Executive Summary

Purpose of the Document

The purpose of this integrated Engineering Feasibility Study (EFS) and Environmental Impact Statement (EIS) for Washington Aqueduct Water Treatment Residuals is to evaluate alternatives for managing its water treatment residuals. This process, which commenced with development of a Draft Environmental Impact Statement (DEIS), is necessary for the Washington Aqueduct to comply with its National Pollutant Discharge Elimination System (NPDES) NPDES Permit (Permit No. DC0000019) within the Federal Facility Compliance Agreement (FFCA) deadlines.

The Environmental Impact Statement (EIS) was prepared in accordance with the National Environmental Policy Act (NEPA) and supporting regulations promulgated by the Council on Environmental Quality and the United States Army Corps of Engineers. The Draft Environmental Impact Statement (DEIS) was prepared and was issued on April 22, 2005.

Members of the public, regulatory agencies and other stakeholders were encouraged to review and comment on the draft document during the 75-day comment period following its publication. A public hearing was held on May 17, 2005 to formally receive public comment on the DEIS. The 30 day extension to the original 45 day public comment period as well as the tandem informational meeting held prior to and during the public hearing to answer questions were provided to allow for additional public involvement regarding the evaluation of alternatives for managing Washington Aqueduct's water treatment residuals.

The FEIS was prepared at the completion of the DEIS public comment period. Responses to the comments, as well as, a full description of the environmental, social, and economic consequences of implementing the preferred and other feasible alternatives were incorporated into the document.

All public comments received at the public hearing, as well as those submitted during the extended public comment period, are addressed in the EIS Comments and Responses Volumes 3C and 3D. Comments and Responses Volumes 3A and 3B address the public input provided prior to issuance of the DEIS. The Response to Comments table, included in Volume 3 of the EIS was extensively modified to fully address the comments received. These responses include discussions of new sub-topics in the areas of Facility (BH through BM), Pipeline (DK through DM), Schedule (FF through FG), Trucking (GJ through GK), Human Health and the Environment (KD), Government (MD), EIS Process (NE through NH), Residuals Handling in Other Metropolitan Areas (PB) and Residuals Alternatives (QB through QD.)

The FEIS is the evidentiary basis for the Record of Decision (ROD) developed by the Baltimore District of the Corps of Engineers that identifies the alternative to implement. Throughout the remainder of this document, although they were developed sequentially in time, their content is similar. Thus, for ease of reference the DEIS and FEIS are called the Environmental Impact Statement (EIS).

Background and Project History

The Washington Aqueduct, a Division of the U.S. Army Corps of Engineers (USACE), Baltimore District, operates the Dalecarlia and McMillan Water Treatment Plants (WTPs) in the District of Columbia (DC), serving over 1 million persons in the DC and northern Virginia area (metropolitan service area) with potable water. The water treatment process removes solid particles (e.g., river silt) from the Potomac River supply water, treats and disinfects the water, and then distributes the finished water to the metropolitan service area. The permit issued in March 2003 placed effluent limitations on total suspended solids and iron and aluminum. These limitations do not preclude discharge of the solids to the river; however, they would require dilution that was calculated to be almost 25 percent of the 230 million gallons per day design year capacity of the treatment plant. This alternative as evaluated in the initial screening process as Alternative 9 and was not carried forward due to inconsistency with screening criteria.

The NPDES permit (DC0000019) was originally issued on March 19, 2003, and amended and reissued on February 27, 2004. It supersedes two previously issued NPDES permits (DC0000019 and DC000329) issued on April 3, 1989 and February 4, 1998 respectively. Because the Clean Water Act does not allow EPA to include a compliance schedule delaying attainment with discharge limits, and it is recognized that the Washington Aqueduct could not immediately comply, EPA and the Washington Aqueduct entered into the FFCA to provide an enforceable compliance schedule for achieving the effluent limitations in NPDES Permit No. DC0000019 as expeditiously as possible. EPA and Washington Aqueduct entered into the FFCA pursuant to the Clean Water Act, 33 U.S.C. §§1251-1387 and Executive Order No. 12088 (Federal Compliance with Pollution Control Standards). The FFCA provides a legally mandated plan for the Washington Aqueduct to achieve and maintain compliance with the NPDES Permit and thus the Clean Water Act.

Consequently, Washington Aqueduct has evaluated water treatment residuals management alternatives that minimize or eliminate the discharge of residuals to the river. Washington Aqueduct developed objectives for the proposed residuals management process with the intention of ensuring compliance with all permit and other legal mandates, and preserving or improving upon the safety, reliability, and efficiency of the current water treatment process. In addition, Washington Aqueduct incorporated into the objectives a concern for minimizing impacts to the human and natural environment.

The following objectives define the purpose and need for the proposed residuals management process assessment and were listed in the Notice of Intent, published in the *Federal Register* on January 12, 2004. (Measurement indicators are shown in parentheses).

- To allow Washington Aqueduct to achieve complete compliance with NPDES Permit DC0000019 and all other federal and local regulations.
- To design a process that will not impact current or future production of safe drinking water reliably for the Washington Aqueduct customers. (Peak design flow of drinking water).

- To reduce, if possible, the quantities of solids generated by the water treatment process through optimized coagulation or other means. (Mass or volume of solids generated).
- To minimize, if possible impacts on various local and regional stakeholders and minimize impacts on the environment. (Traffic, noise, pollutants, etc.).
- To design a process that is cost-effective in design, implementation, and operation. (Capital, operations, and maintenance costs).

Proposed Action

The proposed action is to develop, design, and construct a permanent residuals management process that will cost-effectively collect, treat, and dispose of the water treatment residuals in conformance with the purpose and need stated in Section 1. The selected action must meet the Federal Facility Compliance Agreement (FFCA) compliance deadlines (Figure ES-1). It must also address the management of projected residuals quantities for a period of at least 20 years. Table ES-1 lists the current and future volume of water treatment and Forebay residuals generated daily as estimated for the Engineering Feasibility Study (EFS) (Volume 4 of EIS). This table also presents the truck loads associated with residuals quantities, based on a five day week. Of the alternatives evaluated in detail in this EIS only the No Action Alternative does not use trucking for final disposal of dewatered residuals. Trucking for Alternatives B, C, and E, defined in detail below, require similar haul distances. The larger residuals values listed in the design year columns reflect the larger quantity of water demand anticipated 20 years in the future.

TABLE ES-1
Washington Aqueduct Basis for Residuals Quantities

	Daily Generated Volume (Cubic Yards)[a]		Truck Loads/Day[b]			
			22 Cubic Yards/ Truck		11 Cubic Yards/ Truck	
Residuals[c]	Current Average	Design Year Average	Current Average	Design Year Average	Current Average	Design Year Average
Water Treatment	94	120	7	8	13	16
Forebay	22	28	2	2	3	4

[a] Based on 7 days per week production.
[b] Based on hauling to a final disposal site 5 days per week.
[c] Density of dewatered solids is 67 lbs/cubic foot, thus 1 ton equals 1.1 cubic yards (i.e. 22 cubic yards = 20 tons)

Development of Alternatives

The first step in the National Environmental Policy Act (NEPA) alternative identification process was to review the project history and compile a full range of possible alternatives that had the potential to meet the stated purpose and need. Washington Aqueduct has been evaluating residuals management approaches for a number of years due to changes in, or

expected changes, in regulations. During that time EPA concluded the multi-year NPDES renewal process and many alternatives were identified. Some of these alternatives are no longer consistent with the regulatory requirements defined in the 2003 NPDES permit and associated FFCA. None of the alternatives were screened out based on FFCA schedule alone.

A total of 160 residuals management alternatives and eight options were identified and screened to determine if they could be carried forward for detailed evaluation in the EIS. Twenty-six of these alternatives were identified from a combination of historical documentation and ideas provided by the public during an initial Scoping period in early 2004. The remaining alternatives were identified during subsequent opportunities for public input in the third and fourth quarter of 2004 and the first quarter of 2005.

All of the alternatives have been incorporated into the list of alternatives detailed in Volume 4 of this EIS, the Engineering Feasibility Study Compendium, and summarized in the Section 2 of this report. The original objectives as published in the Notice of Intent have remained in effect.

To facilitate the screening process and to make it easier for the reader to cross-reference this document with the other EIS volumes, the residuals alternatives were grouped into one of the following categories before they were screened:

- No Action Alternative
- Alternatives that do not require continuous trucking from the Dalecarlia WTP
- Alternatives with a discharge to the Potomac River
- Alternatives involving alternate uses of the Dalecarlia Reservoir
- Alternatives with facilities at the McMillan Water Treatment Plant (WTP)
- Alternatives with facilities at the Dalecarlia WTP (involving trucking from Dalecarlia WTP Complex)

These categories recognize the similarity of many of the alternatives, grouping alternatives by common critical components, such as method of dewatering or disposal, or location of processing facilities. Once categorized, all residuals alternatives and options were evaluated using the same screening criteria. Volume 4 of this EIS provides detailed technical information on each alternative, as well as a complete description of the screening evaluation and results.

Alternatives Evaluated in Detail in the EIS

The alternatives screening process concluded that five of the 160 screened alternatives were consistent with the purpose and need of the project or required by NEPA to be evaluated in detail. All of these remaining alternatives, except the No Action alternative, have several common residuals collection and unthickened liquid residuals conveyance facilities. The common facilities include new residuals dredge collection, pumping, and conveyance facilities located at the Georgetown Reservoir and new residuals collection equipment, pumping, and unthickened conveyance piping located at the Dalecarlia WTP sedimentation basins. The five alternatives, including their common facilities, have been evaluated in more detail in this EIS to determine their impacts. While none of the alternatives, with the exception of the No Action alternative, avoid conveyance of residuals by truck, they vary the location and impact by trucking.

The five alternatives to be evaluated in detail were designated alternatives A through E following the completion of the extended screening process as follows:

Alternative A: Dewatering at Northwest Dalecarlia Processing Site and Disposal by Monofill

Alternative A does not require continuous trucking from the Dalecarlia WTP site. With this alternative, residuals would be collected continuously from the Dalecarlia Sedimentation Basins, periodically dredged from the Georgetown Reservoir and pumped to new residuals thickening and dewatering facilities located on the Dalecarlia WTP at a site in the northwestern corner of the property designated the Dalecarlia WTP Northwest site. Following dewatering, the residuals would be trucked across MacArthur Boulevard and disposed of in a new monofill constructed in the Dalecarlia Woods area of the Dalecarlia WTP complex.

Residuals processing, including gravity thickening and dewatering would occur at the Dalecarlia WTP Northwest site with this alternative. Following processing, trucks would haul the residuals across MacArthur Boulevard and up Little Falls Road to the monofill disposal site. On average, eight 20-ton truck loads of water treatment residuals would be hauled to the monofill site each day.

As currently conceived the residuals disposal monofill would be approximately 50 ft tall on the Dalecarlia Parkway side and 80 ft tall on the Dalecarlia Reservoir side. The footprint of the monofill is anticipated to occupy approximately 30 acres.

Alternative B: Dewatering at Northwest Dalecarlia Processing Site and Disposal by Trucking

For alternative B, residuals are collected from the Georgetown Reservoir and the Dalecarlia WTP sedimentation basins and conveyed to the Dalecarlia WTP similar to Alternative A. Once dewatered, residuals are contract hauled to a final disposal site.

Residuals processing, including gravity thickening and dewatering would occur at the Dalecarlia WTP Northwest site with this alternative. Following processing, the dewatered residuals would be contract hauled to a permitted offsite disposal facility. On average an estimated eight truck loads per day (5 days per week) of dewatered residuals are expected to be transported from the Dalecarlia WTP site. Higher numbers of truck loads, as defined in Volume 4 (Engineering Feasibility Study Compendium), would be required during infrequent peak residuals production periods.

Alternative C: Thickening and Piping to Blue Plains AWWTP

Alternative C does not rely upon trucks to transport dewatered residuals from the Dalecarlia WTP, but it does require transporting by truck from the Blue Plains AWWTP. Residual processing at the Dalecarlia WTP site is limited to gravity thickening with this alternative. Thickened residuals are then pumped through a dedicated pair of pipelines to the Blue Plains AWWTP for dewatering. Residuals disposal is accomplished via contract hauling and off-site disposal. The proposed route for the dedicated thickened residuals pipeline follows the west bank of the Potomac River to the Blue Plains AWWTP.

Alternative D: No Action Alternative

Although not consistent with the purpose and need of the project, Alternative D, the No Action Alternative, is retained as a NEPA requirement. This alternative assumes that residuals would continue to be discharged directly from the Dalecarlia WTP sedimentation basins and the Georgetown Reservoir to the Potomac River in the future. This practice would be in violation of the solids concentrations defined in the NPDES permit discharge limits.

Alternative E: Dewatering at East Dalecarlia Processing Site and Disposal by Trucking

This alternative is similar to Alternative B, except residuals processing is accomplished at a site on the eastern portion of the Dalecarlia WTP (and Reservoir) property designated as the East Dalecarlia Processing Site. Following processing, the dewatered residuals would be contract hauled to a permitted offsite disposal facility. An estimated eight 20-ton truck loads per day (5 days per week) of dewatered residuals are expected to be transported from the Dalecarlia WTP site on average. Higher numbers of loads trips, as defined in Volume 4—Engineering Feasibility Study Compendium, would be required during peak residuals production periods.

Evaluation of Impacts

The potential for and significance of environmental, social, and economic consequences associated with implementing any of the project alternatives is described in this FEIS. The specific resource areas evaluated are:

- Land use
- Noise
- Air quality
- Aquatic resources
- Biological resources
- Cost
- Cultural resources
- Hazardous, toxic, and radioactive substances
- Implementation uncertainty
- Soils, geology, and groundwater
- Infrastructure
- Land application
- Public health
- Transportation
- Visual resources
- Social and economic resources, including Environmental Justice and Protection of Children

Criteria for evaluating potential impacts and determining their significance were determined by the CEQ (40 CFR 1508.27). The regulations state that significance is determined by the intensity or severity of the impact and the context in which it occurs. Intensity criteria were based on the following:

- The degree to which the action affects public health or safety

- The degree of change to unique geographic characteristics, such as visual quality, prime agricultural land, archaeological sites, wetlands, or ecologically critical areas
- Potential for environmental or scientific controversy
- Known or unknown level of risk
- Potential for establishing a precedent for future actions or representing a decision in principle about a future consideration
- The relation of impact to other actions, individually insignificant but with cumulative impact
- The proximity of the action to resources that are legally protected by various statutes, such as wetlands, historic properties listed in the National Register of Historic Places, regulatory floodplains, and federally listed threatened or endangered species
- The potential for violating federal, state, or local laws or requirements in place to protect the environment

Using these criteria, the following levels of impacts were identified:

No Impact—implementation of the action has little or no effect upon the resource.

No Significant Impact—implementation of the action has an impact, either adverse or beneficial, but it does not meet the significance criteria for the given resource relative to intensity and context.

Significant Impact—the predicted impact, either adverse or beneficial, meets the significance criteria for the given resource. Significant impacts may be reduced to a not significant level by implementing appropriate mitigation measures.

The cumulative impacts that could be associated with the implementation of the proposed action in concert with one or more other past, present, or reasonably foreseeable future actions or projects are also evaluated. Specifically, this evaluation is prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) and guidance from the CEQ, *Considering Cumulative Effects Under the National Environmental Policy Act*.

Selection of the Proposed Action

Each of the alternatives evaluated (with the exception of the No Action Alternative) necessitates developing infrastructure in an urban setting, characterized by important natural and man-made resources. All five of the alternatives (including the No Action Alternative) evaluated to meet this federally mandated action will carry some degree of impact. Of particular concern is the ability of an alternative to meet the project's purpose and need, while minimizing impacts to the communities surrounding the potential operations, no matter where they are located. Particular emphasis was naturally placed in evaluating impacts near the Dalecarlia Reservoir, Dalecarlia Water Treatment Plant (WTP), Georgetown Reservoir, and Blue Plains AWWTP facilities, as well as intermediate conveyance areas potentially impacted by Alternative C, the pipeline alternative. The Proposed Action for the EIS should be the alternative that best meets the objectives of the

project, as stated in the Notice of Intent (published in the *Federal Register* on January 12, 2004).

The following sources of information were considered by Washington Aqueduct while selecting the proposed action from the five possible residuals alternatives:

- Information on the potential impacts revealed by the technical evaluation (detailed in Sections 3 and 4 of this EIS),
- Ideas and concerns raised by the public during five open public meetings or submitted directly to Washington Aqueduct staff, and
- Consultations with regulatory authorities at the federal, state, and local levels (detailed in Section 4).

Both Alternatives A (Dewatering and Disposal by Monofill) and C (Thickening and Piping to Blue Plains AWWTP) have beneficial elements that contribute to the objectives of the Clean Water Act and NEPA by enabling the Washington Aqueduct to stop discharging residuals into the Potomac River and preventing residuals trucks from traveling on local community roads nearest to the Dalecarlia WTP facilities. However, implementation of Alternatives A and C would not allow Washington Aqueduct to comply with the Federal Facility Compliance Agreement schedule issued by the U.S. Environmental Protection Agency (USEPA), and they both would have significant long-term adverse impacts on various natural and community resources.

More specifically, during the course of this NEPA process, Washington Aqueduct has learned that the development of Alternative A is not consistent with the schedule for investigations of this site by the U.S. Army Corps of Engineers for its ongoing remediation efforts for the American University Experiment Station (AUES) Formerly Used Defense Site (FUDS) project. Further, Alternative C, like the other piping alternatives examined during the screening process, is not consistent with the District of Columbia Water and Sewer Authority's (DC WASA's) long-term plans for its Blue Plains AWWTP and is more than double the cost of each of the other alternatives. Both alternatives would have unacceptably large potential visual, cultural, forest habitat, and perhaps recreational, impacts.

Alternative D, the no-action alternative, cannot be selected by the Washington Aqueduct because it would place it in violation of the Federal Clean Water Act, the terms of it's NPDES permit, and the FFCA issued by USEPA. Throughout the EIS preparation process, USEPA has confirmed that they would be unwilling to modify the NPDES permit to allow the Washington Aqueduct to return to a residuals disposal practice consistent with the No Action alternative, despite the Washington Aqueduct's consideration of it and a number of similar river discharge alternatives during this process.

The Washington Aqueduct selected between Alternatives B and E for the proposed action. Both alternatives can be implemented within the required timeframe with a much greater degree of certainty than is possible for either Alternative A or C. The costs of these alternatives are consistent with the project budget, which is wholly dependent for financial support from the three local wholesale customers and the rate-paying public. Both alternatives, as did the other action ones, feature residuals processing with trucking, albeit to off-site disposal locations. They differ in the location of the processing facilities and the

location in which the trucks enter the local roadways. Alternative B would construct the residuals processing facility at the Northwest Dalecarlia WTP location and the trucks would enter the local roadways at the existing facility entrance to MacArthur Boulevard. Alternative E would construct the residuals processing facilities at the East Dalecarlia WTP location and trucks would enter the local roadways at the existing intersection of Little Falls Road and Dalecarlia Parkway. These differences form the basis of the tradeoffs between each alternative.

Alternatives B and E present equally feasible options, from an engineering perspective, for a residuals management program that eliminates residuals discharges to the Potomac River. Each would enable the Aqueduct to meet the conditions of the recent NPDES Permit No. DC0000019 within the schedule put forth in its Federal Facility Compliance Agreement with the USEPA. Alternative E offers advantages in the following areas:

- Less visual impact to surrounding residential neighbors
- Site topography allows impacts to be minimized
- Less truck noise attributable to loaded residuals trucks traveling uphill on Loughboro Road
- Greater distance between surrounding neighborhoods and proposed residuals processing facilities

Therefore, Alternative E—Dewatering at East Dalecarlia Processing Site and Disposal by Trucking is recommended as the Proposed Action for the residuals management program in this EIS.

Agency and Public Participation

During the preparation of the EIS, a public scoping period was held in January 2004. Also in 2004, four additional public forums were hosted by the Washington Aqueduct to provide interested members of the public with an opportunity to better understand the project and the proposed alternatives. The Washington Aqueduct also consulted with numerous local and federal agencies and elected officials as well as participated by invitation in a variety of forums hosted by community groups to continue to describe the project and the alternatives being evaluated in the EIS. The Aqueduct created and maintained a public web site devoted exclusively to this project.

Members of the public, elected officials, and regulatory agencies in the District of Columbia and Maryland used the public involvement process leading up to the publication of the EIS to provide input about the project and its proposed alternatives.

A summary of major public concern on EIS alternatives A through E communicated during this process is as follows:

Alternative A—Dewatering at Northwest Dalecarlia Processing Site and Disposal by Monofill

There was significant public concern about removing a 30-acre stand of mature, mixed hardwood forest and replacing it with a residuals monofill with a 20 year life span. Specific issues centered on the visual impact to nearby Maryland residences, operational impacts of light, noise and dust, the loss of biological resources that are currently protected from

human activity, and the potential for the water quality in the reservoir to be affected. Some area residents characterized this alternative as creating a permanent impact (clear cutting the forest) for a temporary solution (a monofill with capacity for 20 years of disposal).

The U.S. Army Corps of Engineers, Baltimore District, is leading the AUES FUDS environmental restoration project. Public information available during the scoping and alternatives screening phase of the EIS indicated that portions of Dalecarlia, including the monofill footprint contained solids with elevated arsenic concentrations. Surface arsenic remediation at the few areas where it is present in Area 13 of the AUES FUDS will be achievable within the timeframe required to build on the Dalecarlia Reservoir property. Subsequent to the screening phase, a meeting was held with the US Army Corps of Engineers Baltimore District office responsible for the AUES FUDS to further discuss this project. During this meeting, it was learned that an area within the monofill footprint historically known as the "Government Woods" may have been associated with the AUES World War One era research and testing activities. This suspicion has led the managers of the AUES FUDS to schedule soil investigation of portions of the Dalecarlia Reservoir property. This testing is scheduled in 2008 and the resulting remedial actions, if any, conflict with the Washington Aqueduct's timetable for FFCA compliance.

Alternative B—Dewatering at Northwest Dalecarlia Processing Site and Disposal by Trucking

Public concern developed focused on the appearance of the processing facilities. Specifically its potential to impact the visual character of the immediate area and to be seen by residents of Maryland's Brookmont neighborhood down gradient of the site's western boundary, residents of Windward Place and Leeward Place overlooking the site's northern boundary, and users of the portion of the Capital Crescent Trail passing through the Aqueduct's WTP property. Nearby residents have also provided input regarding operational issues of noise, light pollution, and the potential for odors.

Beyond the immediate neighbors, this alternative attracts public concern about truck traffic on area roads, which is viewed as a congestion, pedestrian safety, and residential foundation hazard. Various community representatives in comments have mirrored the concerns expressed by individuals, particularly related to an increase of truck traffic.

Alternative C—Thickening and Piping to Blue Plains AWWTP

Maryland and District of Columbia residents from the neighborhoods surrounding the Dalecarlia Reservoir and WTP have been largely supportive of this alternative because it involves the smallest amount of visibly-observed facility development in this geographic area and does not involve trucks carrying residuals on their area roads. In Alternative C the impacts associate with trucking residuals would be moved to Southeast District of Columbia. Under this alternative, the potential operational impacts of the residuals processing facility would be transferred to the Blue Plains AWWTP approximately 12 miles away in the opposite corner of the District of Columbia.

Three regional offices of the NPS have expressed significant concern about the pipeline corridor as it passes through the C&O National Historical Park and Georgetown Historic District, and areas adjacent to the Lincoln Memorial, the Franklin Delano Roosevelt Memorial, and Thomas Jefferson Memorial.

DC WASA evaluated the prospect of hosting the residuals processing facility at its Blue Plains AWWTP facility. They have determined that all potentially available site space must be reserved for planned facilities to accomplish greater wastewater nutrient removal and store and treat CSOs (see Engineering Feasibility Study Compendium—Volume 4 of the EIS for more detail on this issue). As a result, they cannot host the Washington Aqueduct's facilities as part of this alternative.

Alternative D—No Action Alternative

A portion of the public dialog has focused on the need for the Washington Aqueduct to change its current and historical practice of Potomac River residuals disposal. There has been some public support for this alternative, with the argument that a new residuals management process creates a set of land-based impacts that are greater than the impacts associated with water-based disposal. Neither the impact balancing that occurred during this NEPA process, nor the Clean Water Act, support this argument.

EPA has repeatedly expressed concern that continuation of the current process of returning residuals to the river would have undesirable impacts. From a resource agency perspective, the Washington Aqueduct received the current NPDES Permit No. DC0000019, and entered into an FFCA following 9 years of research and detailed discussion over the need to alter the residual disposal process from river discharges to and alternate process. An extensive administrative record was created by USEPA Region 3 to support this decision. Once made, the FFCA was needed to set forth a timetable for the Washington Aqueduct to meet NPDES Permit No. DC 000019. This permit for all practical purposes precludes continuation of river disposal. The failure to enter into the FFCA would have most likely resulted in USEPA revoking Permit No. DC0000019, or USEPA entering a unilateral order and schedule.

Alternative E—Dewatering at East Dalecarlia Processing Site and Disposal by Trucking

This alternative was derived from recommendations for several members of the public during the extended public comment period ending in mid-November 2004. It has the benefit of moving the facility further from the Brookmont neighborhood and will have better access to the Dalecarlia Parkway, reducing the local noise from the expected truck traffic. The building would be visible from the Westmoreland neighborhood that faces the reservoir, but it would be in the same sight line as the existing hospital high rise buildings. The topography of the site offers opportunities to minimize the visibility of the structures.

The concerns expressed by members of the public and various community representatives for Alternative E were similar to those expressed for Alternative B. Specifically, some individuals indicated a concern related to the appearance and operational aspects of the facilities with respect to it being located in a largely residential area and adjacent to Sibley Memorial Hospital. Emissions of pollutants such as light, noise and air pollutants were a common concern among many members of the public. Any increase to truck traffic on the roads in the District of Columbia and in Maryland, and the perceived potential increase on associated impacts, was objectionable to members of the public.

Beyond the immediate neighbors, this alternative attracts public concern about truck traffic on area roads, which is viewed as a congestion, pedestrian safety, and residential foundation hazard. Various community representatives in comments have mirrored the concerns expressed by individuals, particularly related to an increase of truck traffic.

Conclusion

The alternatives screening criteria are linked to the project's purpose and need. Washington Aqueduct developed them subsequent to the issuance of the Notice of Intent.

The production of safe drinking water delivered with one hundred percent reliability to Washington Aqueduct's wholesale customers at a reasonable cost must be maintained during construction and operation of the selected alternative. This is the inherent duty of the Washington Aqueduct.

The screening criteria were then applied to all of the alternatives -- those that were initially developed by Washington Aqueduct staff and consultants and those that were suggested by the public. Four alternatives met the screening criteria and their effects are evaluated in this EIS.

A fifth alternative, the "no action" alternative is also included.

While "no action" is an alternative that must be evaluated in any environmental documentation accomplished under the National Environmental Policy Act, EPA has repeatedly expressed concern that continuation of the current process of returning residuals to the river would have undesirable impacts. Alternative D is not consistent with the current NPDES requirements. The issuance of NPDES Permit DC0000019 which itself was evaluated in a public process pursuant to EPA regulations, requires some kind of solids collection and disposal process as an alternate to the current method of flushing them to the Potomac River.

Alternative E—Dewatering at East Dalecarlia Processing Site and Disposal by Trucking is recommended as the Proposed Action for the EIS because it best meets the purpose and need of the project.

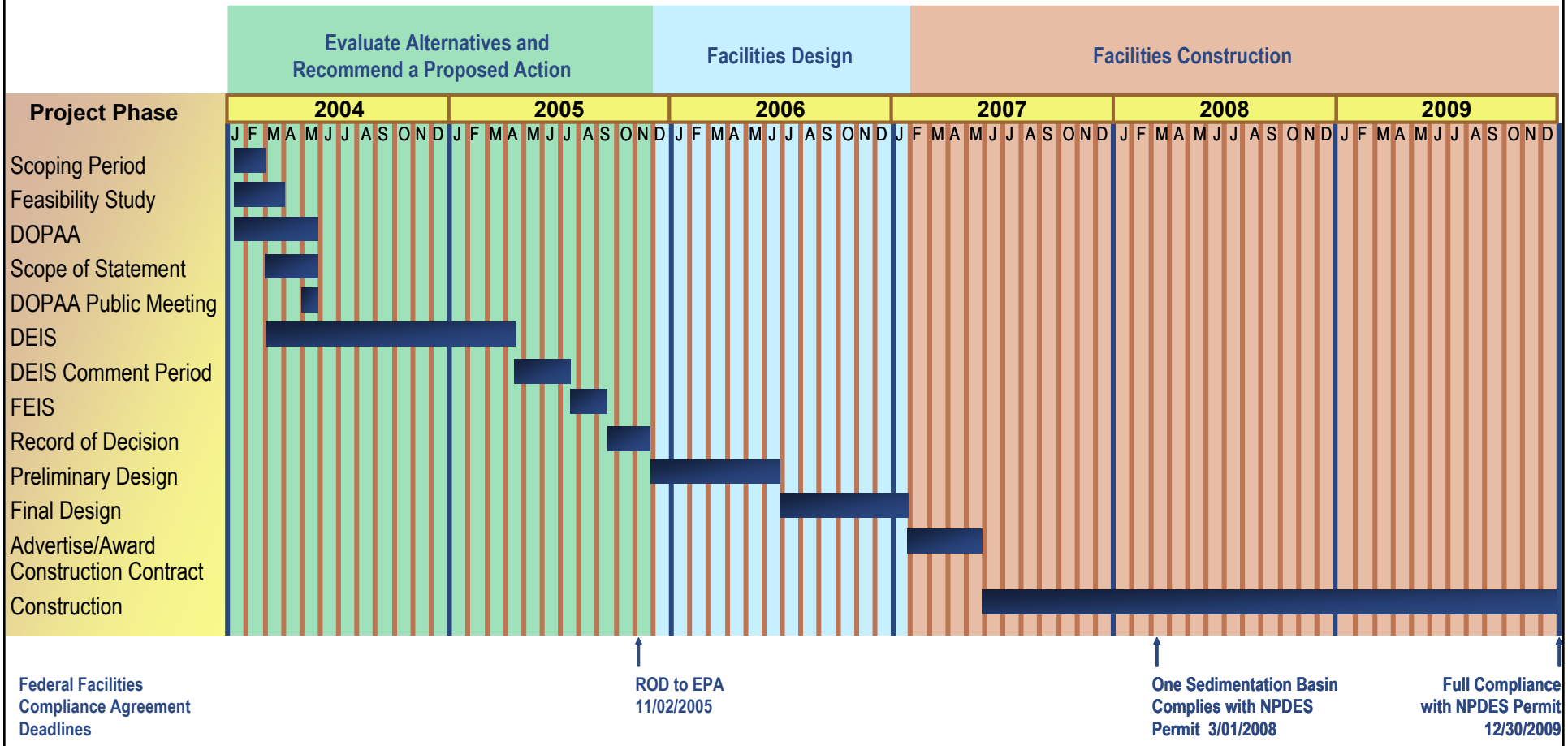

Figure ES-1
Project Schedule

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