

the Forest Service RARE II report to Congress.

Additional areas of concern that need attention in any oversight hearing include the planning process itself. Planning need not be an end in itself, but it should approach an orderly, timely process that recognizes changing needs and a balanced program. We must also focus on the situation where the entire forest plan is held up because of an administrative or judicial appeal. The present situation results in too many needed programs being held hostage while a dispute runs its appeal process.

I do not think that I am going to say we cannot meet the challenge. I think we are going to have some adjustments to make that we do not like to make. I think some of it is going to be unpleasant. But I think we can do a far better job if we understand what the nature of the problem is and we will take a cold, hard, calculating, dispassionate look at the kinds of problems that confront this country and this State. If we will do that we will maximize our success and minimize the areas of our failure to meet the future problems. And I think we can do better than we are doing now.

ORDER TO PROCEED TO CONSIDERATION OF H.R. 4297 TODAY

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that upon disposition of this measure the Senate proceed to the consideration of Calendar Order No. 456, H.R. 4297, an act to amend the Marine Protection, Research, and Sanctuaries Act of 1972 to authorize appropriations to carry out the provisions of such act for fiscal year 1978.

The PRESIDING OFFICER. Without objection, it is so ordered.

ENDANGERED AMERICAN WILDERNESS ACT OF 1977

The Senate continued with the consideration of H.R. 3454.

The PRESIDING OFFICER. If there be no further amendment to be proposed, the question is on agreeing to the committee amendment in the nature of a substitute, as amended.

The committee amendment in the nature of a substitute, as amended, was agreed to.

Mr. RIBICOFF. Mr. President, I ask for the yeas and nays on final passage of the bill.

The PRESIDING OFFICER. Is there a sufficient second?

There is a sufficient second.

The yeas and nays were ordered.

The PRESIDING OFFICER. The question is on the engrossment of the committee amendment and third reading of the bill.

The amendment was ordered to be engrossed, and the bill to be read a third time.

The bill was read a third time.

Mr. CHURCH. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ROBERT C. BYRD. Vote.

The PRESIDING OFFICER. Do Senators yield back the remainder of their time?

Mr. CHURCH. Mr. President, I yield back the remainder of my time.

Mr. HANSEN. I yield back the remainder of my time.

The PRESIDING OFFICER. All time is yielded back.

The bill having been read the third time, the question is, Shall it pass? The yeas and nays have been ordered, and the clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. CRANSTON. I announce that the Senator from South Dakota (Mr. ABOUREZK), the Senator from Minnesota (Mr. HUMPHREY), the Senator from Arkansas (Mr. McCLELLAN), and the Senator from South Dakota (Mr. MCGOVERN) are necessarily absent.

I further announce that, if present, and voting, the Senator from Minnesota (Mr. HUMPHREY) would vote "yea."

Mr. STEVENS. I announce that the Senator from New Jersey (Mr. CASE), the Senator from Michigan (Mr. GRIFFIN), the Senator from South Carolina (Mr. THURMOND), and the Senator from Texas (Mr. TOWER) are necessarily absent.

I further announce that, if present and voting, the Senator from New Jersey (Mr. CASE) and the Senator from South Carolina (Mr. THURMOND) would each vote "yea."

The result was announced—yeas 89, nays 3, as follows:

[Rollcall Vote No. 573 Leg.]

YEAS—89

Allen	Garn	Morgan
Anderson	Glenn	Moynihan
Baker	Gravel	Muskie
Bartlett	Hansen	Nelson
Bayh	Hart	Nunn
Bellmon	Haskell	Packwood
Bentsen	Hatch	Pearson
Biden	Hatfield	Pell
Brooke	Hathaway	Percy
Bumpers	Heinz	Proxmire
Burdick	Helms	Randolph
Byrd	Hollings	Ribicoff
Harry F., Jr.	Huddleston	Riegle
Byrd, Robert C.	Inouye	Roth
Cannon	Jackson	Sarbanes
Chafee	Javits	Sasser
Chiles	Johnston	Schmitt
Church	Kennedy	Schweiker
Clark	Laxalt	Sparkman
Cranston	Leahy	Stafford
Culver	Long	Stennis
Curtis	Lugar	Stevens
Danforth	Macnussen	Stevenson
DeConcini	Mathias	Stone
Dole	Matsunaga	Talmadge
Domenici	McClure	Wallop
Durkin	McIntyre	Welcker
Eagleton	Melcher	Williams
Eastland	Metcalfe	Young
Ford	Metzenbaum	Zorinsky

NAYS—3

Goldwater Hayakawa Scott

NOT VOTING—8

Abourezk	Humphrey	Thurmond
Case	McClellan	Tower
Griffin	McGovern	

So the bill (H.R. 3454), as amended, was passed.

The title was amended so as to read:

An act to designate certain endangered public lands for preservation as wilderness, and for other purposes.

Mr. CHURCH. Mr. President, I move to reconsider the vote by which the bill was passed.

Mr. ROBERT C. BYRD. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT AMENDMENTS

The PRESIDING OFFICER. Under the previous order, the Senate will now proceed to the consideration of H.R. 4297, which the clerk will report.

The assistant legislative clerk read as follows:

A bill (H.R. 4297) to amend the Marine Protection, Research, and Sanctuaries Act of 1972 to authorize appropriations to carry out the provisions of such act for fiscal year 1978.

Mr. HOLLINGS. Mr. President, while the Senate Commerce Committee no longer has jurisdiction over title I of that act, the part which regulates the dumping of land-generated wastes at sea, the committee does assert jurisdiction over titles II and III (as does the Environment Committee). Title II deals with marine research in general, not just that related to ocean dumping. Title III establishes a general program of creating marine sanctuaries. We believe the provisions in H.R. 4297 dealing with titles II and III are acceptable.

I believe the Senate should pass H.R. 4297 and indefinitely postpone S. 1527 and S. 1425. The Senate Committee on Environment and Public Works, which has jurisdiction over title I of the act, concurs in this approach.

Mr. President, I am waiting for the arrival of my counterpart on the other side of the aisle to be here and make his statement.

This measure may be passed, I think, on a voice vote, unless someone asks for the yeas and nays. It is just the authorization act of the ocean dumping program, entitled the Marine Protection, Research, and Sanctuaries Act.

Mr. ROTH. Mr. President, the purpose of the amendment I had intended to propose is to remove any economic incentive which an ocean dumper might have to violate orders to stop ocean dumping. It does this by automatically imposing on the dumper a penalty equal to the economic benefit realized from failure to comply with an order to halt or reduce ocean dumping.

As the Senators from Maine and Vermont may recall, the Marine Protection, Research, and Sanctuaries Act was enacted in late 1972. It represented the adoption of a national policy that contamination of the great natural assets of the oceans would not be tolerated. Specifically, the law's purpose was to "prevent or strictly limit the dumping into oceans waters of any material which would adversely affect human health, welfare or amenities, or the marine environment, ecological systems, or economic potentialities." Pursuant to

the authority conferred on it by this law, the Environmental Protection Agency has ordered the city of Philadelphia—which dumps 140 million pounds of sewage sludge off the Delaware and Maryland coast each year—to halt all ocean dumping by 1981, and cut it in half by 1979.

It is worth noting, I believe, that ocean dumping is considerably less expensive than the various land disposal alternatives. The cheapest land disposal method is landfilling, which is twice as expensive as ocean dumping. The more environmentally acceptable alternatives such as pyrolysis are three to four times the cost of ocean dumping. Assuming that ocean dumping costs approximately \$33 per dry ton, a city such as Philadelphia can save millions of dollars a year by ocean dumping sewage sludge.

The savings, of course, are illusory. The people upstream may be saving money, but that is because the people downstream are bearing the cost. In my view, money being saved by Philadelphia is coming out of the pockets of Delaware, Maryland, and New Jersey taxpayers. The ultimate results of ocean dumping are demonstrated in the New York Bight, where a sludge blanket several feet deep has accumulated.

Mr. MUSKIE. I am aware, and I think the other members of our committee also know, of the problems which are caused by ocean dumping. Indeed, I believe the public concern over ocean dumping is the principal reason that the bill as passed by the other Chamber includes a requirement that dumping cease by 1981. I think this is a serious problem and we most certainly would have addressed it this session, but for the urgent need to enact the water and air legislation, which has consumed all of our time.

Mr. STAFFORD. This is certainly a serious problem, and I think the Senator from Delaware is offering a possible solution which should be studied carefully. As he probably knows, noncompliance penalties are included in two other environmental pollution areas. We have already written such penalties into our clean air legislation and, assuming that there is no change in the proposed amendments to the Clean Water Act, the same will happen in that area. So there is certainly precedent for what the Senator is suggesting.

Mr. ROTH. Absolutely, I would like to say that this penalty is my own idea, but I must confess I appropriated it from a bill reported by your committee, I believe the air amendments.

It is precisely because this idea is not novel that I hope public hearings can be held early in the next session, perhaps January or February.

Mr. MUSKIE. I think that is possible. It is clear that we must address this problem next year so some concrete action can be taken, and our chances of actually enacting something will be improved by an early start. I could agree to hearings in January or February, if that is acceptable to the Senator from Vermont.

Mr. STAFFORD. I discussed this matter earlier today with the Senator from

Delaware and certainly see no problems right now with holding hearings when we return next year. I would agree to that.

Mr. ROTH. I would appreciate that and, if it is agreed, will withdraw my amendment so that the Senate can move on to other pressing business. But I would ask unanimous consent that my amendment be printed in the Record at this point so it will be available to others for reference.

There being no objection, the amendment was ordered to be printed in the Record, as follows:

At the end of the bill, add the following: Sec. 2. Section 105 of the Marine Protection, Research, and Sanctuaries Act of 1972 is amended by adding at the end thereof the following:

"(1) Any ocean dumping permit issued under section 102 of this Act, or any condition of which requires the permit holder to cease or reduce ocean dumping by a date certain, shall be amended to include a delayed compliance penalty, calculated and established pursuant to this section. Such penalty shall be imposed on any permit holder who does not cease or reduce ocean dumping by the date specified or in the amount required in said permit unless the reason or reasons for the permit holder's non-compliance were beyond the control of the permit holder.

"(2) As an enforceable interim step under a permit, any condition of which requires the permit holder to cease or reduce ocean dumping by a date certain, issued under section 102 of this Act, the permit holder shall furnish to the Administrator information containing a detailed description of the technology or systems proposed to achieve compliance and the estimated cost of compliance, including capital costs, debt service costs, the estimated schedule of expenditures to comply, and the estimated annual costs of operation and maintenance of any technology or systems required in order to maintain such compliance, together with such information as the Administrator may require on the economic value which a delay in compliance may have for the permit holder.

"(3) A notice of receipt of information pursuant to paragraph (2) shall be published in the newspapers in general circulation in each affected State, and such notice shall set forth where copies of the information are available for inspection and, for a reasonable charge, copying.

"(4) Within sixty days following the date of publication of the notice issued under paragraph (3) of this subsection there shall be published in the newspapers in general circulation in each affected State (and, as appropriate, the Federal Register) the proposed delayed compliance penalty applicable to the permit holder, with an announcement of an opportunity for a public hearing on such action.

"(5) Such proposed delayed compliance penalty, determined in accordance with guidelines published by the Administrator, shall be a monthly payment in an amount no less than the monthly equivalent of the capital costs of compliance and debt service over a normal amortization period, not to exceed ten years, operation and maintenance costs foregone as a result of noncompliance, and the economic value which a delay in compliance may have for the permit holder.

"(6) The Administrator shall take final action establishing such delayed compliance penalty within sixty days after the date of publication of the proposed penalty under paragraph (4).

"(7) In the event a permit holder contests the delayed compliance penalty established under this subsection, the permit holder may within sixty days after publication seek re-

view of such penalty in the appropriate United States district court.

"(8) Except as provided in paragraph (9), in no event shall any challenge or review taken under this subsection operate to stay or otherwise delay the obligation of a permit holder not in compliance to commence monthly payment of the delayed compliance penalty as determined by the Administrator, pending the outcome of any such review.

"(9) In any challenge of the imposition of the penalty based on an allegation that the failure to comply was due to reasons beyond the control of the permit holder, the obligation to commence monthly payment of the delayed compliance penalty may be stayed pending the outcome of such challenge: *Provided*, That, as a condition of such stay, the permit holder shall post a bond or other surety in an amount equal to the potential liability for such penalty during the period of the stay.

"(10) If a permit holder is successful in any challenge or review proceedings under this subsection, the court may award such relief as necessary, including cancellation of the bond, rebate of any payments, or adjustment of the amount of payments required by the order.

"(11) Willful failure to make any payment required by an order under this subsection of section 102 of this Act or to submit information required under this section shall, in addition to liability for such payments, subject the permit holder to a penalty under subsection (b).

"(12) Any person who violates any other provision of this subchapter, or of the regulations promulgated under this subchapter, or a permit issued under this subchapter, shall be liable to a civil penalty of not more than \$50,000 for each violation to be assessed by the Administrator. No penalty shall be assessed until the person charged shall have been given notice and an opportunity for a hearing of such violation. In determining the amount of the penalty, the gravity of the violation, prior violations, and the demonstrated good faith of the person charged in attempting to achieve rapid compliance after notification of a violation shall be considered by said Administrator. For good cause shown, the Administrator may remit or mitigate such penalty. Upon failure of the offending party to pay the penalty, the Administrator may request the Attorney General to commence an action in the appropriate district court of the United States for such relief as may be appropriate."

Mr. MOYNIHAN. Mr. President, there are coastal cities that have few alternatives to the deposition of sewage sludge in the ocean. New York City is one of them: It simply does not have presently available alternatives to ocean dumping; nor, do I expect it to have an alternative by December 31, 1981, the deadline imposed by this act.

In cases such as this, a municipality should be afforded the time to find a viable alternative to ocean dumping. It is my understanding that section 4(b) would provide such an extension beyond the deadline. Section 4(b) defines the term "sewage sludge" with respect to the anticipated impact of its dumping on "human health, welfare, amenities, or the marine environment, ecological systems, or economic potentialities." If the Administrator finds that the ocean dumping of waste does not unreasonably affect any of these characteristics of the water, then he may grant an extension beyond the date in section 4(a).

Is my understanding correct?

Mr. MUSKIE. Yes, the Senator's interpretation of the act is correct. However,

I must stress to the Senator from New York, that the test in the bill is a strict one. The sludge may not have a deleterious impact on the marine environment. The key word in section 4(b), open for the Administrator's interpretation, is "unreasonably."

Mr. MOYNIHAN. I understand. I thank the distinguished Senator from Maine.

Mr. KENNEDY. Mr. President, I would like to inquire into the meaning of "sewage sludge." In New England, we have some of the finest fishing in the world in the Georges Bank area. This area is naturally enriched with nutrients for the fish that abide in that area by ocean water which is carried over the Continental Shelf. It is further enriched by dissolved materials coming from our rivers and from decomposing fish. Many scientists have told us that man could further enrich the area by the proper dispersal of organic waste in these fishing grounds. I am not talking about lump deposits. But I am talking about the proper spreading of such wastes away from any beach or recreational areas, where those wastes would be helpful to the fish in the area, or at least would not have a harmful affect. I assume that this kind of disposal would not constitute the type of waste which is covered in the definition in section 4(b) of H.R. 4297.

Mr. HOLLINGS. The Senator is correct in his assumption.

Mr. SARBANES. Mr. President, I rise in support of H.R. 4297, authorizing appropriations for fiscal 1978 to carry out the Marine Protection Research and Sanctuaries Act of 1972. I wish to express my particular support for the amendment in the bill which prohibits the dumping of harmful sewage sludge in the ocean after December 31, 1981.

Mr. President, since 1973, sewage sludge from the city of Philadelphia has been dumped at a site 35 miles offshore of Ocean City, Md. This site was selected by the Environmental Protection Agency without any prior assessment of the environmental effects on the area which the dumping would have, let alone a complete environmental impact statement. In addition, the site was designated by EPA for ocean dumping with the full knowledge that it was part of an important commercial and sports fishing area.

The continued use of the site offshore of Maryland has led to the deterioration of the marine environment. Samples of benthic organisms and sediments from the site have revealed high accumulations of heavy metals, high organic carbon counts, high fecal coliforms in shellfish, and a high mortality rate for Mahogany clams in the area.

The environmental degradation of the site resulting from the continued dumping has brought about the inevitable: The closure of the site to shellfish harvesting by the Food and Drug Administration. This has had a direct, adverse impact on the commercial and sports fishing industry of Ocean City, Md. In addition, the continued dumping raises the haunting fear of Marylanders that the sludge may wash up on the beautiful beaches

of Ocean City, our State's premier ocean resort.

Mr. President, it is clear that if the dumping of sewage sludge offshore of Maryland and other east coast States is to be halted, a deadline must be established. Many of the municipalities now dumping have not undertaken, in a serious way, the effort to find alternative disposal methods for the increasing amount of sewage sludge which they are generating.

Since ocean dumping remains a cheap way to dispose of this sludge, there will be great pressure to keep dumping it in the ocean after any administratively set deadline. The 1981 deadline for all dumping of harmful sewage sludge will provide clear notice that these municipalities will have to develop alternatives so that ocean dumping will end once and for all.

OCEAN DUMPING

Mr. MATHIAS. Mr. President, the important amendment to the Sanctuaries Act before us today requires the Environmental Protection Agency to end the dumping of sewage sludge into ocean waters after 1981. Many of my constituents have voiced their concern with the House language of this bill which limits such a ban to sewage sludge that "unreasonably degrade(s) or endanger(s) human health, welfare, amenities, or the marine environment, ecological systems, or economic potentialities." In 1978 alone, the EPA has authorized the city of Philadelphia to dump 95 million gallons of sewage sludge at the Cape May site. How sewage sludge dumped in such huge quantities could be anything but "unreasonably degrading" to human health and the environment is difficult to imagine. Under the present law, there is a presumption that the dumping of sewage sludge offshore is inherently harmful. This amendment would require that the opponents of ocean dumping prove that such dumping is not degrading to the environment.

I must express my concern over EPA's continued granting of sewage dumping permits for the "Philadelphia" or "Cape May" site as an ocean dumping site. This area is only 35 miles off the Maryland and Delaware coasts on the Continental Shelf. The evidence accumulated over the last 4 years leaves no room for doubt that the dumping of sewage sludge wastes by Philadelphia and Camden has had a serious adverse impact on the marine environment at the Cape May site. Specifically, I note that—

The site, a rich commercial shellfishery, has now been closed by the Food and Drug Administration. To date, the FDA has closed over one-fifth of this Nation's shellfishing beds due to pollution of the beds, making the shellfish unfit for human consumption. The FDA as well as the State of Maryland testified before the EPA Region III Administrator that while ocean quohogs are not now being harvested at the dump site, it is only a matter of time until the increasing demand for this species leads to commercial exploitation in and around the site. This is of special concern inasmuch as this species of clams would be eaten raw or only partially cooked and thereby

would have particular potential for transmitting enteric organisms to man. Maryland also presented data which indicated that sea scallops are currently being harvested and that in the usual method of processing on board ship, the entrails of the scallops are dumped overboard where they become food for higher orders of marine life. It is also a well-known and documented fact that the area is widely used for commercial and sport fishing.

There is ominous evidence of a buildup of dangerous, persistent heavy metals, PCB's, and other toxic substances.

EPA must require cities and companies who view the Atlantic Ocean as their "infinite sink" to pursue vigorously alternatives to ocean dumping. Maryland believes that those alternatives are available now. We can point to our successful experience in trenching and composting municipal sewage sludge from the Blue Plains sewage treatment facility here in the District of Columbia.

Until land-based alternatives can be implemented, EPA must permit dumping only at those ocean sites where the environmental harm will be minimized to the fullest degree possible. That was the fundamental purpose of the Marine Protection, Preservation, and Sanctuaries Act passed by Congress in 1972. The act required EPA to consider a number of specific criteria in choosing ocean dumping sites. Congress put a specific provision in the act requiring EPA to "utilize wherever feasible locations beyond the edge of the Continental Shelf." That provision represents a judgment by Congress, a judgment that has been borne out in fact, that in most situations dumping off the edge of the Continental Shelf will cause less environmental harm than dumping in the near shore area where productive fisheries are located and where the risk to human beings is greater.

The Ocean Dumping Act is now over 4 years old. During that time, Maryland has consistently warned at public hearings and in the courts that dumping by Camden, Philadelphia, and chemical manufacturers at the Cape May site has caused serious degradation of the marine environment. EPA's own monitoring studies confirm Maryland's concerns, and EPA should be commended for moving Camden's dumping to the "106 site" which is located off the edge of the Continental Shelf.

I would think that the evidence of actual environmental harm at the Cape May site and the availability of the "106" close the Cape May site immediately. EPA has full power under the Ocean Dumping Act to do so.

Many of my colleagues represent landlocked States that treat and dispose of their sewage sludge using land-based sites and appropriate technology. They may therefore have a difficult time understanding the controversy concerning offshore dumping. But for those of us from States bordering the oceans it is an extremely serious threat to our marine life, human health, and our economies.

I know that my colleagues would share my concern if they knew of the volume and variety of toxic materials that are

dumped daily onto the Continental Shelf.

Ultimately, this debris finds its way through the ecological chain to our beaches or onto our dinner tables in the fish we eat.

I ask unanimous consent that three newspaper accounts appear in the RECORD at this point.

The first, from the Baltimore Sun of October 18, 1977, describes how a severe storm last week washed sewage sludge onto the beach at Ocean City.

The second, from the Washington Post, of September 20, 1977, reports on a continuation of a permit by the EPA that allows Philadelphia to continue to dump sludge 35 miles off the Maryland-Delaware coast.

The third, from the Washington Post of December 28, 1976, describes what is being dumped and who is being harmed off-shore, along the coast from New York to Maryland.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the Baltimore Sun, Oct. 18, 1977]

STORM PUTS SLUDGE ON RESORT BEACH

OCEAN CITY.—The severe storm that struck here during the weekend dredged large amounts of sewage sludge from the ocean and deposited it on the beach from the inlet here to the Delaware line, officials said yesterday.

Mayor Harry W. Kelley told a meeting of the City Council here last night that, "It [the sludge] was over the beach. It came in in pieces. It's all over the beach."

He said Ocean City has collected between 450 and 500 pounds of the substance, described as "in solid pieces, greasy and odorous, about 2 inches thick and 5 inches across."

He presented a letter from the Department of Natural Resources, which the mayor said presents the "highly disturbing conclusion" that "our best estimate of the identity of this material is sewage sludge."

"It sure smells like it," Councilman William H. Furnell said.

Ocean City has been fighting an Environmental Protection Agency ruling allowing Philadelphia to dump its wastes in the ocean off Ocean City.

Mr. Kelley, in repeated hearings on that subject, warned that the sewage sludge could be washed ashore in any major storm. Last night, he said the appearance of the sludge following the weekend storm supported his contentions.

"It's only common sense to know" it would come ashore, he said.

Mr. Kelley last night said Ocean City probably will sue the EPA and Philadelphia because of the damage.

The Natural Resources letter stated that the sludge had been tested by labs in Kennett Square, Pa., which examined the samples by infrared spectrophotometry and also compared them with sludge from a Midwestern city.

The report said the samples were "more suggestive of animal or vegetable fats."

In the last few years, the dumping of sewage sludge off Maryland has increased to 190 million gallons, according to figures released in 1976. At that time, EPA figures indicated a sludge blanket off Maryland from 2 to 4 miles wide and 10 miles long, composed exclusively of waste matter generated by Pennsylvania and New Jersey.

The battle between Ocean City and Philadelphia over the dumping has gone on for years, and at times has been bitter. During one hearing, an assistant Maryland attorney general and a representative from Philadelphia became so embroiled in an argument

that one threatened to "punch out" the other—it was never learned which one made the threat.

Just last month, the EPA gave Philadelphia another one-year extension on continued dumping 35 miles off the Maryland-Delaware coast.

The EPA has set a January, 1981, deadline for Philadelphia to halt all dumping.

The new permit allows Philadelphia to dump 95 million pounds of sludge in the next 12 months compared to 116 million last year and 140 million two years ago. The latest permit expires June 4, 1978.

[From The Washington Post, Sept. 20, 1977]
SEA DISPOSAL OF PHILADELPHIA WASTE SET
(By Felicity Barringer)

The Environmental Protection Agency's Philadelphia regional office has issued a new permit allowing the city of Philadelphia to dump its sewage sludge at a site 35 miles off the Maryland-Delaware coast.

The decision, made last week by the newly appointed EPA regional administrator Jack J. Schramm, has infuriated Maryland officials and rekindled the long-running debate over the use of the so-called "Cape May" site for sludge disposal.

In response to the EPA's action, Warren Rich, an assistant attorney general for the state of Maryland, has written the presiding judge of the federal Circuit Court in Richmond, asking "that Philadelphia be forced to dump its wastes at a separate site 106 miles out at sea.

Maryland officials have contended for several years that the disposal of sludge at the Cape May site is costing the Maryland shell-fishing industry millions of dollars annually because of damage caused by pollution, and poses a threat to the resort beaches of the Maryland and Delaware coasts.

The federal Food and Drug Administration has already forbidden the taking of any shellfish from an area adjacent to the dump site.

The dispute over the site reached the Fourth U.S. Circuit Court of Appeals in March when Maryland asked that no more sludge dumping be permitted there. Earlier, the City of Camden had decided after a long fight to abandon that site and dump at Site 106, off the Continental Shelf.

But Philadelphia, the other major user of the Cape May site, still resisted making the change. In May, a three-judge panel of the Circuit Court in Richmond ordered the EPA to conduct a "full inquiry" into whether the Cape May site "should be designated as a dumping site by anyone for any purpose."

In the following months, two separate hearings were held on the issue of ocean dumping—one, by the national office of the Environmental Protection Agency, took place in late May; another, sponsored by the regional office based in Philadelphia, was held in early July.

The result of this latter hearing was a two-pronged recommendation by hearing examiner George D. Pence. On the one hand, he said, the balance of the evidence indicates that dumping at the Cape May site should eventually be switched to Site 106—so-called because it is 106 miles from a marker in New York Harbor. The city has balked at using this site because of the increased costs involved.

Meanwhile, he said, since Philadelphia has no site on land to use as an alternative dumping site, the city should have its permit reissued, but with provisions forcing them to phase out the dumping over a 3½-year period, ending it by January, 1981.

Schramm last week acted on the second part of Pence's proposal. Pence explained yesterday that Schramm has no authority to order a change in dumping sites—only the EPA's national administrator, Douglas Costle, can do that.

However, Maryland's Warren Rich said yesterday that "I think the Fourth Circuit wanted (the EPA) to make a final determination as to site selection before another permit was issued."

Rich's letter to Judge F. Clement Haynsworth Jr., asks that the court rule that use of the Cape May site for dumping does not conform to federal law. He also complained that the "procedures and attitudes" of the EPA was "curious and conflicting."

"We ask for interim relief requiring that Philadelphia dump at the 106 site off the Continental Shelf, pending a review of the selection process," Rich added in his letter. No date for a hearing has been set.

Under its new permit, Philadelphia may dump 95 million gallons of sewage at the site in the next year, 70 million gallons in the following 40 million gallons in 1979-80, and 10 million gallons in the final year, which ends in January, 1981. At present, the city is dumping 116 million gallons annually at the Cape May site.

AGENCY PLANS STUDY OF EFFECTS—THE OCEAN; A WASTE DUMP—III
(By Hal Willard)

The ocean is forgiving; it is huge and self-cleansing. It absorbs the indignities inflicted upon it by mankind and thus far anyway, nothing drastic has happened as a result.

But there is concern for the future.

The Environmental Protection Agency is worried primarily about the residue of toxic metals left in human sewage sludge, which for years has been dumped in large quantities 40 miles off Ocean City, Md. and 12 miles off Sandy Hook, N.J., in the entrance to New York Harbor. Both sites still are being used, but are being phased out and all dumping must cease by 1981, EPA says.

Also banned, is the dumping of waste from the manufacture of material for chemical warfare and high level radioactive waste from nuclear power plants or military use.

However, chemical waste—mostly acids from the duPont operations in Delaware—is dumped at a site six or seven miles north of the Ocean City sewage dump site. It extends perhaps five miles closer to shore. And, chemical waste from New York is dumped at a site 90 miles east of Cape May, N.J. The chemical dumping is to stop in 1980.

Some radioactive waste has also been dumped in the ocean in the past.

All of this dumping was allowed without enough scientific evidence to fully prove the safety of the action—just as the go-ahead for oil exploration off the East Coast was given without scientific approval.

And now it is being stopped—also without definitive scientific evidence that it should be, according to marine biologists. It may be that some type of waste disposal would not be damaging.

The most vigorous protests about the dumping of human sewage sludge have come from Ocean City leaders. They fear any possibility that sludge might wash ashore among the revelers in the surf who give the city its living.

EPA and other government agencies have been monitoring the dumping in an effort to learn how far it spreads and its effect on the environment. Allen Wastler at EPA headquarters in Washington said the agency is preparing to put out a contract to scientists for an environmental impact study of the dump sites area.

Some pollution data is available about the four-decades-old sewage sludge dump site off Sandy Hook, N.J.

John B. Pearce of the National Marine Fisheries Service laboratory at Sandy Hook said in an article in a New York Academy of Sciences publication in 1974 that "disposal operations have had a noticeable effect" on creatures living on the bottom and on the

"physicochemical nature of the sediments." He said the sludge caused "greatly elevated levels of heavy metals and other contaminants."

He said the effects were felt over an area of 20 square miles and the number and variety of living organisms normally found on the ocean bottom was reduced. Specifically there was a more than one-third reduction in the number of crabs.

In addition, other scientists at the laboratory found that a fin rot disease has affected at least 22 species of fish in the area, including bluefish, and "studies indicate a bacterial cause." The scientists pointed out the presence of "sewage and industrial wastes" and said that "we suspect pollution had a role in the disease."

Articles in the Marine Pollution Bulletin also blame the sludge for an "incidence of shell disease in shrimp as high as 30 per cent in certain localities" and for similar bad effects—the cracking of shells, causing flesh to decay—in crabs and lobsters.

Another Bulletin article, in 1973, cited "concentrations of chromium, copper, lead, nickel and zinc . . . 10 to 100 times greater near waste disposal areas" off New York.

Herbert L. Windom, associate professor of oceanography at George's Skidaway Institute of Oceanography said heavy metals such as mercury, copper, cadmium, zinc and nickel get into the water from a variety of sources: from industries, from sewage, from the air (put there by fuel burning).

Ultimately, the metals settle on the ocean floor. That affects creatures that live on the bottom—such as a variety of ocean clam called quahog, and scallops—and phytoplankton and zooplankton, minuscule plant and animal waterlife larger fish feed on. Thus metals again enter the food chain and eventually get to humans.

How much of what kind of metals get where how fast and cause how much damage is what Windom is trying to find out.

Windom said copper, and other heavy metals, can have "drastic" effects on plankton, cutting its production, and therefore cutting production of sea life on up the food chain so that ultimately there would be less seafood for people.

Consequently, Windom said, the effect on people more likely would be economic rather than toxic, because it would be difficult for people to get enough copper to interfere with the body's chemical balance.

Because the amount of sludge to be dumped at the New York site had been expected to increase before the phase-out was ordered, alternative dump sites—in deeper water and further offshore—were proposed.

However, a recommendation from the National Oceanic and Atmospheric Administration's Environmental Research Laboratories says it would be better environmentally to continue using the existing sites.

Sewage sludge "would be dispersed even more widely" by dumping at the greater depths, ranging from about 120 feet to 180 feet, than at the shallower existing site, about 60 feet, the report said.

"Small or low-density sewage sludge particles may be impeded (from settling to the bottom) by the density" of the water, primarily in late spring, summer and early fall and thus "stay in the upper and middle parts of the water column for several days or longer. Thus . . . the material would tend to be dispersed over a wide area . . ."

But the concern about the existing site caused the 1981 cut-off decision. In mid-June, meteorological and atmospheric conditions that EPA experts described as "unusual" occurred in the New York area. A strong wind washed "tar balls," "sewage trash" and a "little" sewage—not sludge itself—up on the shores of Fire Island, to the total distress of persons who encountered the pollution. Some beaches were closed for a time.

Tar balls were the result of an earlier oil spill in the Hackensack River in New Jersey and under normal conditions, an EPA spokesman said, they would not have been found on the beaches.

EPA's Allen Wastler said tar balls could be mistaken for sewage sludge by bathers or other persons not used to seeing either one.

Wastler said New York still dumps "close to 400 million gallons of raw sewage" into the water every day. Much of that goes into the inner harbor, which is about 40 miles from Fire Island. Sewage would not wash that far without disintegrating in the water, Wastler said.

Wastler said EPA employees at the laboratory in Edison, N.J., reported that milk cartons found on the beaches had come from Texas, indicating that garbage had been dumped overboard by a ship.

Other debris came from the Hudson River, which was at a high level and was experiencing high tides and strong on-shore winds, Wastler said. Winds and currents carried the debris out to the Long Island beaches.

Peter Hacker, a professor at Johns Hopkins University's Chesapeake Bay Institute, who has studied the ocean's actions for years, pointed out that last summer there were "anomalous winds for a period of about 20 days" over the continental shelf area and instead of the wind "fluctuating in direction every few days" it blew steadily northward.

The result was that some waste material suspended in the water and lying on the ocean floor ended up on shore. Under normal wind conditions, the material would have simply washed back and forth or stayed put, Hacker said. A steady wind to the south would have simply blown waste out to sea.

The movement of waste could include the material dumped off the coasts of Maryland and Delaware, Hacker said.

EPA is seeking information about the site of that dumping and surrounding area in an effort to guard against the sort of trouble Long Island had last summer. Part of the study is to be a detailed charting of the water movement in the area—tides, currents and wave actions.

Hacker and a Johns Hopkins colleague, William Boicourt, already have a substantial amount of information about water action and are gathering more. They have led expeditions into the area for several years and have compiled the only detailed data on water action there.

Their studies show that masses of water on the continental shelf are moved long distances in short periods of time; sometimes as much as three miles per hour—near the surface.

Also of concern to scientists are the deposits of radioactive waste beyond the continental shelf in about 9,000 feet of water about 155 miles off Ocean City.

According to an EPA report, it was dumped there in steel drums between 1946 and 1970 and traces of it have leaked out. The report said there was no evidence yet of danger to human health.

The drums contain low-level radioactive waste—the wastes from industrial processes that although not trivial are nothing compared to the wastes generated by the use of uranium in nuclear power plants in the generation of electricity. That waste contains plutonium, a lethal substance that for all practical purposes will be with us forever. It can't be destroyed and has a half-life of 24,000 years, meaning half of it will be still potent then.

Mr. MATHIAS. Mr. President, time is running out on the ocean environment. When we so clearly know that ocean dumping is harmful to the ecological chain, there is no excuse for our continuing to endanger the health of both the marine and human environment. For

the EPA, time, as well as the patience of its Mid-Atlantic constituency, is running out.

Mr. HOLLINGS. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. HOLLINGS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. HOLLINGS. Mr. President, I move the adoption of the bill.

The PRESIDING OFFICER. The bill is open to amendment. If there be no amendment to be proposed, the question is on the third reading of the bill.

The bill was ordered to a third reading, read the third time, and passed.

Mr. HOLLINGS. I move to reconsider the vote by which the bill was passed.

Mr. FORD. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. HOLLINGS. Mr. President, I move that S. 1527 and S. 1425 be indefinitely postponed.

The motion was agreed to.

Mr. ROBERT C. BYRD. Mr. President, I wish to commend the manager, Senator HOLLINGS, the minority manager, Senator PEARSON, and the work of both the Commerce Committee and the Environment and Public Works Committee which has led to the passage today of H.R. 4297, the Marine Protection, Research, and Sanctuaries Act.

This is major legislation dealing with ocean dumping, and has required months of difficult work on the part of Chairman MAGNUSON, the ranking minority member, Senator PEARSON, and all the members of the Commerce Committee, and Chairman RANDOLPH, the ranking minority member, Senator STAFFORD, Senator MUSKIE, and all members of the Environment and Public Works Committee.

I congratulate all Senators for their efforts which secured passage of this important measure.

QUORUM CALL

Mr. ROBERT C. BYRD. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

INTERIM REGULATORY REFORM ACT—FEDERAL TRADE COMMISSION AND CONSUMER PRODUCT SAFETY COMMISSION

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the Senate proceed to the consideration of Calendar Order No. 178.

The PRESIDING OFFICER. The bill will be stated by title.