizations for the study of marine debris and required NMFS to devise a plan for its reduction. Appropriations for 1986 and 1987 amounted

(continued on page 33)

to $750,000 per year. Virtually all of the money has been spent on research, with some also for education to dissuade fishing and shipping fleets from littering. The Center for Environmental Education in Washington, D.C., for example, was awarded a $65,000 contract to help inform the public of the dangers of plastics pollution.[47] In contrast, only $5,000 of the $1 million appropriated in 1985 was earmarked for improving enforcement of existing prohibitions on disposal of plastic wastes at sea.

The MARPOL Convention

Education is, of course, an important first step. But it should be accompanied with enactment of appropriate law. One such law is the 1973 International Convention for the Prevention of Pollution from Ships, often called the Marine Pollution or MARPOL Convention.[48] Annex 5, an "optional" part of the treaty, was offered for ratification in 1978. It prohibits "the disposal into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags."[49] It further forbids disposal of all nonplastic waste, such as glass and metal, within 12 miles of land. Certain shallow and enclosed basins (such as the Mediterranean, Red, and Baltic seas) where shipping traffic is heavy are designated as "special areas," off-limits to garbage dumping. Annex 5 also requires ports of signatory nations to provide adequate garbage disposal facilities.

On November 5, 1987, the U.S. Senate unanimously ratified Annex 5. Even so, the annex has no current effect. Problems of implementation, such as determining who has authority to enforce the treaty in the U.S. EEZ (the host state or the flag state of a vessel), remain unresolved. The annex will enter into force only when nations representing 50 percent of the world's shipping tonnage have ratified it. Currently, 28 nations—with about 46 percent of the world's tonnage—have ratified.

Of the more than 20,000 miles of netting that are set out by Japanese, Korean, and Taiwanese vessels in the North Pacific Ocean each night, about 10 miles may be lost. (Photo: Center for Environmental Education)

Current Legislation

During 1987 eight bills designed both to implement Annex 5 of the MARPOL treaty and to regulate waste disposal domestically were introduced into the 100th Congress. Features of some of the bills passed both houses of Congress in the last days of the 1987 session and were signed by President Ronald Reagan on December 29. Title 2 of the omnibus bill, H.R. 3674, implements the MARPOL Convention annex by prohibiting disposal of all plastic waste within 200 miles of the U.S. coast.[50] (Dumping of all other unprocessed garbage would be prohibited within 12 miles.) The ban would apply to merchant ships, recreational and commercial fishing vessels, offshore oil rigs, and vessels of the Navy and Coast Guard. The bill provides a maximum penalty of $25,000, and the Coast Guard is designated the primary enforcement agency. It further directs both the U.S. National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency to continue studying the sources and effects of plastics pollution and to report on methods of reduction.

Title 4 of the bill, signed by the president, requires the secretary of commerce to enter into negotiations with nations that allow high-seas driftnet fishing, in order to conclude agreements on monitoring and enforcement of driftnet regulations. The bill authorizes an embargo on fish imports from nations failing to reach agreement.[51]

Recommendations for the Future

U.S. ratification of the MARPOL Convention Annex 5 is an important first step in dealing with the problem of persistent plastics in the marine environment. The federal government has taken action on several fronts. Yet even if all proposed legislation were enacted, the problem would still elude ready solution. The laws and treaties discussed above, while essential steps in the right direction, are by themselves inadequate to cope with the enormity of the challenge. A comprehensive and long-term solution will require an imaginative combination of remedies. The following

suggestions are offered as steps toward such a solution, and they will be discussed in ascending order of difficulty of implementation.

• *Tracking and retrieval bounties.* For all vessels fishing in the U.S. EEZ (and elsewhere as permitted by treaty or by reciprocal fishing agreement), a system of mandatory net identification and record keeping is needed. Plastic fishing nets beyond a certain size should be treated in a manner similar to hazardous waste materials with regard to identification, monitoring, and disposal requirements.

Manufacturers should be required to tag plastic nets with indelible identification numbers and sellers to report sales to an appropriate government agency. Commercial fishing vessels should be required to log the loss or disposition of nets and net fragments and should be penalized for failure to report (but not necessarily for loss). The desirability of holding fishermen strictly liable for damage caused by net "spills" should be investigated.

A bounty system could be structured to discourage negligent loss or purposeful discard of nets and to encourage their retrieval. It would require establishment of a pool of funds for that purpose, perhaps supplemented by penalties paid by vessels that lose nets or fail to report the loss. Many fishermen could be persuaded to support this kind of regulation if it could be shown that they would benefit from a reduction in competition from ghost nets.

• *Incentives for proper disposal.* Only when routine disposal of plastic waste in the ocean is prohibited can we effectively begin to clean up what already exists. Even when appropriate prohibitions are in place, how could a cleanup of plastics in the ocean be accomplished? So much plastic trash is now floating in the ocean or is washed up on shore that any generalized bounty system for all plastics would be prohibitively expensive.

Public education programs and voluntary cleanup drives can do much to alleviate the problem of plastic trash in the marine environment. Nineteen of the 23 U.S. coastal states now organize an annual fall cleanup drive staffed entirely by unpaid volunteers. Texas volunteers, for example, collected a ton of trash for every mile of coastline in fall 1986—more than half of it plastic.

For a volunteer approach to be effective, existing disincentives to proper disposal and cleanup must be eliminated or reduced. In a competitive industry like fishing, taking time for proper trash disposal may put the most conscientious fishermen at a competitive disadvantage unless the law requires it of all.

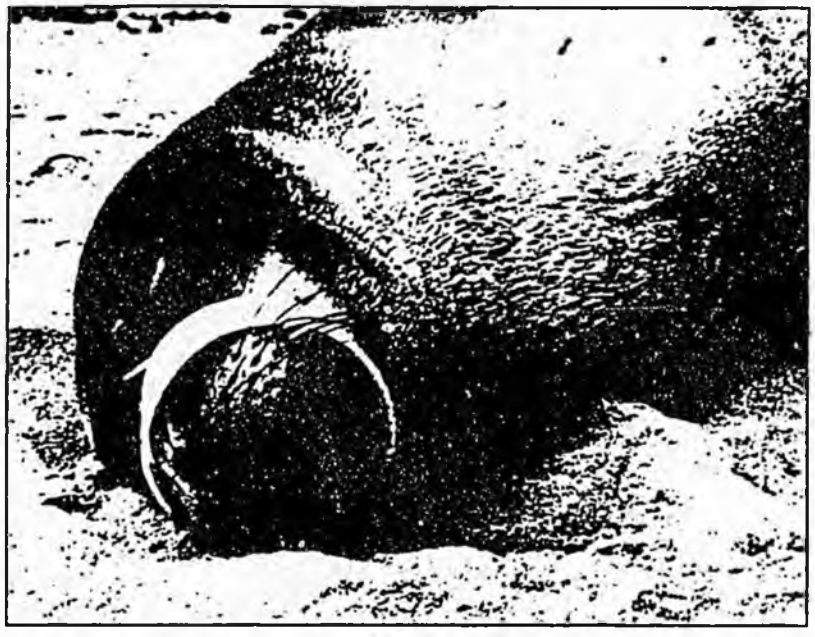
Under current law foreign vessels face a different kind of disincentive. Any vessel that enters a U.S. port from a foreign destination becomes subject to U.S. Department of Agriculture (USDA) regulations if it seeks to dispose of its garbage in port. The regulations require the waste to be incinerated or steam-sterilized and conveyed to USDA-approved landfills.[52] The intent of these regulations is, of course, to prevent landing of harmful insects and microbes. But an unintended side effect is to encourage the disposal of shipboard wastes into the water, especially since few U.S. ports have adequate disposal facilities. Of the 73,000 ships that docked in U.S. ports in 1986, only 3 percent disposed of their garbage in port.[53]

Federal law should require adequate disposal facilities in every port. Fishermen, recreationists, and public-spirited volunteers can effectively remove waste only when they have somewhere to put it. Since recreationists and fishermen would be among the primary beneficiaries of cleanup, construction of port facilities could be financed by a tourism tax, a landing or wharfage surcharge, or other means. State law could grant bonding authority to ports for construction funds, and user fees could be collected to retire the bonds.

Finally, the federal government should enact a "bottle bill" in order to provide economic incentives for proper disposal and recycling of plastic containers. A federal bottle bill might be similar to bottle bills already enacted in a number of states, except that a nominal deposit would be required on *all* nondegradable plastic containers beyond a certain size and weight. As with state bottle bills, containers would be returnable to retailers for deposit refunds, and disposal or recycling arrangements would be the joint responsibility of the manufacturer and the retailer.

• *Mandatory degradability standards.* Next, the federal government

More than half of the trash retrieved in the Texas coastal cleanup drive of fall 1986 was plastic. (Photo: Center for Environmental Education)



Tracking and retrieval bounties, incentives for proper disposal, and mandatory degradability requirements will go a long way toward reducing ocean dumping and eliminating plastics from the marine environment. (Photo: Doris Alcorn)

should establish mandatory degradability standards for plastic consumer items that commonly wind up in the ocean, such as six-pack retainers or plastic tampon inserters. Standards may require biodegradability or photodegradability as appropriate.

The impact of these standards on the plastics industry need not be large. Degradable plastics have in many instances already been found to be price-competitive with nondegradable plastics. Manufacturers now possess the technology to build into modern plastics whatever life expectancy is desired. In states that require it, six-pack rings are now manufactured with photodegradable polyethylene resins (see "Spectrum," *Environment*, June 1987). Phased-in regulations that require timed degradability for consumer items and packaging when exposed to seawater or light should suffice to ensure industry conversion without serious dislocation. Care must be taken, however, to require that the end products of naturally degraded plastics are themselves environmentally inoffensive.

Regulation by requiring degradability standards in plastic consumer items will probably meet little resistance. On the other hand, special consideration will be required for plastic fishing nets, which by their nature must be manufactured for strength and durability. For this reason fishermen can be counted upon to oppose vigorously degradability standards placed on fishing nets. Fortunately, adoption of a bounty and tracking system may make strict degradability standards for fishing nets unnecessary. It may be desirable, however, to require that floats and lead lines be constructed from tear-away or degradable materials, so that nets will sink if not retrieved within a certain period of time.

• ***Controls on manufacturing.*** The time is ripe for a re-examination of the need for disposable plastics in general. Plastics are currently cheap and are manufactured for disposability primarily because of the low market cost of the petroleum from which they are derived. But their hidden costs—which include diminution of the Earth's protective stratospheric ozone layer—are levied upon the environment and upon future generations.

Government can influence the manufacturing of disposable plastics in two ways: either it can impose direct regulation or it can modify economic policies. The latter can be accomplished by, for example, withdrawing subsidies for petroleum extraction and development, or instituting new taxes on consumption of petroleum products. When economic policies are modified to allow the price of petroleum to reflect its actual replacement value (rather than the cost of extraction and development subsidized by a government with an interest in cheap energy for consumers), its price will rise to a level that better reflects the realities of nature. As a stopgap, higher federal taxes on petroleum products are needed to encourage conservation. Until the price of petroleum and the costs of plastics manufacturing rise, few incentives for conservation or recycling will exist.

The long-term health of the marine environment demands greater control of manufacturing and disposal of plastics. Sooner or later the federal government will have to intervene in manufacturing, as it is now doing in disposal. Political realities will probably demand phased adoption of regulations that cause the least dislocation to consumers, the plastics industry, and the petroleum industry, on which the plastics industry is based.

The first step in reducing plastics pollution of the marine environment should include enactment of regulations that require a tracking and bounty system for plastic fishing nets, mandatory disposal facilities in all ports, and degradability standards for all plastics intended for disposal or where risk of loss is high. Second, the government should provide incentives for conservation by adopting economic policies that allow energy and manufacturing costs to rise to a level that reflects replacement value. And finally, if government intervention is still needed, controls on the manufacturing of plastics should be adopted, either directly by regulation or indirectly by taxation. The health of populations of marine animals and of the fishing and coastal tourist industries will continue to suffer until these steps are taken.

NOTES

1. *New York Times*, 10 May 1970, 8.

2. K. Freeman, "We're Choking the Ocean with Plastics," *National Fisherman*, January 1987, 4–5. For greater detail and more recent studies on the sources and effects of plastics pollution in the marine environment, the reader is referred to the proceedings of the Sixth International Ocean Disposal Symposium held in 1986. Twelve papers from the symposium, entitled "Plastics in the Sea," were published in *Marine Pollution Bulletin* 18(1987).

3. U.S. National Academy of Sciences, "Marine Litter," in *Assessing Potential Ocean Pollutants: A Report of the Study Panel* (Washington, D.C.: National Academy Press, 1975), 405.

4. Freeman, note 2 above, 4.

5. As of November 1987, Alaska, California, Connecticut, Delaware, Massachusetts, Maine, New Jersey, New York, Oregon, Rhode Island, and Vermont have adopted such legislation.

6. *Ocean Science News* (Washington, D.C., Nautilus Press), 14 April 1987, 1.

7. Society of the Plastics Industry, 1986, cited in *Plastics in the Ocean: More Than a Litter Problem* (Washington, D.C.: Center for Environmental Education, 1987), 1.

8. Ibid.

9. D. H. S. Wehle and F. C. Coleman, "Plastics at Sea," *Natural History*, February 1983, 26.

10. P. V. Horsman, "The Amount of Garbage Pollution from Merchant Ships," *Marine Pollution Bulletin* 13(1982):167.

11. M. L. Dahlberg and R. H. Day, "Observations of Man-Made Objects on the Surface of the North Pacific Ocean," in R. S. Shomura and H. O. Yoshida, eds., *Proceedings of the Workshop on the Fate and Impact of Marine Debris*, 27-29 November 1984, Honolulu, Hawaii, Technical Memorandum NMFS-SWFC-54 (Washington, D.C.: U.S. National Oceanic and Atmospheric Administration, 1985), 344.

12. R. J. Morris, "Floating Plastic Debris in the Mediterranean," *Marine Pollution Bulletin* 11(1980):125.

13. R. H. Day, D. H. S. Wehle, and F. C. Coleman, "Ingestion of Plastic Pollutants in Marine Birds," in Shomura and Yoshida, note 11 above, 198.

14. T. R. Merrell, Jr., "Fish Nets and Other Plastic Litter on Alaska Beaches," in Shomura and Yoshida, note 11 above, 160.

15. Day, Wehle, and Coleman, note 13 above.

16. Ibid.

17. Ibid.

18. Wehle and Coleman, note 9 above, 24.

19. D. W. Laist, "An Overview of Impacts Associated with Lost and Discarded Fishing Gear, Packaging Material, and Other Persistent Synthetic Materials on Living Marine Resources," *TCS [The Coastal Society] Bulletin* 9(1986):6.

20. *Texas Shores* (College Station, Texas, Texas Sea Grant Program) 20(1987):15.

21. Laist, note 19 above.

22. R. Eisenbud, "Problems and Prospects for the Pelagic Driftnet," *Boston College Environmental Affairs Law Review* 12(1985):479.

23. L. L. Jones and R. C. Ferrero, "Observations of Net Debris and Associated Entanglements in the North Pacific Ocean and Bering Sea," in Shomura and Yoshida, note 11 above, 183.

24. A. R. DeGange and T. C. Newby, "Mortality of Seabirds and Fish in Lost Salmon Driftnets," *Marine Pollution Bulletin* 11(1980):322.

25. U.S. National Marine Fisheries Service biologist Charles Fowler, quoted in N. Martin, "The Ties That Bind," *Texas Shores* (College Station, Texas, Texas Sea Grant Program) 20(1987):20.

26. J. Scordino, "Studies of Fur Seal Entanglement, 1981–84, St. Paul Island, Alaska," in Shomura and Yoshida, note 11 above, 278.

27. Laist, note 19 above, 10.

28. *Marine Mammal News* (Washington, D.C., Nautilus Press), November 1986, 1.

29. Laist, note 19 above, 10.

30. Ibid.

31. J. Hinck, "Dirge of the Driftnets," *Defenders*, November/December 1986, 20.

32. Ibid.

33. Freeman, note 2 above, 5.

34. Eisenbud, note 22 above, 477.

35. Hinck, note 31 above.

36. Eisenbud, note 22 above.

37. Hinck, note 31 above, 18.

38. Ibid., 19. The driftnet salmon fishery of the North Pacific may be even more destructive than the squid fishery, although the Japanese fleet is reportedly taking steps to cut its incidental catch. Japanese vessels must now replace pelagic salmon driftnets after only one season of use, and they are replacing lost or recycled nets with thicker filaments to make them more visible to larger animals. See National Marine Fisheries Service, "Final Action Plan," Dall's Porpoise Program (Washington, D.C., 1984), 16.

39. International Convention for the High Seas Fisheries of the North Pacific Ocean, 4 U.S.T. 380, T.I.A.S. No. 2786, amended in 1976, T.I.A.S. No. 9842.

40. Eisenbud, note 22 above.

41. Ibid., 478.

42. Ibid., 487.

43. 16 U.S.C. §§1361–1407.

44. 16 U.S.C. §1034(a)(2). Despite Japan's vigorous challenge to reduced quotas at a December 1986 hearing, an administrative law judge recommended that quotas be further reduced for any permit renewals. Japan's current permit, effective 10 June 1987, limits incidental catch to 6,039 Dall's porpoise over the next three years (with a limit of 2,942 in any one year). Incidental catch of even one seal or sea lion will fill the quota, since the National Marine Fisheries Service considers their populations fully depleted. See *Marine Mammal News* (Washington, D.C., Nautilus Press), April-May 1987, 1.

45. 33 U.S.C. §§1251 et seq.

46. 33 U.S.C. §§1401 et seq.

47. The Center for Environmental Education's *Plastics in the Ocean: More Than a Litter Problem* (see note 7 above) is the most comprehensive review of the problem yet published.

48. 1973 International Convention for the Prevention of Pollution from Ships (MARPOL Convention), 26 U.S.T. 2403, T.I.A.S. No. 8165, implemented in U.S. law at 33 U.S.C. §§1901–1911.

49. Ibid.

50. Title 2 is the final version of H.R. 940, the "Plastic Pollution Research and Control Act."

51. Title 4 is the final version of H.R. 3584, the "Driftnet Fishing Control Act."

52. 7 C.F.R. §330.400; 9 C.F.R. §94.5.

53. N. Martin, "On the Edge," *Texas Shores* (College Station, Texas, Texas Sea Grant Program) 20(1987):5.

CLARIFICATION

As indicated in the text but not the page 39 figure of Rutherford Platt's article on coastal wetlands in the November 1987 issue, the access highway and railroad spur on Sears Island are proposed developments.

Introduced: 2/15/88
Referred: Community & Regional
Affairs and Finance

IN THE HOUSE BY HERRMANN AND SUND

HOUSE BILL NO. 493

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to marine garbage collection; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 44.47 is amended by adding a new section to read:

ARTICLE 12A. MARINE GARBAGE COLLECTION GRANTS.

Sec. 44.47.750. MARINE GARBAGE COLLECTION FUND. (a) There is established in the department the marine garbage collection fund as an account in the general fund. The fund consists of money appropriated to it. Money in the fund may be used to make grants to municipalities and unincorporated communities for the collection of marine garbage in state water.

(b) The department shall adopt regulations for the determination of entitlement to marine garbage collection grants, application and approval of grants, and administration of grants.

(c) In making grants under this section, the department shall consider

(1) the number of vessels engaged in commercial fishing or related activities, including processing, in water adjacent to or within the applicant's jurisdiction;

(2) the volume of garbage that is dumped by vessels in the area or that drifts into the area after being dumped by vessels operating outside state water;

(3) the effect of marine garbage on the environment in the area;

(4) other resources available to the applicant; and

(5) other factors that the department establishes by regulation that are relevant to a determination of the applicant's need for financial assistance to alleviate the locality's marine garbage problem.

* Sec. 2. This Act takes effect immediately under AS 01.10.070(c).