



RECORD OF DECISION

SLUDGE MANAGEMENT STUDY

FOR THE

BLUE PLAINS WASTE WATER TREATMENT FACILITY

WASHINGTON, D.C.

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U.S. EPA Region III
Regional Center for Environmental
Information
1650 Arch Street (3PM52)
Philadelphia, PA 19103

TD
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

TO ALL INTERESTED AGENCIES, PUBLIC GROUPS, AND CITIZENS:

Enclosed is a copy of the public Record of Decision (ROD) concluding the Environmental Impact Statement (EIS) process that has been conducted on the sludge management study for the Blue Plains Waste Water Treatment Facility in Washington, D.C.

The Record of Decision summarizes the Environmental Protection Agency's (EPA) final evaluation of the sludge management alternatives for the District of Columbia's Blue Plains Facility. EPA has determined that land application is the most environmentally sound method of disposing of the sludge from this facility.

The District of Columbia has not filed a formal request for funding for sludge management at this time. However, if a construction grant is applied for in the future for implementation of a sludge management alternative at this facility, EPA will evaluate the request in terms of the findings concluded from the EIS process.

I wish to thank the officials and citizens of the District of Columbia and the States of Maryland and Virginia for the participation and assistance provided to EPA's staff during this EIS process.

Sincerely,

Edwin B. Erickson
Edwin B. Erickson
Regional Administrator

Enclosure



Regional Center for Environmental Information
US EPA Region III
1650 Arch St
Philadelphia, PA 19103

U.S. EPA Region III
Regional Center for Environmental
Information
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Record of Decision

In May 1990, the U.S. Environmental Protection Agency (EPA) issued a Final Environmental Impact Statement (EIS) on the Sludge Management Plan for the District of Columbia's (District) Blue Plains Waste Water Treatment Facility. This Record of Decision finalizes the EIS process by presenting the Agency's final decision regarding an acceptable solution to the District's immediate and future sludge management needs.

Background

For many years the District has investigated the proposal to incinerate up to half of the sludge produced by the Blue Plains Waste Water Treatment Plant as part of their Facility Plans. The plans also call for recycling roughly half of the production through composting both at the Plant and in Calverton, MD at a site designated as Site-II. In 1983, EPA and the District signed an agreement committing EPA to support the ultimate sludge disposal decision, depending on the outcome of an environmental analysis.

In 1984, EPA issued a Finding of No Significant Impact (FONSI) for the composting proposals and operations at the Blue Plains Facility and Site-II. At the same time, EPA notified both the Government of the District of Columbia and the user jurisdictions that, as required by the National Environmental Policy Act (NEPA), the EIS process would be applied to the remaining half that was slated by the District for incineration.

Up to that time, the District had made no formal application for funding support for incineration. However, NEPA guidelines provide for the early application of NEPA. In 40 CFR 1501.2 it is stated: "Agencies shall integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts."

In this case, the District had made known its preference for incineration through its facility and feasibility plans. These plans call for an engineered incineration capacity that would exceed the plant's long term production, although the need is for incineration for only 50% of the sludge produced. These plans were submitted to EPA and triggered the NEPA process.

In August, 1984 EPA issued a Notice of Intent to prepare an EIS on the incineration portion of the sludge management plan. A Draft EIS was completed in March 1989, and was distributed for public review to Federal and state agencies, elected officials, local government agencies, environmental interest groups, area residents, and numerous other individuals and organizations. The Final EIS was issued in May 1990.

A public participation program was initiated to ensure that all interested citizens could become involved in the decision-making process. Public meetings, a public hearing, numerous meetings and telephone conversations with area residents, and periodic newsletters were some of the methods utilized by EPA to encourage citizen participation.

Alternatives Evaluated

A variety of sludge disposal methods were evaluated by the EPA during this EIS process. Six action alternatives were developed and reviewed. In addition a no-action alternative was also considered. A brief description of each alternative is given below:

* Incineration with Ash Landfilling

The District proposed to construct six fluidized bed furnaces to process the equivalent of 22 dry tons per day (DTPD) of sludge. The incineration proposal includes final ash disposal at the Lorton Landfill. In preparing the EIS, both multiple hearth and fluidized bed furnaces were considered. In addition, a scaled down incineration alternative using only four fluidized bed furnaces was considered.

* Ocean Disposal

Ocean disposal was evaluated because of the location of Blue Plains on the shores of the Potomac River. Barges departing from Blue Plains would have access to the Atlantic Ocean via the Potomac River; thus making ocean disposal a low cost alternative.

* Land Application

Historically, land application of Blue Plains sludge has been a major part of the District's solids management program. Approximately 600 to 700 wet tons of dewatered sludge are presently transported off-site, stored, and applied as required to support crop nutrient requirements.

* Composting and Product Use

Composting of dewatered sludge is a major component of the District's long term plan for the non-EIS sludge. Under the FONSI, the present on-site aerated static pile composting is due to be replaced with in-vessel composting to provide increased capacity while using less of the space constrained Blue Plains site.

* Drying and Product Use

Heat drying reduces the overall weight and volume of the sludge to be removed from the site. The final dry sludge pellets, which are stable and pathogen-free, may be used for land application programs. Environmental

concerns focus on the moist gas stream discharge to the atmosphere and the liquid sidestream from the scrubber unit.

* Landfilling

The Lorton Landfill in Fairfax County, Virginia is currently the only site available to accept dewatered sludge. However, the Commonwealth of Virginia prohibits the disposal of dewatered sludge in the Occoquan Watershed where the landfill is located. Therefore, implementation of this alternative is not feasible.

* No-Action

The no-action alternative presumes the continuation of the current sludge handling and disposal methods for the EIS portion of the sludge. All sludge not subject to the FONSI (composting) or the Montgomery County Composting Facility (composting) would be dewatered and land applied to the limit of the ability of the existing facility.

Final Recommended Action

Of the alternatives evaluated during the EIS process, land application coupled with composting is EPA's preferred choice as a sludge management alternative for the portion of the facility's sludge not covered by the FONSI. Land application includes the following major elements:

- * Improved sludge handling and dewatering at Blue Plains. This includes the installation of centrifuge dewatering at Blue Plains.
- * Continuation and renewal of long-term contracts to haul and dispose of sludge including:
 - Contracts that provide for disposal of an average 200 DTPD and for up to 384 DTPD during the maximum two months of the year, and
 - Contracts that provide for appropriate regulatory management, environmental impacts mitigation, and traffic control.
- * Coordination with programmed development of the FONSI composting and the expanded use of the Montgomery County Composting Facility.

Costs

Land application is not the least cost alternative but it compares favorably with other alternatives, including incineration. Considering the variability in engineering estimates for planning

purposes, the total annual equivalent costs (per year costs) and annual equivalent costs on a per dry ton basis are nearly equal.

The following table summarizes the costs for land application. The capital costs of \$17,490,000 reflect the cost of installing a centrifuge dewatering process at Blue Plains. The District plans to complete this dewatering process regardless of the disposal technology selected.

Annual operation and maintenance costs of \$18,360,000 are based on the District's estimates for operation and maintenance of the centrifuge dewatering system and the cost of contract land application. The cost for contract land application is the major component of this cost (\$12,988,000) and is based upon the District's current contracts for land application of sludge.

Annual energy costs for land application are estimated to be \$979,000. These costs include approximately \$310,000 for electrical power for the centrifuge dewatering equipment and \$669,000 for fuel for the sludge transportation and application.

SUMMARY OF COSTS OF LAND APPLICATION

		Totals
Capital Cost	\$	17,490,000
1988 Estimated		
Project Cost (1)		
Operation & Maintenance Cost (2)		
- Centrifuge Dewatering	\$ 5,047,000	
- Land Application	\$ 12,988,000	
- Administrative Cost	\$ 325,000	\$ 18,360,000
Total Annual Equivalent Costs	\$	20,218,000
Estimated Annual Equivalent	\$	277/dry ton
Cost per Dry Ton (3)		

(1) Based on District Cost Data and Engineering Science Concept Design Cost Information

(2) Based on District Cost Data and District Contracts for Land Application @73,000 dry tons per year sludge solids

(3) Based on annual loading of 73,000 dry tons of sludge solids

Review Comments Submitted on the Final EIS

Following is a summary listing of individual comments EPA

received on the Blue Plains Final EIS. Letters appear in Appendix I.

Commentator: Rosemary Roswell

Affiliation: Assistant Secretary, State of Maryland, Department of Agriculture, Office of Resource Conservation

Comments: In calculating availability of useable cropland for land application, competition with other existing STPs and animal wastes has not been considered. The seasonal unavailability of land indicates a need for temporary covered sludge storage areas. This is currently not considered as a requirement in the EIS.

Commentator: Reginald W. Griffith

Affiliation: Executive Director, National Capital Planning Commission

Comments: The Commission's May 4, 1989 comments on the Draft EIS were not included in the Final EIS. In these comments the Commission supported land application, based on the premise of continuing land availability for the disposal of sludge.

Commentator: Carol B. Thompson

Affiliation: City Administrator/Deputy Mayor for Operations, Government of District of Columbia

Comments: The Final EIS format is not consistent with the requirements of NEPA. Also, comments on the Draft EIS were not adequately addressed.

Commentator: John E. Touchstone

Affiliation: Director of Public Works, Government of the District of Columbia

Comments: The Final EIS format is not consistent with the requirements of NEPA. Also, comments on the Draft EIS were not adequately addressed.

Commentator: H. Bryan Mitchell

Affiliation: Deputy State Historic Preservation Officer, Department of Historic Resources, Commonwealth of Virginia

Comments: We support EPA's preferred alternative of land application.

Funding Status

At this time EPA has not received an official request for funding for this project. In the future, should the District request funding for a sludge management alternative for the Blue Plains facility, EPA intends to support the preferred alternative, land application, as evaluated in the draft and final EIS and this record of decision. Until such time as there exist significant changes in sludge management technology or the legislation affecting these technologies, EPA will continue to support land application as the most environmentally sound sludge management alternative for the Blue Plains Waste Water Treatment Facility.

APPENDIX I

COMMENTS ON FINAL ENVIRONMENTAL IMPACT STATEMENT



William Donald Schaefer
Governor

Melvin A. Steinberg
Lt. Governor

Wayne A. Cawley, Jr.
Secretary

Robert L. Walker
Deputy Secretary

STATE OF MARYLAND
DEPARTMENT OF AGRICULTURE
OFFICE OF RESOURCE CONSERVATION

RECEIVED

April 17, 1990

APR 20 1990

~~Wetlands & Water Pol. Sect.~~

EPA - Region III

Ms. Phoebe C. Robb
EPA, Region III
841 Chestnut Building
Philadelphia, PA 19107

Dear Ms. Robb:

The following comments are in response to the Final Environmental Impact Statement on the sludge disposal alternatives for the District of Columbia's Blue Plains wastewater treatment facility.

I. Availability of Land for Land Application Alternative

In calculating availability of usable cropland, competition with other existing STPs and animal wastes has not been considered.

- a. There are approximately 300 MGD of wastewater treated in municipal treatment plants in Maryland. This results in production of about 2000 wet tons/day.
- b. Animal waste production in Maryland is estimated at about 9 million tons per year, which is applied to the agricultural croplands.

II. Storage Costs for Sludge

Application times for sludge and animal wastes should be limited to spring and fall months. December, January, and February applications are not recommended due to the potential runoff problems caused by frozen ground and the inability of dormant plants to uptake nutrients. In June, July and August most agricultural land is covered by summer crops and wastes cannot be applied.

50 HARRY S TRUMAN PARKWAY, ANNAPOLIS, MARYLAND 21401

(301) 841-5700
Baltimore/Annapolis Area



(301) 261-8106
Washington Metro Area

MR. PHILIP J. DODD
APR. 17, 1990
Page 2

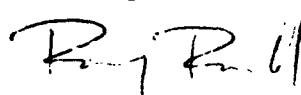
The seasonal unavailability of land indicates a need for temporary covered sludge storage areas. This is currently not considered as a requirement in the EIS.

An alternative solution is to compost the sludge in summer and winter months. However, the composted form of sludge would also need to be stored in those months.

It is not clear whether this extra storage cost is included as an operation and maintenance cost for land application (Item (16), page 57).

We appreciate the opportunity to comment. Since we are actively pursuing a 40% nutrient reduction in the Chesapeake Bay region, it is important that additional inputs be carefully considered.

Sincerely,

A handwritten signature in dark ink, appearing to read "R. Roswell", is written over the typed name.

Rosemary Roswell
Assistant Secretary

RR:bab
cc: Louise Lawrence

NATIONAL CAPITAL PLANNING COMMISSION

COMMISSION
MEMBERS

IN REPLY REFER TO:
NCPC File No. 2355

APR 24 1990

Appointed by the
President of the United States
Glen T. Urquhart
CHAIRMAN

William E. Baumgartner
W. Don MacGillivray

Appointed by the
Mayor of the District of Columbia
Robert J. Nash
Patricia Elwood

Secretary of Defense
Honorable Richard B. Cheney

Secretary of the Interior
Honorable Manuel Lujan, Jr.

Administrator of General Services
Richard G. Austin (Acting)

Chairman, Committee on
Governmental Affairs,
United States Senate
Honorable John Glenn

Chairman, Committee on the
District of Columbia,
U.S. House of Representatives
Honorable Ronald V. Dellums

Mayor, District of Columbia
Honorable Marion S. Barry, Jr.

Chairman, Council of the
District of Columbia
Honorable David A. Clarke

EXECUTIVE DIRECTOR
Reginald W. Griffith

Ms. Phoebe C. Robb
United States Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

Dear Ms. Robb:

We appreciate receiving a copy of the Final Environmental Impact Statement (EIS) on the Blue Plains Wastewater Treatment Plant Sludge Management Study. We concur with and encourage the land application alternative recommended by the Environmental Protection Agency. We note, however, that the Commission's May 4, 1989 comments are not included in the Final EIS. In these comments the Commission supported land application, based upon the premise of continuing availability of land for the disposal of sludge. The incineration alternative is less desirable because the stacks would have an adverse visual impact on nearby Federal park properties and other Federal interests along the shoreline of the Potomac River. Enclosed is a copy of the Commission's May 1989 comments.

We appreciate your coordination with Federal, regional, and local agencies and look forward to future cooperation with EPA. If you have questions about our comments, please contact Maurice Foushee at (202) 724-0174.

Sincerely,

Reginald W. Griffith
Reginald W. Griffith (for)
Executive Director

Enclosure

NATIONAL CAPITAL PLANNING COMMISSION

1225 G STREET, N.W.
WASHINGTON, D.C. 20004

NCPC File No. 2355

BLUE PLAINS WASTEWATER TREATMENT PLANT,
SLUDGE MANAGEMENT STUDY -
DRAFT ENVIRONMENTAL IMPACT STATEMENT

Report to the U.S. Environmental Protection Agency, Region III

May 4, 1989

The Commission comments to the U.S. Environmental Protection Agency, Region III, on the Blue Plains Wastewater Treatment Plant Sludge Management Study, Draft Environmental Impact Statement (EIS), as follows:

1. Assuming the continuing availability of land for the disposal of sludge, the Commission endorses EPA's preferred alternative of Land Application, which provides for spreading dewatered sludge on permitted land disposal sites in Maryland and Virginia, as having, at this time, the least adverse impact on Federal interests; and

2. The Incineration alternative, if it requires stacks 225 feet high to burn dewatered sludge at Blue Plains, would result in adverse visual impacts on nearby Federal park properties, the Anacostia Freeway gateway, and other Federal interests along the shoreline of the Potomac River. Therefore, it is recommended that other means of addressing this problem be explored.

* * *

BACKGROUND AND STAFF EVALUATION

Description of Proposal

The U.S. Environmental Protection Agency (EPA) has requested the Commission's comments on a Draft EIS it has prepared for the Blue Plains Wastewater Treatment Plant, Sludge Management Study. The purpose of the study is to examine options for disposing of a portion of the sludge generated at the plant over the next 20 years.

The Blue Plains Wastewater Treatment Plant complex is located on approximately 159 acres in the southwest portion of the District of Columbia. It is bounded by the Naval Research Laboratory on the north, Interstate 295 on the east, Oxon Cove on the south, and the Potomac River on the west. The facility is designed to treat an annual average of 309 million gallons per day (mgd) of wastewater flow. It serves the District, parts of Fairfax and Loudoun Counties in Virginia, and portions of Montgomery and Prince George's Counties in Maryland.

The residuals from the wastewater treatment process is called sludge. These solids undergo further processing prior to disposal, including thickening, anaerobic digestion, blending, dewatering, and on-site aerated static pile composting. Dewatered sludge, which is not processed further on-site, is stored until it can be transported off-site to processing facilities. Currently, about 250 dry tons per day of sludge are generated at the plant. Roughly 70 tons are composted on-site. Another 40 tons are composted at the Montgomery County Composting Facility (MCCF) in Calverton near the Montgomery/Prince George's County border. The remaining 140 tons are taken by private contractors to permitted land application sites in Maryland and Virginia.

Several alternative sludge disposal plans are discussed in the EIS. All of the disposal solutions, however, assume that capacity for approximately 410 dry tons per day (dtpd) of sludge will be required at the plant by the year 2010. Under the 1985 Blue Plains Intermunicipal Agreement (IMA), approximately 88 dtpd will be handled by the MCCF, Site II. An additional 123 dtpd will be composted by an in-vessel system planned for Blue Plains. The remaining 200 dtpd could be disposed of in a variety of ways, and it is this 200 dtpd that is the subject of the EIS.

The four alternatives that are identified as most viable include: No Action, Land Application, Incineration, and a combination of Incineration and Land Application. Landfilling, ocean disposal, composting, and drying and product use were eliminated through the screening process.

The No Action alternative involves a continuation of current practices. The MCCF would process 88 dtpd of sludge. One hundred and twenty-three dtpd would be handled by the District on-site in an in-vessel composting system. The remaining 200 dtpd of sludge would be land applied (dewatered sludge either spread on the surface of the land or injected into the soil).

Land application, which is EPA's preferred alternative, is similar to the No Action option. The MCCF would continue to process 88 dtpd. On-site composting at Blue Plains would remain at 123 dtpd. Under the Land Application scenario, however, available land application sites would not only accommodate the 200 dtpd of sludge generated at the plant on an average daily basis but would also provide for the disposal of up to 384 dtpd to handle peak rates of sludge production. According to the document, there are approximately 70,000 acres of land in Virginia and Maryland that are permitted to accept sludge. While all of this land is not set aside for use solely by Blue Plains, EPA believes sufficient land is available to handle the sludge from the plant that would require land application.

Incineration involves burning the sludge that would not be composted under the IMA. This would include both the 200 dtpd produced on an average daily basis

as well as the 384 dtpd generated at peak rates. Four fluidized bed furnaces would be installed in the existing Solids Processing Building. Plans are to install four furnaces in case one or more of the furnaces is not operational at any point. Each furnace would be designed to incinerate 133 dtpd. Ash is expected to be landfilled at the Lorton Landfill in Virginia. Furnace exhaust gases would pass through air pollution control equipment prior to reaching the stacks to remove harmful pollutants. The stacks would be 225 feet high with three 3.25-foot diameter flues in each stack.

The Combination Incineration/Land Application option involves disposing of the sludge using both incineration and land application. This option would also accommodate average daily and peak rates of sludge production. Half of the 200 dtpd of sludge produced on an average daily basis would be incinerated and the other half would be land applied. The combination alternative would also accommodate peak rates of sludge production.

According to the document, the total annual cost of the Incineration alternative is \$261 million, while the Land Application option is \$277 million. Although the total costs are comparable, Incineration has a higher capital cost while Land Application's operating and maintenance costs are greater. The overall operability (the ability of a given solids management system to continuously provide the intended disposal service) are judged to be equal for Incineration and Land Application. Both options are considered to have good prospects for being implemented.

The environmental implications of the respective disposal approaches vary. Incineration results in the emission of air pollutants that would not be produced with Land Application. The document does indicate, however, that incinerator emissions are expected to be within allowable air quality standards and that adverse health impacts are not expected from the emissions. Both methods would require the use of leachate collection and treatment systems and surface water controls. Additional truck traffic on I-295 would result from either of the two primary build options. The Land Application alternative would require a minimum of 37 to 44 truck trips per day to transport the projected 200 dtpd. Fewer truck trips would result from the Incineration option than the Land Application alternative. Scheduling truck movements for non-peak periods would lessen the effect of either alternative.

According to the document, the visual impact of the stacks will affect the aesthetic quality of parks along the Potomac River, including the Shepherd Parkway Park to the north, the Bald Eagle Hill Park located to the east, and Oxon Hill Children's Farm located southeast of Blue Plains. Viewpoints from Old Town Alexandria, the White House, and Daingerfield Island would also be impacted. The close of the public comment period on the document is May 22. EPA also indicates that a public hearing will be scheduled toward the end of the comment period.

Conformance With Comprehensive Plan

The two primary alternatives offered by EPA for the disposal of sludge at Blue Plains may affect air and water quality, Federal parklands, and the scenic view afforded by a major gateway to the Nation's Capital. The following policy

contained in the Federal Environment element relating to air quality is applicable to the Incineration alternative:

Stationary source concentrations of air pollutants should be reduced by:

Using and/or demonstrating best available existing and new technology, feasible;

An additional policy contained in this element relating to the protection of ground and surface water applies to both the Incineration alternative and the Land Application alternative:

Spoil, sludge, and other waste materials should be disposed of in a manner which does not contaminate ground or surface water resources.

There is concern that the construction of emission stacks 225 feet high, as would be required under the Incineration alternative, could adversely impact the views from nearby Federal parklands, namely, Oxon Hill Children's Farm/Oxon Cove Regional Park, Daingerfield Island, and Shepherd Parkway. Policies contained in the Parks, Open Space and Natural Features element require that the natural qualities of these parklands and their views be protected.

The emission stacks would also be visible from the Anacostia Freeway, which serves as a major gateway to the Nation's Capital. The following policy contained in the Visitors to the National Capital element relating to scenic views along gateways is applicable:

Maintain the gateways in the National Capital Region in a manner which protects their landscape character and quality, promotes scenic views, and enhances the Visitors experience of the Nation's Capital.

It would appear that emission stacks at the proposed elevation would detract from the scenic views accorded visitors to the Nation's Capital along this gateway.

Coordinating Committee

The Committee received an information presentation on the Draft EIS at its April 12, 1989 meeting. Agencies represented on the Committee will forward their individual comments to the EPA on the document. Attending the meeting were representatives of NCPC, the District of Columbia Office of Planning, General Services Administration, and the Washington Metropolitan Area Transit Authority.

Previous Commission Action

At its meeting on August 5, 1971, the Commission approved the final building plan for the Solids Processing Facility, Blue Plains Water Pollution Control Plant, as shown on NCPC Map File No. 84.40(52.10)-26315. The final plans included provisions for three "stub" stacks (and a possible fourth stack). According to the staff report, the three stacks would reach an elevation of 110 feet or approximately 20 feet above the planned high point on the building. Incinerator furnaces were never installed in the building.

Federal Interest Evaluation

A long-term solution to the sludge disposal problem at Blue Plains is critical. Expansion of the plant to accommodate more wastewater flows and the application of more stringent water quality controls on plant operations will produce in the future additional quantities of sludge requiring disposal. According to EPA, failure to find environmentally acceptable and dependable means of disposing of the Region's sludge could result in limitations on future growth and development in areas served by the plant.

Assuming the continuing availability of land for the disposal of sludge, the staff recommends that the Commission endorse EPA's preferred alternative of Land Application. EPA indicates that this option is most consistent with the National Environmental Policy Act and EPA's national policy which encourages recycling resources. Further, indications are that it can be accomplished without severe operational problems. While incineration would provide the District with greater autonomy in meeting its long-term sludge disposal requirements, staff believes that if incinerator stacks with top elevations of 225 feet are required, adverse visual impacts will be created from viewpoints up and down the river and would detract from the beauty and image of the Nation's Capital. The proposed stacks would be clearly visible from nearby Federal parks located along the shores of the river, such as Daingerfield Island and Oxon Cove Park. The I-295 gateway into the city would also be negatively affected by the presence of tall stacks. Views from across the river along the Alexandria waterfront would be impaired as well. All of these riverfront sites would have a clear vision of the proposed stacks since no intervening trees or structures would filter views.

The staff has contacted the Department of the Navy and the National Park Service (NPS) to elicit their comments on the Draft EIS. The Navy had not reviewed the document at the time of the staff's inquiry. Their preliminary indication, however, was that based on the staff's description of the EIS neither of the two principal options in the EIS would adversely affect their activities at the Naval Research Laboratory or the Naval District Washington, Anacostia. Representatives of the NPS also advised the staff that they had not received a copy of the document. Based on their understanding of the options, however, they believe 225 feet high incinerator stacks would have adverse visual impacts on nearby park properties and views along the river. On November 2, 1987, the Federal Aviation Administration issued its determination that the stacks would not pose a problem for air navigation. It did ask, however, that since the structures would exceed obstruction standards that they be marked and lighted.

Since the preferred alternative (Land Application) appears to be a reasonable option with costs, operational requirements, potential for implementation, and environmental impacts comparable to the Incineration option, the staff recommends that the Commission endorse Land Application as the option to be selected. It would have less impacts on Federal interests than the Incineration alternative. Although the Commission previously approved plans for the Solids Processing Building, which required incinerator stacks, the previously proposed stacks were much lower in height and would not have resulted in a major change in the skyline as would the current proposal.

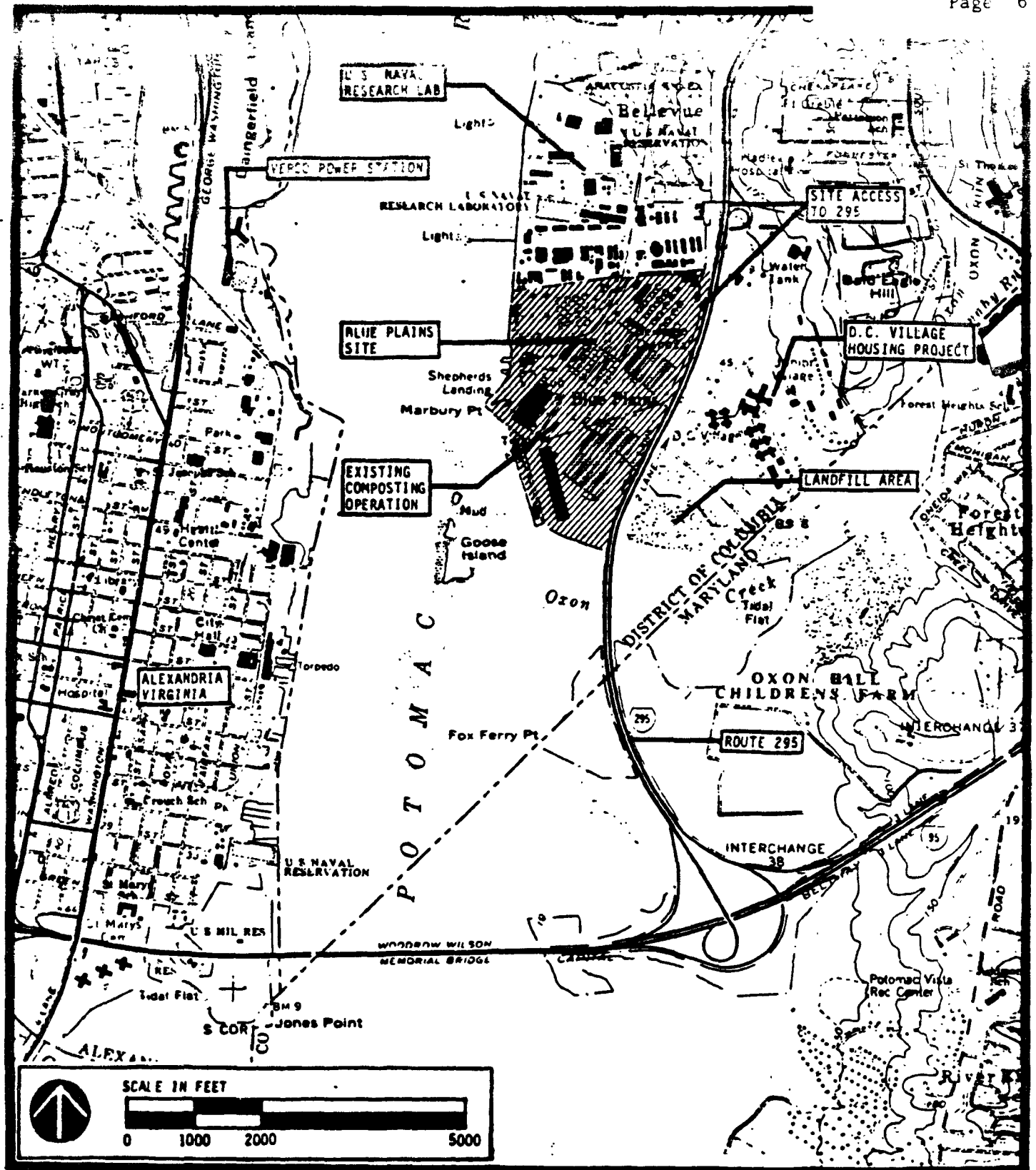
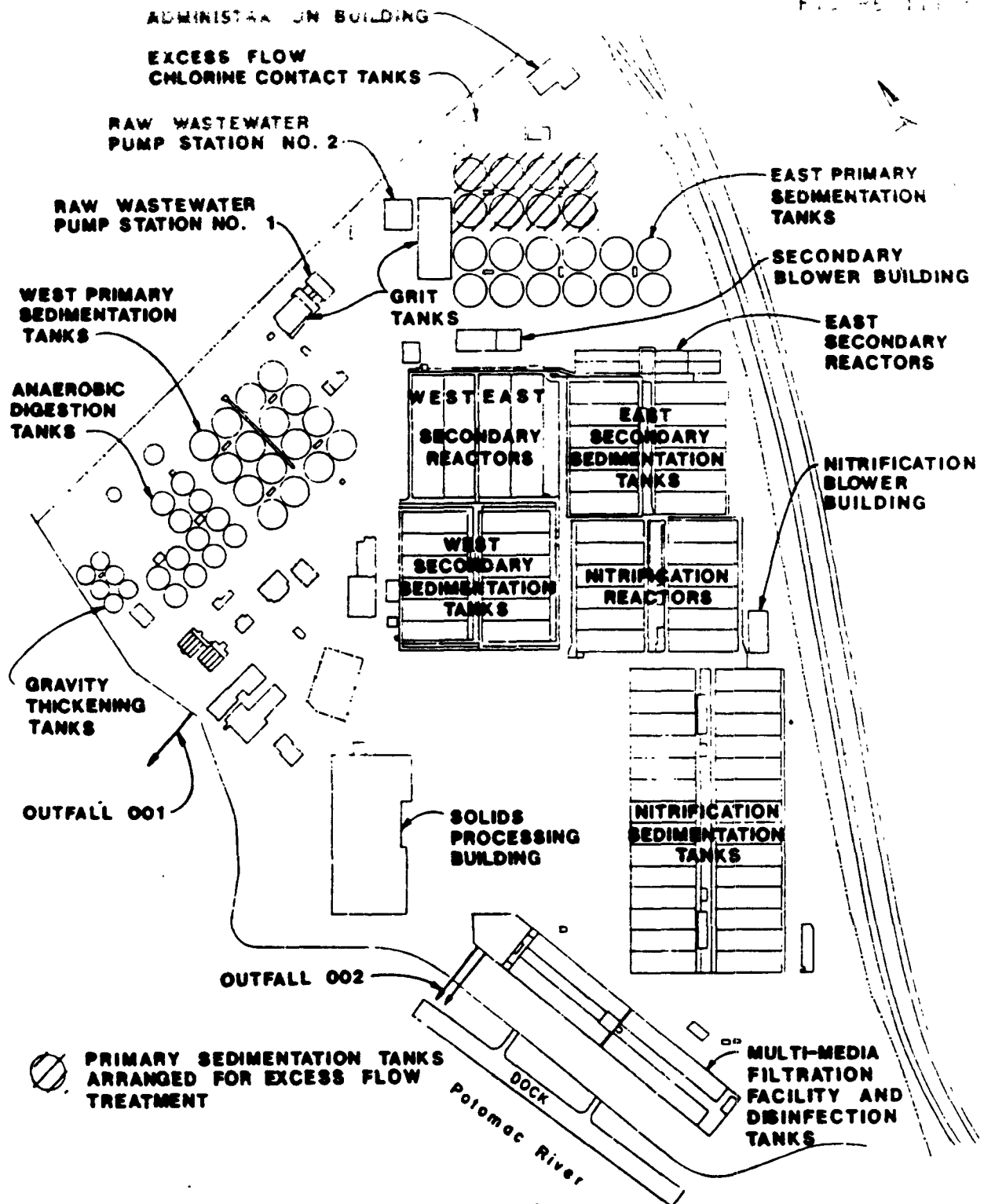


FIGURE 11-12
**BLUE PLAINS SITE
EXISTING CONDITIONS**



BLUE PLAINS WASTEWATER TREATMENT PLANT EXISTING PLANT FACILITIES

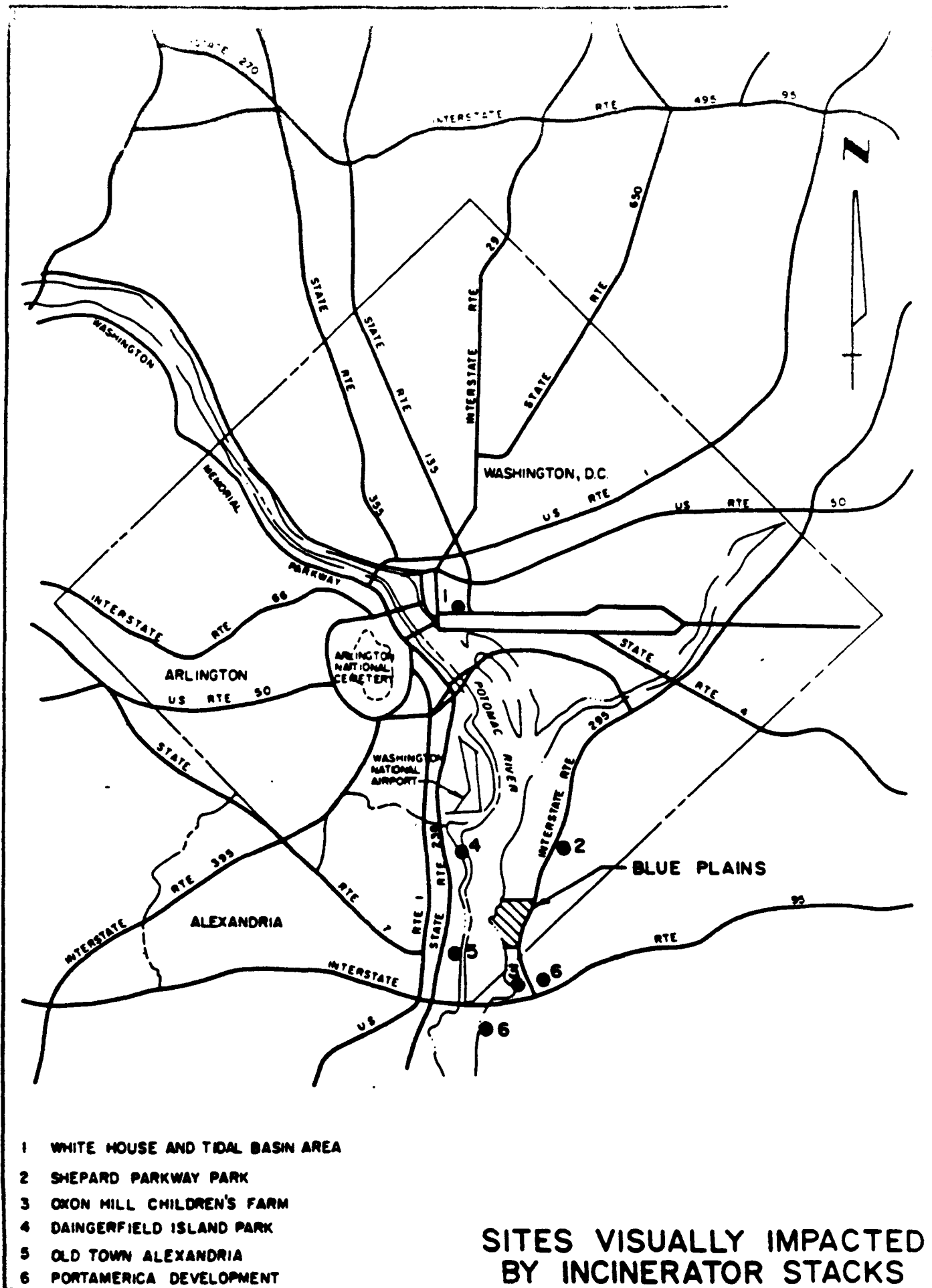


FIGURE 4-1

GOVERNMENT OF THE DISTRICT OF COLUMBIA
EXECUTIVE OFFICE

OFFICE OF THE CITY ADMINISTRATOR
DEPUTY MAYOR FOR OPERATIONS



1350 PENNSYLVANIA AVE., N.W. — ROOM 507
WASHINGTON, D.C. 20004

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MAY 03 1990

NEPA COMPLIANCE SEC
EPA - REGION III

April 26, 1990

Mr. Edwin B. Erickson
Regional Administrator
U.S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, Pa. 19107

Dear Mr. Erickson:

I have reviewed the Final Environmental Impact Statement (EIS) for sludge disposal at the Blue Plains Wastewater Treatment Plant. I am extremely concerned with the final recommendation of the study, and deeply troubled by the substantial sludge management burden your recommendation places on the Washington Metropolitan Area.

As I have stated in previous conversations and correspondence, the District of Columbia cannot provide reliable sludge disposal through a combination of land application and composting. The District expects that sludge volumes will increase in the future. I believe it would be irresponsible to place the District in the position of being completely dependent upon private contractors and surrounding state and local governments to provide such a vital municipal service.

I am also concerned that your decision does not appear to be based upon technical or environmental considerations, or on the cost effectiveness to the local governments. Instead, the decision appears to be based upon EPA's national policy that "whenever economically feasible, recycling and reuse are to be considered options of choice." I believe that our sludge management plan, which calls for composting half of the sludge produced at Blue Plains and incinerating the remaining half of the sludge meets this test.

I also believe your recommendation fails to recognize that the District has virtually no control in implementing a land application program. We have no land suitable for sludge disposal within the District of Columbia, the suburban user jurisdictions are running out of land for sludge disposal within their counties,


the State of Maryland has imposed limits on sludge storage facilities which severely limit land application within that state, and draft Federal regulations also limit the viability of land application nation-wide. The combined affect of these constraints render the land disposal of up to 200 dry tons (1,000 wet tons) of sludge per day an unacceptably risky operation over the next twenty years.

We do not agree that "there does not appear to be a trend opposing the continued practice of land application of sludge" (page 30, response). Local government efforts to prevent siting of sludge storage facilities (Carroll County, MD.) and to prevent importation of sludge (Talbot County and Queen Anne's County, MD. and Carolina County and Culpepper County, VA.) are indicative of a continuing trend to inhibit land application of sludge from any "outside" county. We believe this trend will accelerate as more municipalities adopt land application programs in lieu of ocean disposal.

The anticipated beneficial affects of land application which you cite in the Final EIS are not universally recognized. As recently as January 3, 1990, the U.S. Department of Interior, Bureau of Land Management stated that they would prohibit the disposal of sludge on public lands based upon the risks and problems associated with sewage sludge. Even though the Bureau of Land Management may have erred in its finding, this kind of position has a damaging affect on the acceptability of land application by landowners and local governments.

Enclosed for your review are the District's comments on the Final Environmental Impact Statement. I hope you will give our comments serious consideration and revise your recommendation to support our sludge disposal plan. I would appreciate an opportunity to meet with you or your staff at your convenience to discuss our concerns and negotiate a mutually acceptable solution to this problem.

Sincerely,


Carol B. Thompson
City Administrator/
Deputy Mayor for Operations

Enclosure

FINAL ENVIRONMENTAL IMPACT STATEMENT

SLUDGE MANAGEMENT STUDY, BLUE PLAINS WASTEWATER TREATMENT PLANT

- Detailed Comments -

1. We question whether the final EIS format is consistent with the requirements of NEPA. The final EIS document includes the executive summary from the draft EIS, plus the testimony and comments received by the U.S. EPA and your agency's response to the testimony. We believe this material should have been included in an Appendix to the Final EIS. We believe that the final EIS should be a "stand alone" document which would include all of the analysis which led EPA to its conclusions and recommendation. We recommend that EPA republish the full EIS with the corrections and comments resulting from the public testimony incorporated into the report and append the hearing transcript and written testimony.
2. The final EIS recommendation is based upon the U.S. EPA "beneficial use policy". However, the final EIS imposes a disposal system on the District of Columbia designed to benefit the surrounding states. We believe this application of the beneficial use policy is unfair and exceeds the authority of the U.S. EPA.
3. We believe that the Final EIS did not adequately respond to the region's comments as presented in the following correspondence:
 - Regulatory Review and Impact Assessment prepared by Engineering Science for the District of Columbia dated May, 1989, (M-89-1)
 - Review and Evaluation of Draft Environmental Impact Statement, prepared by CH2M Hill for the WSSC, dated June, 1989, (J-89-1)
 - Regional Comments from the Blue Plains User Jurisdictions, dated June 9, 1989, (J-89-28)
 - Comments from the Metropolitan Washington Council of Governments, dated June 21, 1989, (J-89-39)
 - Annotated Detailed Comments from the Metropolitan Washington Council of Governments, dated June 21, 1989, (J-89-40)
 - Letter from Carol B. Thompson, City Administrator/Deputy Mayor for Operations, dated June 30, 1989, (JL 89-1)

We specifically believe that the Final EIS did not adequately respond to the following comments and concerns presented by the Blue Plains users.

- o Uncertainty regarding the impact of future sludge management regulations on the long-term viability of land application.

We do not question EPA's technical calculation of sludge loadings under the proposed sludge land application regulations, but we do believe that the overall effect of the proposed regulations will be to limit public acceptance of land application. We also believe that the EIS recommendation reflects EPA's willingness to "gamble" that sludge land application will remain an acceptable solution in the future. We do not believe it would be prudent to risk future sludge disposal problems given the uncertainty regarding future land application regulations.

- o The significant difference between the availability of permitted land and actual availability of land for sludge disposal.

EPA failed to respond to the District's request dated June 30, 1989 for a copy of the data used by EPA to support the Final EIS assertion that sufficient land is available for land application of sludge. We believe there is considerable difference between land permitted for sludge disposal and land actually available for sludge disposal on any given day. Land owners often agree to sign a contract to accept sludge and then later decide to plant crops, making that land unavailable for sludge disposal. We do not believe the Final EIS adequately analyzed this problem.

- o The affect of prior loadings on permitted land's ability to accept additional sludge loadings.

We also do not believe that the Final EIS adequately analyzed difficulties which will arise from land permitted for the disposal of sludge from more than one wastewater treatment plant. We believe this "double counting" of land makes land application appear unreasonably attractive.

- o The impact of weather on land application.

The Final EIS does not give adequate consideration to the vulnerability of land application to wet or cold weather. Several times in the past year the District has had to stockpile sludge due to contractor's inability to haul sludge due to bad weather. The potential for a sludge disposal crisis increases as sludge volumes increase and on-site storage capacity decreases in the future.

- o The impact of limited storage capacity on the viability of land application.

While the State of Maryland professes to support land application, their sludge storage facility siting practices limit the success of the District's land application program. Maryland has requested that wastewater treatment plants provide on-site storage of sludge. This is an obvious problem for the District which lacks adequate storage capacity. Several Maryland and Virginia counties have taken independent action to limit sludge storage or land application. We believe this practice will increase in the future and severely impact the District's ability to manage a land application program.

- o The impact of competition with other East Coast local governments for land application sites.

We believe that as other East Coast municipalities move from ocean disposal to other forms of sludge disposal, land application will increase in this region. We believe that competition for land will significantly drive up the cost of land application and make the securing of sites more difficult.

- o The cited errors in the cost comparison between land application and incineration.

We believe that the Final EIS did not adequately respond to our comments that the cost comparison between land application and incineration was inaccurate. Specifically, we believe that energy costs and administrative costs were not calculated correctly in the Final EIS, and that these errors favored land application.

- o EPA's rejection of the region's assertion that land application will be subject to inflationary cost increases in the future.

We believe that EPA's statement that land application costs will not escalate in the future is wrong. We believe that costs will escalate due to increased transportation costs, increased labor costs and increased competition for land for sludge disposal. If this region continues to develop as it has in the past decade, and as projected in the Chesapeake Bay Program 2020 Report, land for sludge disposal will become increasingly difficult to find. We believe this will have a significant affect on the future cost of land application.

- o EPA's lack of concern about the long-term reliability of land application given the fact that the District controls no land suitable for land application, and that the District would be dependent upon annual contracts with private firms for providing this vital municipal service.

Sludge disposal is a basic municipal service which must be provided every day. The Final EIS recommends a sludge disposal process which makes the District completely dependent upon other governments, private contractors and private landowners for providing this service. We believe this presents an unacceptable risk given the quantity of sludge involved. The Final EIS fails to give this concern adequate consideration.

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF PUBLIC WORKS
2000 14TH STREET N.W.
6TH FLOOR
WASHINGTON D.C. 20009

OFFICE OF THE DIRECTOR



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Stamp: MAY 07 1990
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APR 30 1990

Mr. Greene A. Jones, Director
Environmental Services Division
U. S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

Dear Mr. Jones:

The D. C. Department of Public Works respectfully submits these comments in opposition to the Final Environmental Impact Statement ("FEIS") dated March 30, 1990, for the Blue Plains sludge management plan. I believe the FEIS does not comply with the procedural requirements of the National Environmental Policy Act ("NEPA"). It completely omits discussion of an important viable alternative; and in several respects, as discussed below, it does not comply with the substantive requirements of NEPA. Moreover, the executive summary and Environmental Protection Agency ("EPA") responses to comments on the Draft Environmental Impact Statement ("DEIS") betray an unwarranted bias in favor of the land application alternative and against the incineration alternative.

The significant changes in the various draft EIS documents over the past four years, from initially supporting incineration, then composting and finally land application were not based on any new technical or environmental information. I believe EPA's reasons for rejecting sludge incineration in favor of land application are political and economic rather than environmental or technical considerations. Our opposition to the EIS document are provided below.

A. NEPA Procedural Requirements

The FEIS violates the procedural requirements of NEPA and the Council on Environmental Quality ("CEQ") regulations. The FEIS does not contain a required section

discussing the alternatives, including the proposed action, as required by NEPA Sections 102(2)(C) and (E), and the CEQ regulations at 40 C.F.R. Part 1502.14. Nor does the FEIS include required sections on the affected environment, nor on the environmental consequences of the proposed action. Failure to address these issues, including discussion of direct and indirect effects, land use conflicts, environmental effects of the alternatives, energy requirements and conservation potential of the alternatives, or mitigation of adverse environmental impacts, as required by 40 C.F.R. Part 1502.16 leaves the final EIS an incomplete document. The omitted sections of the FEIS go to the very heart of NEPA's purpose. An EIS with no discussion of alternatives or the environmental consequences of the proposed action is clearly insufficient to provide decisionmakers and the public with a full and fair discussion of the environmental impacts of the proposed action.

The nine-page executive summary in the FEIS, which the CEQ regulations contemplate as a separate section in addition to the omitted sections, (40 C.F.R. Part 1502.10(b)), cannot take the place of a true environmental impact statement. In lieu of the required omitted sections listed above, the FEIS explains how comments on the DEIS were handled (with comments and EPA responses attached), and then indicates only that, "[t]here have been comments made that will be incorporated into the Draft EIS. The Draft EIS will be amended to reflect these comments and will then be adopted as amended."

EPA's confusing and novel procedure of indicating the manner in which The DEIS will be amended in the future does not satisfy the NEPA requirements for an FEIS. It also raises a number of questions about compliance with the procedural requirements of NEPA. Will the Record of Decision ("ROD") be based on the FEIS; the DEIS as amended, or a combination of the FEIS and the DEIS (as amended or unamended)? When will the amended DEIS be available, and will it be subject to public comment? Is the FEIS merely a supplemental DEIS? If so, will a true FEIS be prepared in the future?

These questions indicate that the FEIS, as written, impedes public review of the document. If EPA's intent is to incorporate parts of the DEIS into the FEIS by reference, the District questions whether incorporating the very heart of the FEIS by reference complies with NEPA. In any event, EPA made no indication that the DEIS, or any parts of the DEIS, should be incorporated by reference into the FEIS.

B. Failure to Discuss Alternatives

The FEIS is seriously inadequate in its failure to discuss important, appropriate, and clearly reasonable alternatives for sludge treatment at Blue Plains. The CEQ regulations require that the preparer of an EIS "[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." (40 C.F.R. Part 5012.14(a)). The FEIS does not consider, even briefly, the alternative of a combination of incineration and land application. This unaddressed alternative goes far beyond evaluating the incineration alternative both with six fluidized bed furnaces and with four fluidized bed furnaces.

An incineration/land application alternative would require both a separate energy cost analysis and a separate capitalization cost analysis. Moreover, the combination alternative would require a separate aesthetic impact analysis because an incinerator built under such an alternative would likely have only one stack.

In this case, the alternative of a combination of incineration and land application was clearly a reasonable alternative that should have been discussed in detail in the FEIS. The FEIS is therefore insufficient as a full disclosure document to fully inform decisionmakers and the public about reasonable alternatives for the project.

The FEIS also does not consider anaerobic digestion as a sludge management option. EPA notes, without discussion or explanation, that anaerobic digestion was beyond the scope of the DEIS. (FEIS at 139).

C. Specific Objections to the FEIS

In addition to the procedural errors noted above, the District has the following specific objections to the FEIS.

1. Energy Cost Analysis

EPA's responses to comments do not adequately address the value of energy produced by the incinerator which will be captured for electrical production. EPA summarily dismissed comments on this weakness by alleging that fertilizer displacement costs and the energy saved from the displacement outweigh the incinerator's energy output without any data to back up its allegations.

2. Resource Recovery

EPA does not recognize sludge burning as resource recovery in the FEIS, yet recognizes hazardous waste

incineration as recycling under Subtitle C of RCRA. Sludge incineration and use of the recovered energy is resource recovery. This factor should be weighted in the discussion of the incineration alternative in the same way that resource recovery is considered to be a benefit of land application. EPA states that "while the incineration alternative has certain management advantages, and it appears from the air emissions modeling (see FEIS at 111-113) that it will not violate existing regulations, it does not meet NEPA's purpose as effectively as does land application." (FEIS at 65). As noted, however, in this section and in section C.1, incineration is more likely to meet "EPA's goals for maximum reuse of resources and minimization of energy use." (FEIS at ES-7).

3. Long-term Harm of Land Application

EPA does not recognize or incorporate into the FEIS the long-term impacts of land application sludge disposal, which causes long-term irrecoverable metals contamination of agricultural areas. The state and federal sludge disposal rules, both existing and proposed, acknowledge this contamination by limiting sludge application.

In addition, land application does not preclude commercial fertilizer application in the long term. Although land application temporarily forestalls chemical fertilizer application, it leaves metal contaminated soils caused by sludge disposal to erode into adjacent surface and ground water bodies over the course of time.

4. Metals Concentration: Benefits of Incineration

EPA's comments and analysis in the FEIS do not acknowledge that incineration of sludge concentrates metals which are then disposed of in the finite area of a protected landfill. In contrast, land application spreads the metals over wide, unprotected areas, thus contributing to the long-term pollution of surface and ground water.

5. No Benefit to Chesapeake Bay

EPA's runoff study on nutrient transport in agricultural runoff is a single, small, flawed research study that should not be applied to a large scale land application situation like the one envisaged by the FEIS. Fertilizer and sludge have similar characteristics in terms of runoff and their impact on water quality in the Chesapeake Bay. There is, therefore, no benefit to the Chesapeake Bay by designating land application as the preferred alternative. EPA did not evaluate current practices within the study area to determine whether sludge

is replacing commercial fertilizer or adding a new source of nutrients to the basin.

EPA admits in the FEIS that "[t]here is not sufficient information available to estimate the possible benefit in reducing nutrient runoff from use of sludge." (FEIS at 59 - emphasis added). Yet in the Executive Summary, on the list of major benefits of the land application alternative, EPA states that the land application alternative "has a secondary benefit in that it reduces nutrient runoff to the Chesapeake Bay." (FEIS at ES-7). The preferred alternative should not be chosen, even indirectly or secondarily, on the basis of erroneous information. EPA, in another response in the FEIS, lists chemical fertilizer runoff reduction as "information . . . that has given significant support to the selection of land application as the preferred alternative." (FEIS at 123).

6. Adverse Effects

EPA states in the Executive Summary that one of the major factors behind EPA's selection of land application is that "[a]dverse environmental impacts are known to be minor and controllable." (FEIS at ES-7). As noted above in sections C.3 and C.4, this statement is incorrect. EPA based its erroneous conclusion on the fact that in discussions with county and state agencies, no significant adverse environmental impacts were identified. (FEIS at 59). If this were true, counties, states and the U. S. Department of Interior, Bureau of Land Management would not be limiting or banning land application, nor would EPA itself be in the process of promulgating regulations limiting land application. Moreover, lack of evidence elicited in conversations with certain local agencies is not positive proof that there are no significant adverse environmental impacts associated with land application. EPA's "major factor" of lack of adverse environmental impacts is, therefore, highly suspect.

7. Clear Trend Against Land Application

Contrary to EPA's wishful thinking, there is a clear and unmistakable trend in Maryland and Virginia toward increased regulation of land application. As noted in the FEIS, five legislative initiatives were introduced in the Maryland Legislature in 1988 to further regulate land application. In 1989, the number of initiatives rose to eight, three of which passed. (FEIS at 46-47). Talbot County, Maryland requires deed recordation when sludge is applied to the land, effectively halting land application of sludge. In addition, Carolina and Culpeper Counties in Virginia have prohibited land application of sludge. (FEIS at 124 and 369). Statements of support for land application from certain groups do not outweigh the plain facts

indicating a clear trend in local opinion and laws in opposition to spreading sludge on farmland. Nor does stating that additional land has been permitted for land application in the past five years somehow counterbalance or eliminate increasingly negative public opinion toward land application.

8. EPA Part 503 Technical Regulations

EPA's Part 503 Technical Regulations have an enormous potential impact on the land application alternative, substantially increasing costs, increasing land requirements up to 3-5 times, and creating a negative public perception of land application because of the risk assessment methodology used in the proposed regulations that may affect land availability. EPA cannot dismiss any discussion whatsoever of the Part 503 regulations simply because they have not been promulgated in final form. The regulations were proposed and subjected to public comment months ago. EPA should certainly have the capacity to find out from within the agency whether there will be substantial modification of the Part 503 regulations. If there are to be substantial modifications to the Part 503 regulations, those modifications must certainly be well under way, since EPA itself plans to promulgate the regulations in final form this year. Under the circumstances, it is clearly reasonable to expect some discussion of the effect of the Part 503 regulations in the FEIS. In addition, EPA should publish a Supplemental EIS when the Part 503 regulations are promulgated in final form.

9. Cumulative Impacts

EPA fails to disclose the cumulative impacts of other facilities in the area that are also using land application and the potential impact of these facilities as land area decreases and permitted sites reach their capacities.

EPA ignores previous loadings of sludge and fertilizers on the land application areas. Without explanation, EPA says that it was beyond the scope of the DEIS to evaluate the previous loadings of sludge or other fertilizers on the land application areas. (FEIS at 55). In order to establish the true environmental impact of the land application alternative, past action must be considered together with future plans. Otherwise, the adverse environmental impact could be disastrous.

EPA's recommendation ignores its own requirements for long-term sludge disposal contracts with landowners. The State of Maryland and the State of Virginia do not issue long-term permits, but only single application permits. As a result, the uncertainty of the long-term reliability of

the land application alternatives creates unreasonable risks. Moreover, the entire land application program will have to be restructured annually. Contractors are subject to the same annual permitting requirements.

10. Land Application Storage

The FEIS, and in particular the cost analysis, ignores expensive storage requirements and associated costs, and ignores both the negative aesthetic impacts of sludge storage, and vector control requirements. Moreover, limited seasonal availability of land for land application requires substantial storage capacity, which would not be required with a sludge incineration facility.

EPA received storage information from interested, and therefore potentially biased, land application contractors. Yet EPA made no effort to verify the information received from the contractors, other than to say that information agrees with information received from "the states." (FEIS at 86). However, EPA made no effort to verify the information received from the states, either. That information could also have originally come from land application contractors.

11. Urban Growth

EPA ignores the inevitable growth in this urban area that will result in increased travel distances, and less acreage for land application.

12. Cost Analysis

Accurate cost analysis shows that EPA's preferred alternative is \$11.1 million dollars more per year than EPA estimates. (See CH2M Hill comments dated June, 1989 (J-39-1) page 1-10). Present worth cost estimates are \$68 million higher for land application than for incineration over the life of the project.

13. Implementability

EPA fails to consider in the FEIS that the financial burden of implementing the land application alternative will fall on local ratepayers, with no federal sharing of costs. This certainly affects the implementability of the land application alternative. Although this issue was raised in a comment on the DEIS, (FEIS at 119-120), it was ignored by EPA.

14. Bias

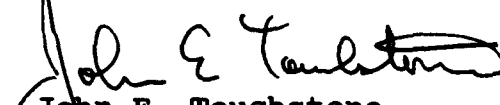
The preparer of an EIS must show a good faith objectivity in the environmental effects analysis. (Isle of

Hope Historical Ass'n, Inc. v. United States Army Corps of Engineers, 646 F.2d 215 (5th Cir. 1981)). The CEQ regulations require that "environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made." (40 C.F.R. Part 1502.2(g)).

It was apparent in the DEIS that EPA had already made up its mind to prefer land application over the incineration alternative. Comments made on the DEIS during the public comment period appear not to have been given serious consideration. To the extent that the District must implement the program as outlined by EPA, the District is forced into an extremely difficult situation because of the practical problems with the preferred alternative. EPA has recommended a sludge disposal method over which the District of Columbia has no control over the disposal sites nor their availability. Because EPA did not objectively consider the incineration alternative, as discussed above, I believe its choice of land application as the preferred alternative was predetermined.

The Department of Public Works is keenly interested in developing a workable sludge disposal program which combines EPA's desire for maximum reuse of the sludge produced at Blue Plains, with the District's need for a permanent disposal facility under our direct control. I am troubled that EPA has ignored previous requests for arriving at a mutually agreeable solution. I am available to meet with you at your convenience to work towards this goal.

Sincerely,



John E. Touchstone
Director of Public Works



COMMONWEALTH of VIRGINIA

Department of Historic Resources

221 Governor Street
Richmond, Virginia 23219

TDD (804) 786-1934
Telephone (804) 786-3143
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June 13, 1990

RECEIVED

JUN 20 1990

Mr. Edwin B. Erickson
Regional Administrator
United States Environmental
Protection Agency, Region III
841 Chestnut Building
Philadelphia, PA 19107

EPA, REGION III
OFFICE OF REGIONAL ADMINISTRATION

RE: Blue Plains Wastewater Treatment Plant, Washington, D.C.
DHR file # 5454-AX

Dear Mr. Erickson:

Thank you for providing the Virginia Department of Historic Resources with a copy of the Final Environmental Impact Statement for the Blue Plains Wastewater Treatment Plant. We support EPA's preferred alternative of Land Application. This alternative will not require the construction of a multi-story building to handle the disposal of sludge.

We are concerned about visual impacts to the Alexandria Historic District for a proposed alternative that would involve construction of a tall building or incinerator stacks. The Alexandria Historic District is listed on the National Register of Historic Places and has been designated a National Historic Landmark by the Secretary of the Interior. Therefore, we have no objection to any alternatives that would not visually impact the Alexandria Historic District.

Please contact Elizabeth Hoge if we can be of further assistance.

Sincerely,

H. Bryan Mitchell
Deputy State Historic Preservation Officer

cc: Advisory Council on Historic Preservation



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