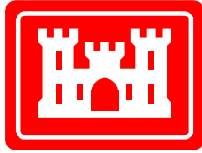
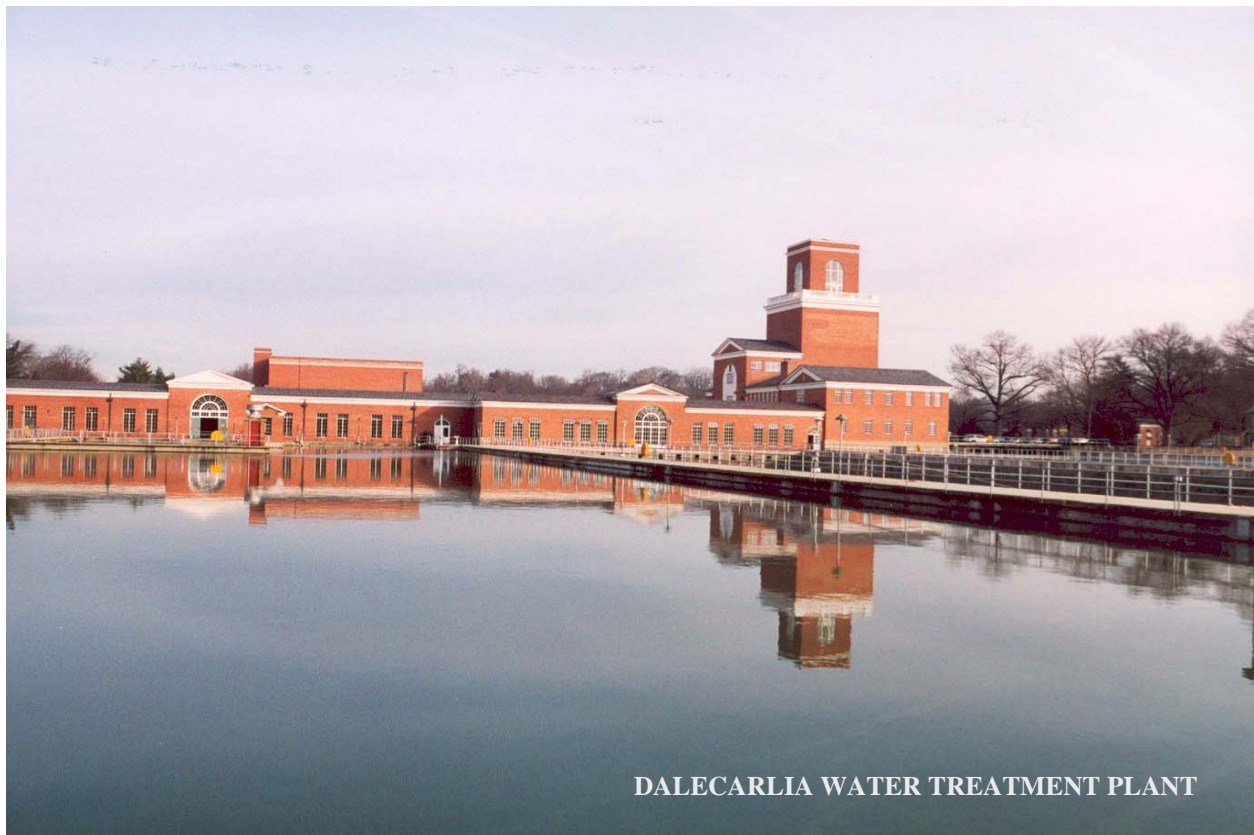


**FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR A PROPOSED WATER TREATMENT RESIDUALS  
MANAGEMENT PROCESS FOR THE WASHINGTON  
AQUEDUCT, WASHINGTON, D.C.**



**US Army Corps of Engineers**  
Baltimore District

**VOLUME 3A  
COMMENTS AND RESPONSES**



*Prepared by:*

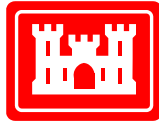
**U.S. Army Corps of Engineers, Baltimore District  
Washington Aqueduct  
5900 MacArthur Boulevard  
Washington, D.C. 20016**

**September 2005**

**FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR A PROPOSED WATER TREATMENT RESIDUALS MANAGEMENT  
PROCESS FOR THE WASHINGTON  
AQUEDUCT, WASHINGTON, D.C.**

**VOLUME 3A  
COMMENTS AND RESPONSES**

**Prepared by:**



U.S. Army Corps of Engineers  
Baltimore District  
Washington Aqueduct  
5900 MacArthur Boulevard  
Washington, D.C. 20016

**and**



**In Cooperation with:**



This Final Environmental Impact Statement (FEIS) describes a proposed project to alter the Washington Aqueduct's current practice of discharging water treatment residuals to the Potomac River to one of instead collecting, treating, then disposing of the residuals at an alternate location. Over 160 alternatives were considered and screened, and four of these, plus the no-action alternative were evaluated in detail to determine the potential for environmental, engineering, and economic impacts. A proposed action, the environmentally preferred alternative, is identified; It involves collection of the residuals at the Dalecarlia Water Treatment Plant and Georgetown Reservoir, treatment of residuals at an East Dalecarlia Processing Site on government property that is located north of Sibley Memorial Hospital in the District of Columbia, and then disposal of residuals by trucking on major streets to licensed land disposal sites likely located in Maryland or Virginia.

For further information, please contact:

Mr. Michael Peterson

at the address above or at

(202) 764-0025 or

[Michael.C.Peterson@usace.army.mil](mailto:Michael.C.Peterson@usace.army.mil)

**September 2005**

Volume 3 of the EIS includes the response to comments information. All comments and questions received from the public through e-mails and public meeting transcripts prior to publishing the DEIS and during the DEIS public comment period are evaluated and answered within this document. The unique names of those who provided comments have been removed to protect their privacy. In this volume of the EIS, a legend for comment type, the responses to each comment type, and a customized copy of each source document is included.

There are 59 documents that constitute the content of Volumes 3A and 3B and 127 documents that constitute Volumes 3C and 3D. A customized copy of each document is provided after an enumerated tab. In each volume, the tabs are preceded by an index of all documents in volume 3 to assist the reader in finding the correct volume (3A, 3B, 3C or 3D) for a specific comment. This document index is followed by a comment-topic legend and Table 1, the Response to Comment Topic Table. Table 1 is comprehensive, covering responses for all of the comments included within Volume 3.

Every comment or question is given a unique three-level code identified by source document, sequential comment number, and comment topic. Every comment is identified in a text box on the left side of the source document. For example, the comment identified as "1-1-AA" is for document one, first comment, and comment topic AA (or cost, water user rates, etc.). Additionally, each comment is identified within the source document by a box drawn around the comment.

Each identified comment is evaluated, categorized by comment topic, and answered. The comment topic categorization allows the comments to be grouped into relevant categories. A legend defining the comment topics is provided. The responses to each comment topic are shown in Table 1. Table 1 provides the topic, a brief summary of the topic, the general response, and the specific section in the EIS where the reader can look for additional information on the topic.

Questions raised and answered during the four public meetings and one public hearing when formal transcripts were prepared are flagged with the unique three level comment code. However, as these questions were answered during the public forum and are available within the transcript, the answers to these questions have not been repeated in Table 1.

# Washington Aqueduct EIS Comment Document Index

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Document Number	Title/Description	Date & Time
1	Oral Statements and Questions from Interested Parties at St. Patrick's Episcopal Church Open House	1/28/04
2	Oral Statements and Questions from Interested Parties at Dalecarlia Water Treatment Facility Open House	9/7/2004
3	Email comment on Follow-up to Washington Aqueduct's September 7 Public Meeting	9/12/2002; 10:50 AM
4	Email comments	9/21/2004; 4:23 PM
5	Email comment on residuals	9/22/2004; 3:48 PM
6	Email comment on Proposed Water Treatment Residuals Management Process	9/25/2004; 1:45 PM
7	Email comment on Proposed Water Treatment Residuals Management Process	9/25/2004; 2:39 PM
8	Public Comment and Question/Answer Session and Technical Presentation on Alternatives Identification and Screening Process public meeting at Sibley Memorial Hospital	9/28/2004
9	Email comments on Dalecarlia 9/28 Meeting	09/29/2004; 4:30 PM
10	Email comments on Residuals project question	9/29/2004; 10:27 PM
11	Email comments on Suggested Alternative	09/30/2004; 10:40 AM
12	Email comment	10/2/2004; 8:55 AM
13	Cold call to Mike Peterson from Lehigh cement	<date of Email notifying contents of call: 10/12/2004; 1:42 PM>
14	Email comments on Washington Aqueduct Residuals Treatment Alternative	11/05/2004; 2:15 PM
15	Email comments on Proposed Water Treatment Residuals Management Process	11/9/2004; 11:37AM
16	Email comments on Proposed Water Treatment Residuals Management Process	7/13/2004; 8:23 PM
17	Comments on Proposed Water Treatment Residuals Management Process	11/10/2004; 12:21 AM
18	Email comments on Proposed Water Treatment Residuals Management Process	11/11/2004; 10:24 AM
19	Email comments regarding sludge treatment plant	11/11/2004; 12:05 AM
20	Email comments on Dalecarlia Sludge Alternative proposals	11/11/2004; 1:08 PM

<b>Document Number</b>	<b>Title/Description</b>	<b>Date &amp; Time</b>
21	Email comments on Proposed Water Treatment Residuals Management Process	11/11/2004; 5:22 PM
22	Proposed Water Treatment Residuals Management Process, Request for Comments	11/12/2004
23	Email comments on Proposed Water Treatment Residuals Management Process	11/14/2004; 9:15 PM
24	Email comments on Proposed Water Treatment Residuals Management Process	11/15/2004; 12:08 AM
25	Email comments on Proposed Water Treatment Residuals Management Process-“Public Submission of Residuals Alternatives” Set of 72	11/15/04; 4:57 PM
26	Email comments on Proposed Water Treatment Residuals Management Process	11/15/2004; 5:25 PM
27	Email comments on Proposed Water Treatment Residuals Management Process	11/15/2004; 6:09 PM
28	Email comments on Proposed Water Treatment Residuals Management Process	11/15/04; 9:18 PM
29	Brookmont Community comments on and alternatives to the proposed Washington Aqueduct Water Treatment Residuals Management Process Facility to be located at the existing Dalecarlia Facility	11/15/2004
30	Public Comment and Question/Answer Session and Technical Presentation on Alternatives Identification and Screening Process public meeting at Sibley Memorial Hospital	11/16/2004
31	Email comments on Barge Option	11/19/2004; 2:08 PM
32	Email comments on EIS Wastewater	1/24/2005; 1:45 PM
33	Concerned Neighbors letter - Washington Aqueduct Residuals Management Project: Comments on Alternatives	2/14/2005; 4:45 PM
34	Sludge Stoppers letter - Washington Aqueduct Residuals and Dewatering Facility Additional 40 Alternatives	2/14/2005
35	ANC Meeting Comments, Questions from the Commissioners	3/2/2005
36	DOPAA Meeting Notes	5/26/2005
37	Concerned Neighbors letter - Washington Aqueduct Residuals Management Project: Comments on Alternatives	11/15/2004
38	Washington Aqueduct Residuals EIS	1/24/2005; 9:23 PM
39	Suggested Alternatives	9/30/2004; 10:40 AM
40	Waste Management Plan	2/10/2004; 3:58 PM
41	Comments on Proposed Water Treatment Residuals Management Process	2/10/2004; 4:24 PM

<b>Document Number</b>	<b>Title/Description</b>	<b>Date &amp; Time</b>
42	Comments on Proposed Water Treatment Residuals Management Process	6/3/2004; 6:54 PM
43	Sediment Disposal Options	5/24/2004; 1:41 PM
44	EIS and Related Activities relating to Proposed Water Treatment Residuals Management Process	6/18/2004; 11:43 AM
45	Comments on Proposed Water Treatment Residuals Management Process	1/11/2004; 2:12 PM
46	Comments on Proposed Water Treatment Residuals Management Process	7/14/2004; 8:06 PM
47	Comments on Proposed Water Treatment Residuals Management Process	7/19/2004; 2:24 PM
48	Comment on Residuals Project	7/28/2004; 4:47 PM
49	Comments on Proposed Water Treatment Residuals Management Process	9/22/2004; 10:19 AM
50	Comments on Proposed Water Treatment Residuals Management Process	9/21/2004; 4:17 PM
51	Comments on Proposed Water Treatment Residuals Management Process	9/25/2004; 1:45 PM
52	Comments on Proposed Water Treatment Residuals Management Process	9/8/2004; 10:10 AM
53	SSN-ANC – Needed Analysis for Next Public Review	9/22/2004; 6:01 PM
54	Comments on Proposed Water Treatment Residuals Management Process	9/25/2004; 2:39 PM
55	Comments on Proposed Water Treatment Residuals Management Process	10/4/2004; 8:39 PM
56	Residuals Project Question	10/9/2004; 11:19 AM
57	Comments on Proposed Water Treatment Residuals Management Process	11/7/2004; 10:30 PM
58	Comments on Proposed Water Treatment Residuals Management Process	11/9/2004; 11:37 AM
59	Concerned Neighbors letter - Fatal Flaws in the Corps' NEPA Analysis of Alternatives to the Current Residuals Disposal Practices at the Washington Aqueduct	3/30/2005
60	Comment regarding residuals trucking plan	Wed 7/6/2005 10:22 AM
61	Email comments on DEIS	Wed 7/6/2005 2:22 PM
62	Email comments on DEIS	Wed 7/6/2005 2:59 PM
63	Email comments on DEIS	Wed 7/6/2005 3:08 PM
64	Objection to Washington Aqueduct Project	Wed 7/6/2005 3:45 PM
65	Email comments on DEIS	Wed 7/6/2005 4:31 PM
66	Dewatering plant	Wed 7/6/2005 6:45 PM

<b>Document Number</b>	<b>Title/Description</b>	<b>Date &amp; Time</b>
67	Dalecarlia water residuals treatment and DEIS	Wed 7/6/2005 9:57 PM
68	Strong opposition to Brookmont Option B	Wed 7/6/2005 10:47 PM
69	Response to the DEIS for the Washington Aqueduct proposal to construct a thickening and dewatering facility - Strong opposition to Brookmont Option B	Wed 7/6/2005 11:18 PM
70	Letter in Opposition Tio The Dalecarlia Sludge Factory	Thu 7/7/2005 12:20 AM
71	Sludge Plan public comment	Fri 7/8/2005 11:58 PM
72	thickening/dewatering facility	Mon 4/25/2005 11:16 AM
73	Dalecarlia water treatment facility	4/26/2005 12:55 PM
74	Washington Aqueduct Draft Environmental Impact Statement	Tue 4/26/2005 4:27 PM
75	Bait and Switch	Wed 4/27/2005 1:01 PM
76	Dalecarlia Water Treatment Facility	Wed 4/27/2005 2:33 PM
77	Request for Extension of Comment Period for Draft DEIS on the Washington Aqueduct Project	Mon 5/2/2005 10:26 PM
78	Testimony	Tue 5/10/2005 8:32 AM
79	Letter from Concerned Neighbors	Tue 5/10/2005 10:55 AM
80	Testimony	Tue 5/10/2005 11:45 AM
81	Washington Aqueduct Draft Environmental Impact Statement & Hearing Request	Wed 5/11/2005 3:06 PM
82	Email question	Wed 5/11/2005 4:36 PM
83	Washington Aqueduct Construction Funding?	Wed 5/11/2005 6:38 PM
84	Washington Aqueduct Construction Funding	Thu 5/12/2005 5:35 PM
85	Delcarlia Waste Plan	Fri 5/13/2005 4:17 PM
86	Email comment	Sat 5/14/2005 10:43 AM
87	Dewatering facility	Thu 5/26/2005 2:32 PM
88	Sludge Facility	Fri 6/3/2005 3:15 PM
89	Opposed to current plan of action	Fri 6/3/2005 3:27 PM
90	Comments on Proposed Water Treatment Residuals Management Process	Fri 6/3/2005 5:48 PM
91	Comments on DEIS	Fri 6/3/2005 9:40 PM
92	Comments on DEIS	Fri 6/3/2005 11:52 PM
93	I Oppose any Vehicular Solution to sludge removal!	Mon 6/6/2005 11:56 PM
94	Comments on Proposed Water Treatment Residuals Management Process	Mon 6/6/2005 4:32 PM
95	Opposition to Brookmont Option	Sun 6/5/2005 10:47 PM

<b>Document Number</b>	<b>Title/Description</b>	<b>Date &amp; Time</b>
96	Comments on Proposed Water Treatment Residuals Management Process	Sun 6/5/2005 10:28 PM
97	Dalecarlia proposed dewatering facility	Fri 7/1/2005 2:15 PM
98	Comments on Proposed Water Treatment Residuals Management Process	Fri 6/10/2005 12:46 AM
99	Comment to DEIS	
100	Trucking	
101	Request for extension of comment period for draft DEIS on the Washington Aqueduct Project	April 29, 2005
102	Request for extension of comment period for draft DEIS on the Washington Aqueduct Project	April 30, 2005
103	Request for extension of comment period for draft DEIS on the Washington Aqueduct Project	April 30, 2005
104	Request for extension of comment period for draft DEIS on the Washington Aqueduct Project	
105	Request for extension of comment period for draft DEIS on the Washington Aqueduct Project	May 2, 2005
106	Request for extension of comment period for draft DEIS on the Washington Aqueduct Project	May 2, 2005
107	Request for extension of comment period for draft DEIS on the Washington Aqueduct Project	May 5, 2005
108	Comment	May 26, 2005
109	Dalecarlia Sludge Disposal	May 30, 2005
110	Comments on DEIS	June 2, 2005
111	Comments on DEIS	June 17, 2005
112	Plans for Water Extraction Facility	June 20, 2005
113	Comments on DESI	June 20, 2005
114	Comments on DEIS	June 21, 2005
115	Comments on DEIS	
116	Comments on DEIS	
117	Comments on DEIS	May 20, 2005
118	United States Senate - Comments on DEIS	June 2, 2005
119	Council of the District of Columbia - Comments on DEIS	May 10, 2005
120	US EPA - Request for Modification of Federal Facility Compliance Agreement	June 28, 2005
121	Council of the District of Columbia - See DOC 111 for responses	
122	US Department of the Interior - Comments to DEIS	May 31, 2005



<b>Document Number</b>	<b>Title/Description</b>	<b>Date &amp; Time</b>
123	Montgomery County Council – Washington Aqueduct Residuals Project - Comments to DEIS	June 23, 2005
124	Commonwealth of Virginia – Water Treatment Residuals Management Process for the Washington Aqueduct - Comments to DEIS	May 26, 2005
125	Maryland National Capital Park and Planning Commission – Montgomery County Planning Board - Comments on DEIS	June 1, 2005
126	Sludge processing plant	Fri 6/10/2005 4:51 PM
127	Maryland State Highway Administration - Washington Aqueduct DEIS comments	Mon 6/13/2005 7:29 AM
128	Washington Aqueduct DEIS comment period	Mon 6/13/2005 10:31 AM
129	opposition to Dalecarlia sludge plant	Tue 6/21/2005 2:02 PM
130	DEIS-I oppose your proposal	Thu 6/30/2005 8:38 PM
131	Attached please find a letter to Mr. Thomas Jacobus	Thu 6/30/2005 5:59 PM
132	Washington Aqueduct	Tue 7/5/2005 6:59 AM
133	Alternative E of their Draft Environmental Impact Statement ('DEIS')	Mon 7/4/2005 11:34 AM
134	Sibley dewatering facility proposal	Mon 7/4/2005 12:02 PM
135	U.S. Army Corps of Engineers Draft Environmental Impact Statement ('DEIS') Alternative E	Mon 7/4/2005 12:20 PM
136	Washington Aqueduct	Mon 7/4/2005 2:10 PM
137	proposed industrial sludge treatment facility near Sibley Hospital	Mon 7/4/2005 5:00 PM
138	Alternative E opposition	Mon 7/4/2005 7:09 PM
139	Dewatering facility	Mon 7/4/2005 9:47 PM
140	industrial facility	Mon 7/4/2005 10:17 AM
141	80-foot industrial dewatering facility proposed behind Sibley Hospital (Alternative E)	Mon 7/4/2005 8:40 AM
142	Comments on DEIS	Mon 7/4/2005 9:11 AM
143	Dewatering Facility Proposal	Mon 7/4/2005 10:01 AM
144	Comments on DEIS	Mon 7/4/2005 7:55 AM
145	Comments on Proposed Water Treatment Residuals Management Process	Fri 7/1/2005 7:07 PM
146	Comments on DEIS	Fri 7/1/2005 6:00 PM
147	Washington Aqueduct	Mon 7/4/2005 12:29 AM
148	Washington Aqueduct	Sun 7/3/2005 11:32 PM
149	Deadline for comment period on DEIS for proposed dewatering plant	Sun 7/3/2005 4:08 PM

Document Number	Title/Description	Date & Time
150	Dewatering facility	Tue 7/5/2005 9:09 AM
151	Construction of Industrial Dewatering Facility Near Sibley Hospital	Tue 7/5/2005 10:05 AM
152	residue facility	Tue 7/5/2005 11:08 AM
153	Need for another alternative to siting of proposed 8 story tall toxic waste dump site next to Sibley Hospital under current Corps proposal E	Tuesday, July 05, 2005 11:36 AM
154	Water Extraction Facility at the Dalecarlia Filtration Plant	Tue 7/5/2005 11:47 AM
155	OPPOSITION TO Alternative E re the new industrial dewatering facility near Sibley Hospital	Tue 7/5/2005 11:44 AM
156	Sibley Memorial Hospital Comments on DEIS	June 27, 2005
157	Government of the District of Columbia Department of Health - Draft Environmental Impact Statement for Proposed Residuals Management Process	July 5, 2005
158	Washington Aqueduct	Tue 7/5/2005 12:35 PM
159	Opposition to DEISN	Tue 7/5/2005 1:36 PM
160	Washington Aqueduct: Draft EIS for dewatering facility	Tue 7/5/2005 2:44 PM
161	industrial plant in my backyard	Tue 7/5/2005 3:11 PM
162	Washington Aqueduct DEIS Response	Tue 7/5/2005 4:22 PM
163	Comments to DEIS	Tue 7/5/2005 4:59 PM
164	Dewatering Facility	Tue 7/5/2005 5:03 PM
165	Washington Aqueduct -	Tue 7/5/2005 5:45 PM
166	Washington Aqueduct: Draft EIS for De-Watering facility	Tue 7/5/2005 10:16 PM
167	Washington Aqueduct-environmental hazard	Wed 7/6/2005 7:10 AM
168	Transcripts (Private)	
169	Transcripts (Public)	
170	Letter from Concerned Neighbors - Fatal Flaws in the Corps' Draft Environmental Impact Statement ("DEIS") and Reasons Why the NEPA Process Must be Restarted	July 5, 2005
171	Public Comments on Draft Environmental Impact Statement (DEIS)	July 6, 2005
172	Comments on DEIS	July 5, 2005
173	Comments on DEIS	July 4, 2005
174	Comments on DEIS	July 1, 2005
175	Comments on DEIS	July 5, 2005
176	Comments on DEIS	July 4, 2005
177	Comments on DEIS	June 30, 2005
178	Comments on DEIS	June 30, 2005

<b>Document Number</b>	<b>Title/Description</b>	<b>Date &amp; Time</b>
179	Comments on DEIS	July 5, 2005
180	Comments on DEIS	July 5, 2005
181	Industrial Dewatering Plant	Mon 7/5/05 5:59 PM
182	US EPA - Draft Environmental Impact Statement for the Washington Aqueduct Residuals Project CEQ #20050154	June 27, 2005
183	Comments on DEIS	May 17, 2005
184	Testimony	May 17, 2005
185	Statement Regarding the Draft Environmental Impact Statement for a Proposed Water Treatment Residuals Management Process for the Washington Aqueduct	May 17, 2005
186	Sludge Stoppers – Alternatives regarding the proposed Army Corps of Engineers Washington Aqueduct “residuals and dewatering facility” aka Sludge Factory	November 15, 2004

**Agency Reviewers:**

	<b>Document #</b>
Council of the District of Columbia	119
United States Environmental Protection Agency	120, 182
United States Department of the Interior	122
The Maryland – National Capital Park and planning Commission	125
Government of the District of Columbia	157
Commonwealth of Virginia – Department of Historic Resources	124

**City and County Agencies, and Elected Officials:**

	<b>Document #</b>
United States Senate	118
Montgomery County Council	123

**LEGEND**

Comment topics received through public and agency correspondence

<b>Topic</b>		<b>Sub-Topic</b>	
A	Cost	AA	Cost, water user rates, etc.
		AB	Cost, supporting data
		AC	Opportunity cost of land
		AD	Washington Aqueduct Funding
B	Facility (residuals processing)	BA	Facility appearance
		BB	Facility location
		BC	Facility noise
		BD	Facility simulation
		BE	Facility access
		BF	Facility light
		BG	Facility smell
		BH	Facility impact on habitats
		BI	Facility impact on Sibley Hospital
		BJ	Facility impact on dirt/dust
		BK	Facility impact on health
		BL	Facility will impact property values
		BM	Disturbing site B soil
C	Monofill	CA	Monofill, preference
		CB	Monofill, chemical exposure
		CC	Monofill, height
		CD	Monofill, trees
D	Pipeline	DA	Pipeline, preference to Blue Plains
		DB	Pipe in a pipe
		DC	Active management of residual discharge
		DD	WSSC Potomac WFP
		DE	Carderock
		DF	FCWA Corbalis WTP
		DG	Potomac River
		DH	George Washington Parkway

**LEGEND**

Comment topics received through public and agency correspondence

Topic		Sub-Topic	
		DI	Pipeline size
		DJ	Regionalization
		DK	Rockville WTP
		DL	New processing site near the Beltway
		DM	COE hasn't adequately investigated other piping alternatives
E	Residuals	EA	Residuals disposal method
		EB	Residuals processing method and impacts
		EC	Residuals Quantities
F	Schedule	FA	Construction schedule
		FB	EIS schedule
		FC	Compliance performance
		FD	Temporary alternatives
		FE	Public comment period
		FF	DEIS review period time extension
		FG	EPA grants interim FFCA schedule milestone
G	Trucking	GA	Trucking, neighborhood impact
		GB	Trucking alternative
		GC	Trucking, noise
		GD	Trucking, routes
		GE	Trucking, frequency
		GF	Trucking, air pollution
		GG	Trucking, safety
		GH	Trucking, vibration
		GI	Trucking costs
		GJ	Existing Dalecarlia Parkway vehicle/truck volumes
		GK	Trucking hours
H	Barge	HA	Barge, preference
I	Comment	IA	Preference
		IB	Useful Life of Alternatives

**LEGEND**

Comment topics received through public and agency correspondence

<b>Topic</b>		<b>Sub-Topic</b>	
J	Residuals Discharge Resolutions	JA	River discharge
		JB	Discharge during spawning season
K	Human Health and Environment	KA	Impure water quality, raw water intake
		KB	Monitoring water quality and safety
		KC	Residuals quality
		KD	Health Impacts of Diesel Truck Traffic
L	Alternate Water Treatment Process	LA	Suggested Processes
M	Government	MA	EPA mandate
		MB	FOIA requests
		MC	Conflict of Interest
		MD	Agency Recommendations on DEIS
N	EIS Process	NA	Understanding
		NB	Screening criteria and meeting
		NC	Communication
		ND	NEPA Process
		NE	Limited number of alternatives evaluated in DEIS
		NF	Institutional constraints screening criteria
		NG	Restart NEPA process
		NH	Regional approach to NEPA
O	Alternate Coagulants	OA	Continued River Discharge
P	Residuals Handling in Other Metropolitan Areas	PA	Disposal
		PB	Residuals studies throughout the world
Q	Residuals Alternatives	QA	Public Residuals Alternatives
		QB	Environmental assessment
		QC	Northwest (alternate B) versus east (alternate E) residuals processing sites
		QD	Residuals processing site near Beltway versus Dalecarlia WTP site

A number of comments were received from the public and the various agencies involved with the project prior to and following the issuance of the DEIS. Many of the comments are focused on similar EIS topics. This table documents the topics addressed in the comments, summarized the general response for each topic, and refers the reader to the EIS section where more information is provided on the topic/subtopic.

**TABLE 1**  
Comments and Responses by Topic

<b>Topic / Sub-topic</b>	<b>Summary</b>	<b>Response</b>	<b>See EIS section</b>
AA	Costs, water user rates, etc.	<p>Costs of alternatives are estimated and compared. Screening criteria for cost: a feasible alternative must be no more than 30 percent of the baseline budget of \$50 million, to avoid undue impact on user rates. Actual rate impacts are not estimated. The wholesale customers are responsible for estimating water rate impacts and adjusting water rates accordingly. Questions related to the effect of operations and capital improvements on retail rates should be directed to the appropriate wholesale customer. The effect of Washington Aqueduct project costs on the financial plans developed by individual wholesale customer varies from one customer to another. As a result, Washington Aqueduct is not able to describe the direct effect of our proposed project costs on retail rates. It is impossible to say at what cost users' rates will be "unduly" or "unreasonably" impacted, but it is likely that this project will have an impact on retail water rates. The 30% threshold is a number that the project engineers discussed at length early in the planning stage and consider to be a reasonable limit to use as screening. Note that there are no alternatives that are screened out based on cost alone.</p> <p>The residuals project will be paid for by the wholesale customers.</p> <p>See topic AD for a discussion of Washington Aqueduct project funding.</p>	<p>EIS Volume 1 - Section 2.3 Alternatives screening Process and Criteria</p> <p>EIS Volume 1 - Section 4.14 Cost</p>
AB	Cost, supporting data	<p>Capital and O&amp;M costs and associated supporting data are provided in the Feasibility Study. Monofill operating costs were obtained from a neighboring wastewater treatment utility that operates a similar monofill facility.</p> <p>A question was raised concerning the difference between the pipeline construction costs included in Alternatives 5 versus Alternative 8, as summarized in the May 2004 Engineering Feasibility Study document. The pipeline cost included for Alternative 8 includes a \$10,000,000.00 allowance for land purchase that is not included in the Alternative 5 cost. The cost for the Alternative 5 pipeline was modified in Volume 4 of the EIS to reflect a change in construction technique (to directional drilling).</p>	<p>EIS Volume 4 - Engineering Feasibility Study Compendium</p> <p>EIS Volume 4 –Engineering Feasibility Study Compendium Sections 3.1.2 and Section 5.7.</p>

**TABLE 1**  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>This change significantly increased the cost of the Alternative 5 pipeline.</p> <p>Several public comments were received on the costs summarized in Table 5-2 of the EIS Volume 4 - Engineering Feasibility Study Compendium. The same trucking costs were used for Alternatives B, C, and E. The unit trucking cost is based on an assumed haul distance. It is assumed that the permitted residuals disposal site would be the same distance from the Blue Plains AWWTP or the Dalecarlia WTP. Costs of hauling residuals to the monofill are included in the category name - Other Monofill Specific Costs. Road deterioration costs are not included in the trucking alternatives because the Department of Transportation provides funds for the maintenance of public roads.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium, Table 5-2</p>
AC	Opportunity cost of land	<p>The land surrounding the Dalecarlia Reservoir is owned by the Federal Government. The Federal Government does not intend to sell this land because it provides valuable buffer and security functions to the Washington Aqueduct. There is no Washington Aqueduct property considered to be excess and even if there were, proceeds from the sale of the property would belong to the U.S. Treasury, not the Washington Aqueduct.</p>	<p>The sale price of the land surrounding the Dalecarlia Reservoir was not evaluated in the EIS because this action is not planned by the Washington Aqueduct.</p>
AD	Washington Aqueduct Funding	<p>Although owned and operated by the Army Corps of Engineers, Washington Aqueduct functions as a public water utility and is not part of the Corps' civil works program to be included in the Civil Works budget request.</p> <p>All funds for Washington Aqueduct operations and capital improvements, whether self-initiated or in response to regulation and permitting actions, come from the wholesale customers (i.e., District of Columbia Water and Sewer Authority, Arlington County, and the City of Falls Church). Each year, the Washington Aqueduct Wholesale Customer Board, which is comprised of the General Manager of the DC Water and Sewer Authority, the County Manager of Arlington County, and the City Manager of the City of Falls Church, meets to discuss and approve the upcoming fiscal year operating and capital improvement budgets for Washington Aqueduct. At that time, future projects are described in a multiyear capital plan. This gives the customers an idea of how they will need to plan for funding Washington Aqueduct. Each customer may have a different approach.</p> <p>Customer funding of Washington Aqueduct operations and capital improvements is tied to the proportional use of the water produced. Those shares are approximately 75 percent for the District of Columbia Water</p>	



**TABLE 1**  
Comments and Responses by Topic

<b>Topic / Sub-topic</b>	<b>Summary</b>	<b>Response</b>	<b>See EIS section</b>
		<p>and Sewer Authority, 15 percent for Arlington County, and 10 percent for Falls Church. The costs associated with Washington Aqueduct operations are completely reimbursable. Washington Aqueduct has no retained earnings.</p> <p>A section of the 1996 Safe Drinking Water Act Amendments provided Washington Aqueduct with \$75 million of borrowing authority over fiscal years 1997, 1998 and 1999. The purpose of this authority was to allow the execution of an aggressive capital improvement program while the Army and the Washington Aqueduct customers considered alternative ownership and operations of Washington Aqueduct. This borrowing was added to the existing debt service that the customers pay as part of their cost of water service. This borrowing authority expired in fiscal year 1999 and was not renewed. All capital investments made by the customers in Washington Aqueduct infrastructure since then have been on a pay-as-you-go basis, in cash from their accounts.</p> <p>Although Washington Aqueduct annual operations and capital improvements are not funded through any Congressional appropriation, it is technically possible for Washington Aqueduct to receive a specific authorization and appropriation. The loans discussed earlier, are being repaid with interest, and those amounts are reflected in the water bills of the retail customers. Based on all discussions with officials throughout the development of the NPDES permit and the analysis of the nature of the project that would be required to comply with it, there has been no expression by any Congressional committee that an outright appropriation or authority for a new loan is under consideration. The timing of Washington Aqueduct's permit compliance under the Federal Facilities Compliance Agreement requires that the NEPA action be completed in accordance with the schedule in the FFCA and that the customers provide sufficient funds.</p>	

**TABLE 1**  
Comments and Responses by Topic

<b>Topic / Sub-topic</b>	<b>Summary</b>	<b>Response</b>	<b>See EIS section</b>
BA	Facility appearance	<p>The visual impact of residuals facilities is evaluated in Section 4 of the EIS. Visual simulations have been developed to show the anticipated look of the proposed buildings and structures. These views will be refined during the design phase of the project.</p> <p>The photos of the existing site included in the EIS were taken during both summer and winter seasons to show the variation in natural screening provided by the existing trees.</p> <p>The feasibility of building the settling tanks and truck entrance/exit below grade is influenced by cost impacts and available site topography and space. Reduced facility heights will be considered for applicable alternatives.</p> <p>Berms and other architectural landscape devices are possible measures to mitigate or minimize visual impacts. These features will be incorporated into the selected alternative.</p> <p>The proposed thickening and dewatering building has three floor levels plus a basement thickened residuals pump area located on each side of the building. The description of the building has been changed from three-story building to three-floor building to address any potential confusion related to the height of the building. The floor to floor spacing used on the proposed building is greater than those typically used for a commercial office building to allow sufficient vertical space for residuals processing and storage equipment and vehicles. The floor to floor spacing and overall building height are shown on the building drawings included in Volume 4 of the EIS.</p> <p>The project will be submitted to the National Capital Planning Commission (NCPCC) and the Commission of Fine Arts (CFA) for full project review and approval. These agencies have authority for architectural review of Federal Projects in the Capital region.</p> <p>The architectural look of the proposed residuals processing facilities will continue to be developed as the project proceeds. The proposed facilities will be designed to provide a pleasant appearance in keeping with NCPCC regulations. The architecture and siting of the building will take the natural and built surroundings into consideration.</p>	<p>EIS Volume 1 - Section 4.12 Visual Aesthetics</p> <p>EIS Volume 1 - Figures 4-2 to 4-11</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium, Section 4.4</p>

**TABLE 1**  
Comments and Responses by Topic

<b>Topic / Sub-topic</b>	<b>Summary</b>	<b>Response</b>	<b>See EIS section</b>
BB	Facility location	<p>Washington Aqueduct would contract haul and dispose of residuals for alternatives B, C and E. Multiple disposal sites are required to ensure disposal reliability. Disposal site selection will be the responsibility of the residuals disposal contractor.</p> <p>An evaluation of residuals land application sites based solely on existing permits and capacity of specific locations is unable to accommodate a variety of land disposal practices that may take place in a dynamic market place over the 20-year design life of the project. The EIS uses a programmatic approach to evaluate the ability of the residuals disposal marketplace to meet increasing demand within an approved regulatory environment.</p> <p>Multiple residuals processing sites have been evaluated in the Engineering Feasibility Study Compendium, including numerous sites located distant from the Dalecarlia WTP site. One such alternative involves constructing new residuals processing facilities at the Carderock facility near the beltway. Several alternatives involving Carderock were suggested by the public. These alternatives were evaluated in Volume 4 of the EIS – Engineering Feasibility Study Compendium, Section 3.2.2. These alternatives screened out because the Navy had determined that the construction of Washington Aqueduct residuals facilities is inconsistent with their long-term plan for the Carderock facility. See topic DE for further discussion of the “Carderock” and other offsite residuals processing alternatives.</p> <p>Relocation of the entire existing Dalecarlia WTP and Georgetown Reservoir complex to another site would be a massive undertaking. Such a project could not be completed within the FFCA schedule and would be cost prohibitive. It is anticipated that such a project would cost at least \$640,000,000.00, exclusive of land purchase and raw water conveyance cost impacts.</p> <p>The northwest Dalecarlia processing site was previously reviewed and approved by NCPC as part of a Master Plan update completed in 1980. The specific location of the proposed residuals thickening and dewatering facilities shown in Figure 4-22 of the Engineering Feasibility Study Compendium can be adjusted within the confines of the site area shown on this figure. Additional sites on the Dalecarlia WTP property are also evaluated in the EIS (such as the east site evaluated for Alternative E).</p>	<p>EIS Volume 1 - 4.16 Land Application of Water Treatment Residuals</p> <p>EIS Volume 4 - Engineering Feasibility Study Compendium Section 3 Screening of Alternatives</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium, Figure 4-22.</p> <p>EIS Volume 1, Section 6</p>

**TABLE 1**  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>Reference Section 6, Volume 1 of the EIS for a discussion of the reasons for recommending the East Dalecarlia Processing site.</p> <p>One of the public comments indicates that existing pine trees located along the west property line of the Northwest Processing Site, as shown on Figure 4-22 of the Engineering Feasibility Study Compendium, will be cut down if the proposed residuals facilities are constructed. This is not true of the case with Alternative B. In fact; it is likely that additional trees would be planted to provide a visual screen with this alternative.</p>	
BC	Facility noise	<p>The noise analysis summarized in the EIS is a conservative worst case approach to determining noise impacts based upon regulations. Sound attenuation attributable to distance from residential receptors is considered in this analysis. Construction measures, such as installation of berms, will be used as needed to mitigate noise impacts to “sensitive” receptors during construction and operation of the residuals facilities.</p> <p>The proposed residuals processing facility will not generate noise or vibrations that could travel through the ground or the groundwater.</p> <p>The various environmental impacts of the proposed residuals processing facility are summarized in the EIS.</p>	<p>EIS Volume 1, Section 4.3.3.2 Alternative B – Dewatering at Northwest Dalecarlia Processing Site and Disposal by Trucking</p> <p>EIS Volume 1, Section 4.3.3.5 Alternative E – Dewatering at East Dalecarlia Processing Site and Disposal by Trucking</p> <p>EIS Volume1, Section 4.</p>
BD	Facility simulation	<p>Visual simulations have been prepared for individual residuals facilities in lieu of an area-wide digital model.</p>	EIS Volume 1 – Section 4
BE	Facility access	<p>See transcript discussions labeled “BE” for responses.</p>	EIS Volume 4 – Engineering Feasibility Study Compendium
BF	Facility light	<p>Lighting surrounding or on the proposed thickening and dewatering facility will be designed to minimize impacts on area neighbors by directing light towards the ground. The lighting surrounding the residuals facilities will be designed to provide a safe environment for the public, vehicular traffic, and maintenance and emergency workers required to visit the facility during non daylight hours and serve as a deterrent to vandalism. The proposed lighting design will be reviewed by NCPC as part of their overall design review process.</p> <p>Lighting during construction will be restricted to levels required for safety and security. Light fixtures will be hooded and directed toward the work areas to minimize offsite impacts.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium</p> <p>EIS Volume 1- Section 4.12 Visual Aesthetics</p>

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		Also, see transcript discussions labeled "BF" for responses.	
BG	Facility smell	<p>The air pollution issues associated with each alternative are evaluated in the EIS. In general, the alternatives being considered are not anticipated to have a significant impact on area air pollutant levels.</p> <p>The water treatment residuals that would be processed at the proposed facility produce very little or no odor because they contain very low levels of biodegradable organic compounds. The majority of the residuals consist of river silt and alum residuals, both of which are biologically inert.</p> <p>The project team and a group of interested citizens, visited one or more similar facilities, the closest being WSSC's Potomac Water Filtration Plant. Observation confirms that there is no objectionable smell associated with this type of facility.</p>	EIS Volume 1 - Section 4.4 Air Quality
BH	Facility impact on habitats	Construction of the proposed residuals thickening and dewatering facilities on the East Dalecarlia Processing Site (Alternative E) and disposal by trucking would not adversely impact the river-based environmental indicators such as water quality, sediment quality, aquatic resources including the benthic community, fisheries, essential fish habitat, and submerged aquatic vegetation. The wildlife and bird habitats on site E are not expected to be negatively impacted as the area is already cleared and does not contain any habitat for wildlife or bird nesting.	<p>EIS Volume 1- Sections 4.5 Aquatic Resources and Section 4.6 Biological Resources (Terrestrial)</p> <p>EIS Volume 2-Appendix 2B: Biological Resources</p>
BI	Facility impact on Sibley Hospital	<p>Earlier this year, Sibley Hospital completed construction of a major infrastructure improvement (a new parking garage). This construction project did not have an adverse effect on Sibley Hospital daily operations. The construction of the proposed Washington Aqueduct residuals facilities is also not anticipated to have a negative impact on ongoing operations at Sibley Hospital or upcoming Sibley Hospital construction projects. The two construction projects will take place on adjacent, but unique sites. Site access and deliveries to the residuals construction site will be coordinated with Sibley Hospital to ensure that the hospital operations are not impacted.</p> <p>The project has been coordinated with Sibley Hospital. By letter dated June 27, 2005, the hospital administration indicated a desire to coordinate future hospital and Washington Aqueduct residuals project activities and</p>	

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		offered suggestions related to the proposed residuals processing site.	
BJ	Facility, Dirt/Dust	<p>The dust/dirt generated by construction and operation of the proposed residuals thickening and dewatering facilities on the East Dalecarlia Processing Site (Alternative E), the associated new residuals removal equipment at the Dalecarlia sedimentation basins, and operation of two new residuals dredges in the Georgetown Reservoir is less than the <i>de minimus</i> threshold levels for particulate matter (PM 10 ).</p> <p>The alum water treatment residuals for this facility are very moist and generally dewatered to 30% solids (70% water). This moist composition of the residuals physically minimizes the generation of dust and dirt.</p> <p>The nature of alum residuals is that they retain moisture and therefore are not expected to dry out on the haul route.</p> <p>The means of processing residuals would be through thickeners and centrifuges. These types of equipment operate in a wet/moist environment.</p> <p>In addition to the physical properties of the water treatment residuals, the amount of dust/dirt that becomes airborne during construction and operation of the facility will be further minimized by employing all appropriate dust control measures.</p> <p>During construction of the facility dust and dirt will be controlled by maintaining moist conditions using standard construction methods, such as wetting down the construction area periodically throughout the workday.</p>	<p>EIS Volume 1- Section 4.3 Air Quality</p> <p>EIS Volume 2A- Air Quality</p> <p>EIS Volume 4</p>
BK	Facility impact on health	There are no specific health effects associated with the proposed residuals processing facility. See EIS Volume 1, Section 4 for an evaluation of the impacts of the proposed facilities on the environment and surrounding neighborhood.	EIS Volume 1, Section 4
BL	Facility will impact property values	The water treatment operation currently performed at the Dalecarlia WTP and Georgetown Reservoir sites will not significantly change as a result of adding residuals processing facilities. All of the property required for the proposed residuals project is currently owned by Washington Aqueduct and currently used in the production of drinking water. The proposed residuals processing operation is not anticipated to negatively impact	

**TABLE 1**  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>neighborhood property values because the construction and operation of the proposed residuals facilities will have no significant environmental impact on the neighborhood.</p> <p>Similar previous neighborhood concerns related to the potentially negative impact of the AUES FUDS environmental remediation activities on neighborhood property values were analyzed as part of the Spring Valley project. This analysis examined the potential impact of the AUES FUDS remediation work on property values, average number of days that homes remain on the market and the difference between list price and sale price during the period between 1995 and 2001. This study concluded that housing values rose steadily between 1995 and 2001 while the average days on the market dropped considerably indicating that the neighborhood remained a very desirable location throughout this period. Given that the environmental impact of the proposed residuals processing and disposal project will be considerably less than the ongoing AUES FUDS project, no impact on neighborhood property values is anticipated to be associated with the residuals project. The full text of the report can be found in the Administrative Record.</p>	Administrative Record
BM	Disturbing site B soil	The proposed action is to construct dewatering and thickening facilities at site E. As a result, no modifications are planned to site B (Brookmont site) where soil borings were conducted and an oily smell was observed in the existing fill material. The Washington Aqueduct reported the observed odor to Maryland Department of the Environment (MDE) and will work with MDE on any follow-up required.	EIS Volume 1 – Sections 3.7 and 4.8
CA	Monofill, preference	<p>Alternative A (Monofill) was initially found to be technically feasible, based upon the screening criteria. However, when the alternative was thoroughly evaluated in the EIS and then balanced against the purpose and need for the project, it presented impacts that precluded its selection as the preferred alternative.</p> <p>The Corps of Engineers plans to investigate the monofill site for the potential presence of buried munitions in 2008.</p> <p>The public suggested several alternate transport systems, such as a small rail system or a conveyor in a tunnel, to move dewatered residuals from the Dalecarlia WTP to the monofill. These options were considered but none were determined to be relevant once it was determined that the monofill could no longer be potentially recommended as the preferred</p>	<p>EIS Volume 1 - Section 6.2.1 Detailed Reasons for Not Selecting Alternative A: Dewatering and Disposal by Monofill</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium - Section 3.1.2</p>

**TABLE 1**  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>alternative.</p> <p>Environmental impacts associated with the Alternative A (monofill) are described in the EIS.</p> <p>Current District of Columbia monofill regulations do not prohibit the government from constructing a residuals monofill on their property. This was confirmed in a meeting with the Office of the Attorney General of the District of Columbia held on September 24, 2004.</p> <p>The anticipated life span of the monofill alternative is not as long as some of the other alternatives considered in the EIS. However, it would not be considered a temporary alternative given its 20-year life – a typical life for such a project.</p> <p>The monofill would be located on the east side of the Dalecarlia Reservoir in an area designated the Dalecarlia Woods.</p> <p>The monofill cannot be buried deeper in the ground because it must be constructed above the groundwater table to prevent the liner system, designed to separate the residuals from the groundwater, from floating.</p> <p>The costs for the monofill alternative are included in the Volume 4 of the EIS.</p>	<p>EIS Volume 1, Section 4</p> <p>EIS Administrative Record</p> <p>EIS Volume 1, Figure 2-1</p> <p>EIS Volume 1, Section 4.9.3</p> <p>EIS Volume 4- Engineering Feasibility Study Compendium, Section 5-7.</p>
CB	Monofill Chemical Exposure	<p>The monofill site would be fenced off to prevent access by the public. Although the residuals are not toxic, an impermeable liner would be installed on the bottom of the monofill to prevent the residuals from coming into contact with the groundwater. Once completed, the monofill would be capped (or sealed). Reference topic CA for a discussion of why this alternative can no longer be recommended as the preferred alternative.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3.1.2 Alternative 2</p>
CC	Monofill height	<p>The height and footprint of the monofill is defined in the Engineering Feasibility Study Compendium. Reference topic CA for a discussion of why this alternative can no longer be recommended as the preferred alternative.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium Section 3.1.2, Alternative 2. Additional information concerning the size of the monofill is provided in Figure 4-5b of the EIS.</p>



TABLE 1  
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Topic / Sub-topic	Summary	Response	See EIS section
CD	Monofill Trees	<p>The impacts associated with removing trees from the proposed monofill site are described in Section 4 of the EIS. Compliance with the Urban Forest Preservation Act of 2002 is acknowledged as one of the issues that would need to be addressed if this alternative were selected for implementation. Reference topic CA for a discussion of why this alternative can no longer be recommended as the preferred alternative.</p>	EIS Volume 1, Section 4.
DA	Pipeline preference to Blue Plains	<p>Alternative C (Pipeline to Blue Plains) was found feasible, based on screening criteria. However, when the alternative was thoroughly evaluated in the EIS and then balanced against the purpose and need for the project, it presents impacts that preclude selection as the preferred alternative. Some of the impacts could be mitigated to lesser levels, but the work is not possible within the schedule required by the Federal Facility Compliance Agreement (FFCA) issued by the U.S. EPA and it is more than double the cost of each of the other alternatives. In addition, DCWASA is not able to allocate space for residuals processing facilities at Blue Plains because the limited amount of available space is reserved for the District of Columbia Water and Sewer Authority's long-term plans for its Blue Plains AWWTP to meet future nutrient loading and CSO demands.</p> <p>The cost to construct the pipeline to Blue Plains alone is anticipated to be \$142,600,000 in 2004 dollars (or \$165,100,000 in July 2008 dollars).</p> <p>Alternate routings for residuals pipelines to Blue Plains, such as Metro Rights of Way or abandoned sewer lines were considered but none were determined to be relevant because WASA cannot accept the Washington Aqueduct residuals to be processed on the Blue Plains site.</p> <p><b>Potomac Interceptor Shut-off Valve:</b></p> <p>As discussed in Section 3.1.2 of the Engineering Feasibility Study Compendium, Alternative 4, Washington Aqueduct residuals combined with sewage in the Potomac Interceptor sewer and piped directly to Blue Plains cannot be processed at Blue Plains AWWTP because of the adverse impact on the existing treatment process at Blue Plains. The writer of one comment proposed a novel approach for the use of the Potomac Interceptor. According to this approach, valves would be installed in the Potomac Interceptor at strategic locations to allow the sewage flow to be trapped and stored for a long enough period of time to allow the water treatment residuals to be flushed into the interceptor so</p>	<p>EIS Volume 1 - Section 6.2.2 Detailed Reasons for Not Selecting Alternative C: Thickening and Piping to Blue Plains AWWTP</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium Section 3.2.1.</p> <p>EIS Volume 1 – Table 4-6.</p> <p>EIS Volume 1 – Section 3.1.2.</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3.1.2</p>

**TABLE 1**  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>that they could flow towards Blue Plains. In principle, it would be possible to send the residuals to Blue Plains daily as a relatively intact "slug" if enough valves and instrumentation were provided. The residuals slug could then be captured at Blue Plains for processing, or for pumping further downstream to another processing location.</p> <p>This approach is somewhat analogous to the concept that is planned for the control of sanitary sewer overflows (SSOs) and combined sewer overflows (CSOs) in many areas of the country, including the District of Columbia. In the case of SSOs and CSOs, sewage flows that exceed the capacity of a collection system would be captured and stored in tunnels to prevent them from overflowing into adjacent rivers and streams. The volume of storage required and the logistics of finding locations for and building the storage tunnels have shown this approach to be very expensive.</p> <p>For the management of water treatment residual flows, this approach would require that storage be constructed at the Dalecarlia site for at least the maximum daily flow of water treatment residuals (8,000,000 gallons if unthickened and 2,000,000 gallons if thickened). A large pump station would also be required to meter the entire day's flow of residuals into the Potomac Interceptor during a short period of time. In addition, valves, diversion chambers, and storage facilities would be needed at virtually every confluence point and pump station in the system for the management of sewage flows to keep them separate from the residuals flows. The cost of this effort was not calculated, but can be assumed to be tremendous since the cost for conveyance facilities is generally greater than that for associated treatment facilities.</p> <p>Dry weather low flow in the Potomac Interceptor near the Washington Aqueduct site is approximately 32 mgd (222,222 gpm), and typically occurs between the hours of 6:00 and 9:00 AM. A minimum of 1.3 million gallons (MG) of storage would be required to hold this flow for one hour. More storage volume would be required during wet weather periods. It would not be feasible to store flow in the pipeline because it would fill the pipeline at the rate of about 60 feet per minute at this flow rate. Without storage, overflows would occur at manholes and overflow points upstream of the point where the shutoff valve is located.</p> <p>While this approach seems like a solution, it would simply be too difficult to implement in a practical manner due to the large volume of sewage and</p>	

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>residuals flows that would have to be addressed and the logistics, difficulties, and costs of making major system changes in an urban area. Since it would add many diversion chambers and storage facilities and would not eliminate any residuals processing facilities, this approach would certainly cost more than the Alternative 25.</p>	
DB	Pipe in a pipe	<p>The installation of two dedicated water treatment residuals pipes within the existing Potomac Interceptor pipe/conduit would be complex, dangerous, time consuming, and costly. Two redundant residuals pipelines would be required to avoid discharging residuals into the Potomac Interceptor in the event of a pipe break. Such a discharge could overload the Blue Plains plant and prevent further discharge of residuals from the Dalecarlia residuals thickening facilities until repairs were made to the residuals pipeline installed within the Potomac Interceptor.</p> <p>Based on the long length of pipeline required, the frequency of rainfall events, and the physical configuration of the Potomac Interceptor, it is anticipated that new water treatment residuals pipelines would need to be installed by workers dressed in Class D waterproof hazardous environment suits equipped with portable air supplies. Since the Potomac Interceptor is a stand alone sewer without a parallel back-up sewer over much of its length, it is anticipated that the new residuals pipelines would need to be installed within the Potomac Interceptor while it is partially filled with sewage. Pipeline installation contractor staff would likely work from portable platforms that float on the sewage flow while they install pipe hangers in the crown of the interceptor. Work would need to be interrupted whenever rainfall increases sewage liquid levels above safe depths within the interceptor. The hazardous and intermittent nature of this work would make it very expensive to complete. In addition to the cost escalation factors associated with the hazardous and intermittent nature of such a project, conversations with DCWASA indicate that they would require stainless steel pipe to be installed along the entire length of the Potomac Interceptor to minimize future maintenance issues associated with the corrosive atmosphere inside the interceptor. This pipe material is significantly more costly (2 to 3 times) than the pipe materials assumed for other piping alternatives.</p> <p>Even if the new residuals pipelines could be cost effectively installed within the Potomac Interceptor, the transfer of residuals to the Blue Plains site still could not be recommended as the preferred alternative because</p>	EIS Volume 4 - Engineering Feasibility Study Compendium, Section 3.2.1

**TABLE 1**  
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Topic / Sub-topic	Summary	Response	See EIS section
		WASA has indicated that they need to reserve the available site space for future wastewater or CSO treatment facilities. As a result, no room exists to construct the residuals dewatering facilities required to process the Washington Aqueduct residuals.	
DC	Active management of residuals discharge	Discharging residuals to the Potomac Interceptor during dry weather conditions would require approximately 25 additional 105-foot diameter gravity thickeners to be constructed at the Dalecarlia WTP (above and beyond the 4 gravity thickeners anticipated for the current project). These thickeners would provide up to 30-days of residuals storage for rainy periods. The additional gravity thickener complex would occupy approximately 10 additional acres of area on the plant site. The additional thickeners would have a significant visual impact of the neighbors surrounding the plant site and increase the construction cost of the Blue Plains alternative significantly. Even if the additional gravity thickeners and associated thickened residuals pumping facilities could be constructed cost effectively (which is very unlikely), the dry-weather discharge of residuals to Blue Plains would still overload the existing Blue Plains treatment capacity. The total pounds of residuals delivered to Blue Plains would still be the same as suggested in Alternative 5. Based on these concerns, this option cannot be recommended as the preferred alternative.	EIS Volume 4 – Engineering Feasibility Study Supplement, Section 3.1.2, Alternative 5
DD	WSSC Potomac WTP	Alternative 7 was screened out based on economic and institutional concerns. The cost of the alternative did not comply with the cost screening criteria and WSSC is not willing to process residuals from the Washington Aqueduct at their facility.	EIS Volume 1, Section 3.1.2, Alternative 7 and Table 3-9.  EIS Volume 2 – Appendices, Public Involvement and Agency Coordination Section.
DE	Carderock	<p>The Navy was contacted to determine if they would be willing to allow the Washington Aqueduct to construct residuals processing facilities on the Carderock site. They responded that this action would be inconsistent with their mission and future plans for the Carderock site and could not be considered.</p> <p>The many piping alternatives are dependent upon the ability and willingness of the receiving facility at the other end of the pipe, whether to process and dispose of the residuals, or to supply space for the Washington Aqueduct to do so. None of the organizations involved, whether it be the DC WASA, WSSC, Fairfax Water, the Central Intelligence Agency (CIA), the United States Navy, the City of Rockville,</p>	EIS Volume 4 - Engineering Feasibility Study Compendium, Section 3.

**TABLE 1**  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>or the Federal Highway Administration, are able or willing to provide processing capacity or facility space. Neither the United States Army Corps of Engineers, the United States Army, nor the Washington Aqueduct have any authority over any of the agencies. Like Washington Aqueduct, each of these facilities has mission requirements and short-term and long-term plans for meeting them.</p> <p>In addition, in many cases (for example, Carderock) even if there were space available for Washington Aqueduct facilities, it would not be a total solution. Many of the concerns being addressed at the Washington Aqueduct would just be transferred to another location.</p>	
DF	Fairfax Water - Corbalis WTP	<p>Fairfax Water was contacted to determine if they would be able to process Washington Aqueduct's residuals. They indicated that this was not feasible due to a lack of excess capacity. The processing of Washington Aqueduct residuals is also not within Fairfax Water's mission. In addition to issues related to the Fairfax Water's capacity and mission, implementation of a Fairfax Water residuals processing option would also require the construction of a dedicated residuals pipeline to convey the residuals from the Dalecarlia WTP site to the Corbalis Water Treatment Plan site. Such a pipeline would be difficult and costly to install, requiring permission from numerous agencies and private property owners. Based on our analysis of similar piping alternatives, the time required to obtain new easements and the costs associated with constructing the residuals pipeline would create additional obstacles to implementing such an option. Compliance with the FFCA residuals project schedule, as well as, cost screening criteria defined for the project are not feasible for this alternative.</p>	<p>EIS Volume 2A – Appendices</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3</p>
DG	Potomac River	<p>It would be possible to use the existing residuals discharge pipes that connect the sedimentation basins to the Potomac River as carrier pipes to transport thickened residuals to the river. However, it is unlikely that the National Park Service would allow Washington Aqueduct to construct a barge loading station or residuals storage tanks on National Park land adjacent to the Potomac River. It is also likely that the approval to construct a residuals pipeline within the Potomac River bed to transport residuals to the Blue Plains AWWTP could be obtained and the pipeline constructed within the FFCA schedule milestones required by EPA. As a minimum, it is anticipated that a pipeline route study and archeological investigation of the route would be required to prove that there aren't any</p>	<p>EIS Volume 4 - Engineering Feasibility Study Compendium, Section 3.</p>

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>other routes available for the pipeline that present fewer impacts on park land. As with the pipeline to Blue Plains explored for Alternative C, it is anticipated that many Federal and local agencies would become involved in the design, permitting, and approval of such a pipeline route. The timeframe required for such approvals would be considerable, certainly beyond the timeframes allowed in the FFCA schedule. In addition to the pipeline issues, the alternative would also be negatively impacted by WASA's need to reserve property at the Blue Plains AWWTP for planned future nutrient reduction and CSO treatment improvements. This position prevents Washington Aqueduct from constructing any water treatment residuals processing on the Blue Plains AWWTP site.</p>	
DH	George Washington Parkway	<p>This alternate pipeline route was evaluated in Volume 4 of the EIS.</p> <p>The George Washington Parkway is not considered a suitable residuals disposal route through Virginia because truck access is restricted on this road. The two residuals haul routes proposed through northern Virginia in the EIS are considered more appropriate options because they do not have similar truck restrictions and are capable of handling the number of residuals trucks proposed for the Washington Aqueduct residuals project.</p>	EIS Volume 4 – Engineering Feasibility Study Compendium, Table 3-7.
DI	Pipeline Size	The two 12-inch pipelines proposed for the Blue Plains alternative provide 100-percent redundancy for the design flow rate.	EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3.1.2 Alternative 5 discussion
DJ	Regionalization	<p>Washington Aqueduct has a copy of the December 2000 report entitled "DC WASA Regionalization Study" prepared by staff from the Metropolitan Washington Council of Governments under contract to the District of Columbia Water and Sewer Authority in support of the DC WASA Regionalization Committee. Washington Aqueduct management has met with the consultant conducting the study and given them a full understanding of our current and future operations. The acknowledgements of this report have no reference to any involvement by Washington Aqueduct specifically or the Corps of Engineers in general.</p> <p>Washington Aqueduct is also aware that in March 2005, the DC WASA board acted on an agenda item selecting a regionalization study committee to fulfill the commitment to do a five years hence reevaluation of the work done in 2000. The general manager of Washington Aqueduct has recently met with a representative of the contractor doing the study for DC WASA. Washington Aqueduct explained its role as a wholesale</p>	EIS Volume 4 – Engineering Feasibility Study Compendium

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>producer and described its business and operational relationships with its customers. It is Washington Aqueduct's view that the current operational and business arrangement is sound. At the interview, the question of residuals was discussed and it was pointed out that the issue of piping to WASA's Blue Plains facility for processing and removal at that location is a technical, engineering issue and is not related to governance.</p> <p>The 2000 report was clear that there are many possible models for what might constitute regionalization of the wastewater and drinking water systems. Centralized ownership and operation of all wastewater and drinking water plants in the District of Columbia, in Northern Virginia, and in the Maryland counties adjacent to the District of Columbia is one option that might be studied. Without commenting on the appropriateness or likelihood of this model being selected and implemented, the practical issue is that EPA Region 3 has issued an NPDES permit that has an accompanying compliance schedule that is not compatible with the establishment of an independent regional authority. Regardless of the management structure that might come from a decision to create an independent regional authority sometime in the future, the fact remains that the Dalecarlia and McMillan water treatment plants will continue to operate to produce potable water for the region because the surrounding water treatment utilities do not have sufficient excess treatment capacity to offset the existing Washington Aqueduct production rate and residuals from these plants would have to be managed.</p> <p>Washington Aqueduct has consulted with WSSC, Fairfax Water and the city of Rockville to determine if those entities are able to handle the solids produced by Washington Aqueduct. In all cases, their existing residuals processing capacity is insufficient to accommodate the Washington Aqueduct residuals. In addition, the cost and environmental impacts associated with transporting the Washington Aqueduct residuals to another facility are significant.</p>	
DK	Rockville WTP	<p>The City of Rockville, MD was contacted to determine if they would be able to process Washington Aqueduct's residuals. They indicated that this was not feasible for a variety of reasons (inadequate treatment plant and residuals processing capacity (5 mgd average water production rate for Rockville WTP versus 185 mgd for Washington Aqueduct), tight site conditions, etc.). The processing of Washington Aqueduct residuals is also not within the mission of the City of Rockville. In addition to issues related</p>	EIS Volume 2A – Appendices

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>to the Rockville WTP site and mission, implementation of a Rockville residuals processing option would also require the construction of a dedicated residuals pipeline to convey the residuals from the Dalecarlia WTP site to the Rockville WTP site. Such a pipeline could be installed inside the existing Washington Aqueduct raw water conduit for some distance. However, a section of the pipeline to the Rockville WTP site would have to be direct buried and routed through either National Park Service or private property. New easements would be required for this portion of the route. Based on our analysis of other similar piping alternatives, the time required to obtain new easements and the costs associated with constructing the residuals pipeline would create additional obstacles to implementing such an option. Compliance with the FFCA residuals project schedule, as well as, cost screening criteria defined for the project is not feasible for this alternative.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3</p>
DL	Processing site near Beltway	<p>As with Alternate 8 as evaluated in Volume 4 of the EIS (Engineering Feasibility Study Compendium), it is not feasible to locate and acquire a new site situated near the Beltway, design residuals transport and processing facilities, and construct said facilities within the requirements of the FFCA compliance schedule due to time requirements for siting, obtaining real estate at the new site, as well as, for obtaining a pipeline easement. The FFCA provides a legally mandated plan and time frame to achieve and maintain compliance with the NPDES permit. This suggested alternative cannot be achieved within the time frame constraints of the FFCA. Thus, this alternative is not consistent with the purpose and need of the project. Untimely or non-implementation of the FFCA would result in undesirable consequences impairing the Aqueduct’s ability to provide water to its customers and continuing the practice of returning residuals to the Potomac River.</p> <p>EPA granted the Aqueduct an extension to the FFCA milestone to develop and notify EPA of the engineering and best management practices to be implemented to achieve compliance with the NPDES permit and a schedule to implement those practices with the understanding that the Aqueduct would not request an extension to the implementation schedule. In the project meeting described in 5.2.8 of the EIS, EPA ruled out extensions to the FFCA implementation schedule.</p> <p>Although there is no tangible evidence such a site is available, assume, for discussion, that there is a tract of land available in some location</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3.1.2 Alternatives That Do Not Require Continuous Trucks from the Dalecarlia WTP Complex (see Alternative 8 write-up)</p>



TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>adjacent to the Beltway. If the Washington Aqueduct were to consider this tract for residuals processing it would first have to get a commitment that this land would be available for the intended use. In the case of private land this would mean that the land would have to be purchased. After securing the property the new alternative would need to be evaluated in the same manner as the alternatives considered to this point. This would involve everything from studying the engineering feasibility of getting the liquid residuals to the processing point to assessing all environmental impacts associated with the alternative. In any case, the cost would include most or all costs associated with the current alternative E plus the cost of securing land for the facilities and the right of way to get there and the time it would take to accomplish this would be many months to years.</p> <p>Many of the recent alternatives suggested by the public have involved transporting liquid residuals in a dedicated pipeline installed within the raw water conduit that connects the Great Falls Potomac River intake structure with the Dalecarlia Reservoir as a means to avoid the time and cost associated with acquiring a dedicated right-of-way for the liquid residuals pipeline to a processing site near the Beltway. The potential schedule and cost benefit afforded by using the existing raw water conduit as a "carrier" pipe for a residuals pipeline cannot be taken full advantage of unless a residuals processing site can be identified immediately adjacent to or near the existing raw water conduit. In order to provide a benefit from a residential neighborhood impact perspective, this site must also be located along a major trucking route (i.e., non-residential street) that connects to the Beltway without requiring trucks to drive on neighborhood streets. The Carderock alternative provided one of these two potential benefits – it is located adjacent to the raw water conduit. However, processing residuals on the Carderock site would have still required dewatered residuals to be hauled through residential neighborhoods serviced by 2-lane subdivision roads no more suitable for truck traffic than similar haul routes proposed for residuals Alternative E. This suggested alternative also included speculation that a direct Beltway interchange could be constructed. Creating a direct Beltway interchange is a remote, costly and time prohibitive possibility. It would require basic changes in legislation and policies of other federal and local agencies, such as the National Park Service, which would be likely to result in protracted debate and possible litigation of their own. In addition, a residuals processing site located near the Beltway would still have the</p>	

**TABLE 1**  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>round trip residuals haul distance of approximately 140 miles (versus the 150 miles assumed or the Dalecarlia WTP alternative.</p> <p>We are not aware of any site, nor has any site been suggested adjacent to the raw water conduit that is available for use and also serviced by roads that are any more suitable for residuals trucks than the routes proposed for Alternative E.</p>	
DM	COE hasn't adequately investigated other piping alternatives	<p>The Washington Aqueduct has investigated over 120 piping alternatives to a variety of potential residuals processing locations. In all cases, the owners of the potential processing locations have declined to allow Washington Aqueduct to site residuals processing facilities on their site. This renders all such alternatives infeasible.</p> <p>Any other possible piping alternatives not already addressed in the EIS and discussed in topic DL above would have common components that make them infeasible.</p>	EIS Volume 4 - Engineering Feasibility Study Compendium
EA	Residuals disposal method	<p>Marketing of residuals as a "soil conditioner" is evaluated in the EIS. It can be concluded that the market for the land disposal of water treatment residuals is viable. Water treatment residuals are generally not suitable to apply as a fertilizer or use in composting operations because their organic content is quite low. Alum-based water treatment residuals typically have some ability to bind phosphorus, such as present in runoff. However the phosphorous binding characteristics of water treatment residuals vary from site to site. The water treatment residuals disposal market is not currently focused on taking advantage of this characteristic of alum-based water treatment residuals. However, given the level of concern associated with excess phosphorous being discharged into the Chesapeake Bay, it seems likely that this could change in the future. Washington Aqueduct remains interested in exploring a beneficial reuse disposal option for their water treatment residuals if it can be implemented cost effectively and reliably.</p> <p>The application of water treatment residuals to agricultural land is different than discharging it to the Potomac River because the solids contained within the residuals do not return to the river. Land application rates are regulated by the States to prevent runoff from containing excess solids.</p> <p>One potential residuals disposal method under consideration by Washington Aqueduct is to allow a cement plant to use the residuals in</p>	EIS Volume 1 – Section 4.16 Land Application of Water Treatment Residuals

**TABLE 1**  
Comments and Responses by Topic

<b>Topic / Sub-topic</b>	<b>Summary</b>	<b>Response</b>	<b>See EIS section</b>
		<p>the manufacturer of cement. A sample of residuals was provided to Lehigh Cement for their evaluation so that they can determine if this option is cost effective.</p> <p>The public comments received to date suggest disposing of dewatered residuals at multiple sites. Depending upon the contractors that are awarded disposal contracts, multiple sites may or may not be used.</p> <p>Using the dewatered residuals to create a residuals island in the Potomac River or the Chesapeake Bay cannot be recommended as the preferred alternative given EPA's opposition to continuing to discharge the residuals to the Potomac River. It is also unlikely that the permitting activities associated with such an endeavor, assuming that EPA would consider it, could be accomplished within the schedule imposed by the FFCA.</p> <p>The disposal of dewatered residuals in a landfill is considered a feasible alternative. Based on our discussion with various residuals disposal contractors, land application on agricultural land may be preferable to landfilling from a cost perspective.</p> <p>Specific residuals disposal locations have not been identified in the EIS because disposal locations vary by residuals disposal contractor. Specific land application sites are also expected to change over time, as regional development transforms agricultural land uses into suburban land uses.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium section 3.2 Alternative P84 discussion.</p> <p>EIS Volume 1 – Section 4.16</p>

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
EB	Residuals processing method and impacts	<p>Plasma heat treatment of residuals is one of the alternatives (Alternative 26) that were considered and screened in May 2004 following the Scoping Meeting. Alternative 26 was found inconsistent with screening criteria, proven methods, reliability and redundancy and economic considerations and is therefore not carried forward for detailed evaluation in the EIS.</p> <p>Alternate temporary residuals storage locations, such as the Dalecarlia Reservoir, are evaluated in the Engineering Feasibility Study Compendium.</p> <p>Some public comments suggest alternate residuals processing methods to reduce the number of trucks per day required to haul residuals to a remote disposal site. The number of trucks required per day is directly related to the dryness of the residuals cake being hauled. Thirty-percent cake dryness is currently envisioned for the trucking alternatives. Grinding residuals into a finer material as suggested in one public comment would not have an impact on the density or dryness of the residuals and, as a result, would not reduce the number of trucks required to haul the residuals.</p> <p>Alternate residuals dewatering technologies, such as centrifuges and belt filter presses, will be evaluated further during the design phase of the project. Both technologies can fit into the proposed residuals dewatering building described in the EFS. Neither technology has an environmental impact advantage because they dewater the residuals to essentially the same dryness and generate similar noise levels outside of the dewatering building.</p> <p>Chapter 4 of Volume 1 of the EIS describes the environmental impacts of 4 alternatives plus the No Action alternative. This information allows the public to compare the relative impacts of various alternatives.</p>	<p>EIS Volume 4 - Engineering Feasibility Study Compendium Section 3.1 – May 2004 Alternatives Screening</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium Section 3.2.2 – Public Alternative P82 discussion</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3.</p> <p>EIS Volume 1, Chapter 4</p>

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
EC	Residuals Quantities	<p>The quantities of residuals that require disposal varies considerably from alternative to alternative because some alternatives anticipate pumping thickened residuals at 2-percent solids while others assume that dewatered residuals at 30-percent solids will be trucked offsite. Less concentrated residuals (such as thickened residuals) require a much larger volume of water to be pumped or hauled away to remove the same number of pounds of solids. This is why the number of trucks of dewatered residuals is not directly comparable to the number of gallons of thickened residuals without adjusting for the extra volume of water associated with the thickened residuals. An example residuals volume calculation has been added to the appendices of the Volume 4 of the EIS – Engineering Feasibility Study Compendium to help explain this conversion.</p> <p>The impacts associated with each residuals processing alternative are discussed in Section 4 of the EIS.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium, Appendices and Sections 2 and 3.</p> <p>EIS Volume 1, Section 4.</p>
FA	Construction Schedule	<p>See transcripts for responses.</p> <p>A bar chart schedule showing the estimated durations of the EIS preparation and review, design, and construction periods for the residuals project is provided in the Executive Summary section of the EIS. This schedule describes how the residuals project will be completed in conformance with the FFCA milestone deadlines defined by EPA.</p>	<p>EIS, Volume 1, Section 2.3</p> <p>EIS Volume 1, Executive Summary</p>
FB	EIS Schedule	<p>A discussion of the Washington Aqueduct’s NPDES permit and associated FFCA is provided in the Background and Project History section of the EIS Executive Summary.</p> <p>The EIS schedule is driven by the need to meet milestones associated with the overall compliance with the FFCA. The alternatives screening process also included compliance with this schedule as one of the criterion for determining whether an alternative was consistent with the purpose and need for the project. The objectives defining the purpose and need were listed in the Notice of Intent, which was published in the Federal Register on January 12, 2004.</p> <p>The final EIS contains an updated project schedule which reflects the extensions granted in the interest of public involvement during the EIS process. The schedule indicates that the project can still be completed within the FFCA schedule milestones without taking any extraordinary</p>	<p>EIS Volume 1, the Executive Summary lists the objectives defining the project’s purpose and need and provides a project schedule.</p> <p>EIS Volume 1, Section 2.3 describes the screening criteria, including the one to meet the FFCA schedule.</p> <p>EIS Volume 2, A copy of the FFCA schedule is included under the Regulatory Information tab.</p> <p>EIS Volume 4, Engineering Feasibility Studies Compendium provides a complete description of the screening evaluation and results.</p>

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		measures.	
FC	Compliance performance	<p>Alternatives that would otherwise be feasible but cannot be implemented within the timeframe stipulated within the FFCA schedule were eliminated from consideration as the recommended alternative because the FFCA schedule is a legally binding requirement. The FFCA provides a legally mandated plan and time frame to achieve and maintain compliance with the NPDES permit. Thus, these alternatives that are not compatible with the FFCA are not consistent with the purpose and need of the project. Untimely or non-implementation of the FFCA would result in undesirable consequences impairing the Aqueduct's ability to provide water to its customers and continuing the practice of returning residuals to the Potomac River. EPA granted the Aqueduct an extension to an internal milestone in the FFCA deadline to develop and notify EPA of the engineering and best management practices to be implemented to achieve compliance with the NPDES permit and a schedule to implement those practices with the understanding that the Aqueduct would be held to the final compliance deadlines in 2008 and 2009. In the project meeting described in 5.2.8 of the EIS, EPA ruled out extensions to the FFCA implementation schedule.</p>	EIS Volume 2 – Appendices, Regulatory Information Section
FD	Short-term or Temporary alternatives	<p>The 20-year life defined for the monofill is consistent with the planning period adopted for the EIS as a whole. It is also consistent with planning horizons used in engineering feasibility studies.</p> <p>The consideration of short and long-term alternatives within the Engineering Feasibility Study Compendium is limited to residuals options such as the use of alternate coagulants, etc. In general, two-phased residuals processing alternatives (i.e., truck for a short period of time followed by the Blue Plains alternative) are not recommended because they could result in residuals processing facilities that are required for the initial phase having to be abandoned in the second phase.</p> <p>Alternate two phase residuals processing suggestions offered by the public, such as hauling wetter residuals initially followed by “a better long term solution” in the future, would result in a significantly larger number of trucks being required to haul wetter residuals in the short term – worst case average in excess of 300 trucks per day to truck thickened residuals. Most residuals dewatering technologies are capable of producing a dewatered residuals cake with a solids concentration of 30-percent or greater (i.e., 70-percent water and 30-percent solids). Technologies that</p>	EIS Volume 4 – Engineering Feasibility Study Compendium Sections 3 and 4.

**TABLE 1**  
Comments and Responses by Topic

<b>Topic / Sub-topic</b>	<b>Summary</b>	<b>Response</b>	<b>See EIS section</b>
		produce a wetter material, such as gravity thickening, tend to produce a liquid residual product. Gravity thickening is currently envisioned as the first step in the residuals handling process, followed by centrifuge dewatering. Gravity thickening is capable of reliably producing a 2-percent solid product. The trucking alternatives discussed in the EIS anticipated producing 6-8 trucks of water treatment residuals per day on average. Six trucks per day of dewatered residuals (at 30-percent solids) is equivalent to approximately 85-90 trucks per day of thickened liquid residuals (at 2-percent solids).	
FE	Public comment period	Four public comment periods were provided prior to the issuance of the FEIS:  <ol style="list-style-type: none"> <li>1. The Scoping Period - January 11, 2004 through February 11, 2004)</li> <li>2. The first extension of alternatives identification period (September 10, 2004 through November 15, 2004)</li> <li>3. The second extension of the alternatives identification period (December 23, 2004 through February 14, 2005)</li> <li>4. The DEIS comment period starting with the publication of the Notice of Availability of the DEIS in the Federal Register on April 22, 2005 and ending on July 6, 2005. This period includes a 30 day extension to the original 45 day DEIS comment period.</li> </ol>	EIS Volume 1 - Section 5 Public Involvement
FF	EIS review period time extension	The Notice of Availability for the DEIS was published in the Federal Register on April 22 2005, and the 45 day public comment period was initiated. The public comment period was extended to 75 days, or to July 6, 2005.	EIS Volume 1 - Section 5 Public Involvement  EIS Volume 3 – Comments and Responses – Document 120
FG	EPA grants interim FFCA schedule milestone extension	In response to various requests for additional time to review the DEIS, Washington Aqueduct requested that EPA extend their intermediate milestone deadline for submission of the Record of Decision to November 2, 2005 (paragraph 22 of the FFCA). This request was granted by EPA in a letter dated June 27, 2005. Although additional time was granted by EPA for DEIS review by the public, the 2008 and 2009 deadlines defined in the FFCA for removing part or all of the residuals from the Potomac River remain unchanged.	EIS Volume 3 - Comments and Responses – Document 120

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
GA	Trucking, neighborhood impact	<p>Unless the water treatment residuals are returned to the Potomac River or are stockpiled locally at Dalecarlia in a monofill, there will necessarily be trucking of the residuals from the dewatering facility whether newly constructed or at an existing location to an eventual land application site. Those trucks will transit public streets and highways.</p> <p>Alternatives B and E thoroughly evaluate impacts of trucking on nearby neighbors, from two different residuals processing locations (B- Northwest Dalecarlia Processing Site, E- East Dalecarlia Processing Site)</p> <p>For alternatives that rely on hauling residuals to a remote disposal site trucking operations will meet all requirements established for the use of trucking routes including weight limitations, if any, permitting, etc.</p> <p>Following the issuance of the DEIS, numerous comments were received from the public regarding the worst-case number of trucks per day predicted during extremely wet conditions (anticipated to occur for approximately a 2-week duration on a frequency of 2 out of 11 years). A 132-truck-per-day value is defined in the public comment correspondence, but this value is not correct. In the DEIS, Washington Aqueduct committed to a maximum of 33 trucks per day (inbound) and 33 trucks per day (outbound) under worst-case wet-weather conditions. The discussion below explains why these peak truck-per-day values have now been reduced to 25 trucks per day (inbound) and 25 trucks per day (outbound) for the final EIS.</p> <p>A complete listing of predicted residuals truck loads associated with a variety of river turbidity conditions are provided in the Engineering Feasibility Study Compendium. Truck load estimates have been prepared for two sets of conditions, loads associated with long term (11-year) average conditions and loads associated with wet year conditions. The highest river turbidity conditions are associated with wet year, design conditions and the lowest river turbidity conditions are associated with the long-term annual average conditions. A maximum of 33 truck loads per day (based on hauling peak residuals quantities 5 days per week) were predicted for worst case conditions that are expected to occur no more than approximately 14 days every 11 years. This number has been reduced to 25 truck loads per day for worst case conditions. See discussion below. A more typical maximum truck load value of 13 trips per day is predicted for up to 30 days each year. The average number of</p>	<p>EIS Volume 1 - Sections 3 and 4, throughout</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium, Table 3-6.</p> <p>EIS Volume 1 – Section 7 Cumulative Impacts and Mitigation</p>



TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>truck loads predicted over an annual period is 8 per day.</p> <p><b>Impact of residuals equalization on truckloads per day:</b></p> <p>Based on the public’s concern about the peak number of residual trucks identified in the DEIS, Washington Aqueduct re-analyzed whether the peak number of truck loads could be further reduced within the current project budget. The peak residuals truck load values listed in the DEIS (i.e., 33 truck loads per day during the maximum design wet year) assumed that a portion of the water treatment residuals generated in the Georgetown Reservoir would be stored within the reservoir temporarily before pumping them to the residuals thickening and dewatering facility. This approach lessens the peak theoretical dewatered residuals truck loads per day predicted for this worse-case event.</p> <p>Due to the nature of the existing basins and the proposed residual removal equipment, liquid residuals cannot be similarly stored in the Dalecarlia sedimentation basins. However, the gravity thickeners located downstream of the sedimentation basins provide some opportunity to further equalize residuals flows. This capability was not taken into consideration in the DEIS analysis. Limited temporary storage of thickened residuals is possible in the gravity thickeners if they are deepened slightly (approximately 1 foot) and operated such that some thickener storage volume is reserved to store the peak residuals quantities associated with storm events. Consideration of this additional residuals flow equalization capability could allow the peak number of anticipated dewatered residuals truck loads per day to be lowered from 33 truck loads per day (maximum design year wet weather conditions) to a maximum design wet year rate of between 20 and 25 truck loads per day depending upon the demand for finished drinking water. Washington Aqueduct is committed to providing this additional thickener depth and operating the thickeners in such a manner so as to restrict the peak number of truck loads leaving the dewatering site to a maximum of 25 truck loads per day. The increased depth should be able to be designed so that it does not increase the overall height of the thickener structures.</p> <p><b>Start-up year versus design year truck trips per day:</b></p> <p>Practically speaking, the peak number of trucks listed above will be further reduced during the initial years of operation of the residuals thickening and dewatering facility. This is possible because the residuals truck loads</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium – Appendices</p> <p>EIS Volume 1 – Section 7 Cumulative Impacts and Mitigation</p>

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>listed in the DEIS are based upon water demands projected for the design year (i.e., the end of the 20-year EIS planning period). An average design year water demand of 220 mgd was used to estimate the residuals quantities listed in the DEIS. The historical average Washington Aqueduct water demands have been significantly lower than 220 mgd, ranging between 175 and 180 mgd, or approximately 80-percent of the design value used for the DEIS. The 11-years of historical data analyzed for the DEIS also indicates that the Washington Aqueduct average water demands have remained stable or declined slightly over the last 11 years, indicating that the water demand values used in the DEIS are quite conservative.</p> <p>When the current demand factors are applied to the 33 peak residuals truckloads predicted for the wet year, initial start-up peak truckload values of 26-27 truck loads per day are predicted (i.e., 33 truck loads/day X 0.8 = 26.4 truck loads per day at system start-up). Assuming that the gravity thickeners are used to temporarily store start-up peak residuals quantities as described above, the 26-27 peak truck loads per day predicted for initial start-up wet years would be further reduced to approximately 20 truck loads per day.</p> <p>In all cases described above, the use of the gravity thickeners as temporary storage vessels would reduce only the peak number of loads produced at the Washington Aqueduct residuals facility. The total volume of material requiring disposal (i.e., the total number of truck loads required) would remain unchanged. The stored residuals would be hauled as part of future activity when the volume of residuals requiring removal is reduced.</p> <p><b>Listing schools along truck routes:</b></p> <p>Although the EIS lists some of the schools along the proposed truck routes, the intent of the EIS was not to identify all schools along each route. Rather, the intent was to identify typical types of facilities along the truck routes. Additional schools, located along the proposed truck hauling routes, were added to the EIS text following the receipt of the DEIS comments.</p> <p><b>Truck accidents along proposed truck hauling routes:</b></p> <p>The number of truck accidents on proposed truck hauling routes is not</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium – Appendices</p> <p>]</p> <p>EIS Volume 1 – Section 3.10</p>

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>anticipated to increase as a result of adding an average of 8 truck loads per day to these roads. The accident rate along roads is only partially related to the volume of traffic. Other road and intersection design criteria are potentially more important than truck volumes given the relatively small truck volume increase proposed for the neighborhood roads with this project. The truck haul routes under consideration on this project generally have existing trucks counts ranging from approximately one hundred trucks per day to 2,000 trucks per day.</p> <p>The contract terms for the potential residuals haulers will require full disclosure of each haulers accident record. This information will be considered as one of the selection criteria for the haulers. Accident reporting as response procedures will also be required as part of the hauling contract to ensure that accidents are responded to quickly.</p> <p><b>Trucking mitigation measures requested by the public:</b></p> <p><u>Repave Dalecarlia Parkway with sound deadening asphalt:</u> Washington Aqueduct does not know the basis of the pavement design used by the District of Columbia for Dalecarlia Parkway that has resulted in the concrete surface. The current roadway will (as will all roadways on routes considered for trucking) properly support the loaded weight of the trucks. Washington Aqueduct will address the surface noise concern to the DC Department of Transportation, but must defer to the Department for their determination of the appropriate surface for this road.</p> <p><u>Reimbursement for truck related damage to Montgomery County roads:</u> The public roads exist for personal and commercial use. State and local jurisdictions are responsible for maintenance of roads. Each jurisdiction funds road maintenance and repair within its budget often through permitting, taxes, etc.</p> <p><u>Speed limit and warning signs:</u> All employees and contractors of Washington Aqueduct using the public roads in accordance with their duties at Washington Aqueduct are responsible to operate their vehicles in a safe and courteous manner. That operation will be commensurate with the speed and caution postings of the local jurisdictions. At the exit point from a residuals facility constructed on Washington Aqueduct property, a prominent sign will be erected reminding drivers to cover their loads, avoid tracking mud on to the roads, and to drive in accordance with law, regulation, and common courtesy.</p> <p><u>Additional speed monitoring and enforcement by the police:</u> Washington</p>	



TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section
		<p>trucks proposed for this project.</p> <p><b>Truck impact on neighborhood ambience:</b></p> <p>No significant impact on neighborhood ambience is anticipated to be associated with the additional trucks proposed for this residuals handling project given the relatively large number of trucks and vehicles that currently make use of the proposed trucking routes.</p> <p><b>Trucking impact on traffic congestion in an already congested area:</b></p> <p>The analysis in the EIS shows that none of the feasible routes would have traffic flow or congestion impacts that reduce the level of service on the route due to the project's trucking operation, with the exception of route A. Trucking hours will be restricted on Route A to between 9:30 AM and 3:00 PM to reduce any potential impact on this route. Routes F and G are designated as emergency use only due to pedestrian traffic and security issues related to the use of Constitution Avenue. The use of these two routes, F&amp;G, for this project would not change their level of service but will require a permit from the National Park Service.</p> <p><b>Incomplete response to Montgomery County Planning Board letter:</b></p> <p>Responses to the individual comments contained within the June 1, 2005 letter from the Montgomery County Planning Board (document 125) are discussed in the applicable topic categories summarized herein.</p>	
GB	Trucking alternative	<p>Under all of the feasible alternatives selected for evaluation in the EIS, pipelines would convey water treatment residuals from both the onsite sedimentation basins and the Georgetown Reservoir to the Dalecarlia thickening facility. Trucking from Georgetown to Dalecarlia is not under consideration for detailed evaluation in the EIS.</p> <p>Trucking at night was suggested by the public as an alternative to daytime trucking. While potentially favorable from a traffic standpoint, night trucking would likely result in more noise impacts on the surrounding neighborhoods due to lower ambient nighttime noise levels. Moreover, the residuals receiving facilities typically do not operate at night.</p> <p>Trucking dewatered residuals to offsite disposal is a common practice in the water and wastewater treatment industry, including the other two large water treatment facilities in the region (the Fairfax Water Corbalis WTP</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium Section 3 – Screening of Alternatives</p> <p>EIS Volume 1 – Section 4.16</p>

TABLE 1  
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Topic / Sub-topic	Summary	Response	See EIS section
		<p>and the WSSC Potomac WFP). Other, more uncommon processing options, such as plasma treatment of residuals cannot be recommended as the preferred alternative because they are not considered proven and are not cost effective, although, even these technologies, typically result in a byproduct that is commonly trucked away to an offsite disposal site.</p> <p><b>Alum Recovery:</b></p> <p>Reference a memo discussing alum recovery included in the Appendices of the Engineering Feasibility Study Compendium.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium - Appendices</p>
GC	Trucking, noise	<p><b>Noise impacts from facility and trucks:</b></p> <p>Noise impacts associated with the proposed residuals thickening and dewatering facility are evaluated in the EIS. In general, the dewatering building is not anticipated to contribute noise to the surrounding neighborhood due to the distance from the facility to the neighbors and the use of sound absorbing building materials. Truck noise entering and exiting the dewatering facility will be minimized by prohibiting idling before loading, providing enclosed loading bays, and providing berms around the loading area that will function similar to sound walls along area interstates by directing noise away from neighbors. With this mitigation, noise impacts are determined to be not significant.</p> <p><b>Truck noise mitigation measures:</b></p> <p>Noise mitigation measures will include selecting building materials that absorb noise associated with the enclosed dewatering equipment, enclosing truck loading bays, constructing earthen berms around the dewatering building to deflect/absorb truck related noise, and providing storage hoppers on the intermediate floor to act as sound buffers that prevent noise associated with the dewatering centrifuges (located on the top floor of the building) from reaching the truck loading area. Noise mitigation along residuals trucking routes will be accomplished by reminding truck drivers to drive responsibly and to be considerate of the residential neighborhood impacts that their trucks could have by posting a sign at the exit from the site.</p>	<p>EIS Volume 1 – Section 4.3 Noise</p> <p>EIS Volume 1 – Section 7.2</p>
GD	Trucking routes	<p>One of the alternatives suggested by the public, which was found to be consistent with the screening criteria, involves a new site at the Dalecarlia Reservoir, located adjacent to Little Falls Road, for the residuals</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3.2.3- Description of Public Alternatives Consistent with Screening</p>

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Topic / Sub-topic	Summary	Response	See EIS section
		<p>thickening and dewatering facilities. This alternative is carried through for detailed evaluation in the EIS as Alternative E. It offers some advantages from a trucking perspective because it does not require trucks to travel loaded with residuals to travel uphill on Loughboro Road.</p> <p>One of the alternative truck routes considered, but subsequently eliminated, involves constructing a new access road from the Dalecarlia WTP site to the Clara Barton Parkway. This route was eliminated from consideration because the National Park Service does not allow truck traffic on the Clara Barton Parkway.</p> <p>Using smaller trucks to dispose of dewatered residuals offsite would not increase the number of available haul routes through the area surrounding the Dalecarlia WTP. The proposed routes were selected based upon their suitability for truck traffic. This criterion does not change if smaller trucks are proposed.</p> <p>Trucking route maps are included in the EIS.</p> <p><b>MacArthur Boulevard appropriate as a truck route?</b></p> <p>Some members of the public expressed concern about the appropriateness of using MacArthur Boulevard as a truck haul road, indicating that trucks are not allowed on this road. There are no special weight restrictions on MacArthur Boulevard in the District of Columbia. Weight restrictions exist in Maryland due to the raw water conduits under the roadway.</p> <p><b>Do trucks traveling to Westmoreland Circle immediately access Dalecarlia Parkway?</b></p> <p>Yes, truck access routes near the Dalecarlia plant are shown in Figure 4-1.</p> <p><b>Single truck route proposed in DEIS:</b></p> <p>In the Draft EIS we evaluated eight truck haul routes, not one or two routes as stated in the comments submitted by the public. All of the routes evaluated, except route C, can be used to haul residuals. A permit from the National Park Service would be required to haul residuals on routes F and G. All routes were selected because they followed high volume roads designated for truck traffic keeping with DC DOT's truck route policies and recommendations. Although five of the original eight routes studied can</p>	<p>Criteria</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium, Table 3-7 Alternative P79</p> <p>EIS Volume 1, Section 3.</p> <p>EIS Volume 1 – Figure 3-8</p> <p>EIS Volume 1 – Section 7.2</p>

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Topic / Sub-topic	Summary	Response	See EIS section
		<p>be used without restriction and without causing a significant impact, the Washington Aqueduct may choose to study and propose additional routes to replace the three that were found to have limitations or restrictions. In this case the Washington Aqueduct would provide appropriate supplemental documentation in the future.</p> <p><b>Quantify Impact of Trucks on Neighborhood Roads:</b></p> <p>The proposed number of residuals trucks is relatively small when compared with the daily truck volume on the proposed haul routes. As a result, truck impacts are expected to be relatively small and well within the range of impacts taken into account in the design of urban truck routes.</p> <p>The public roads exist for personal and commercial use. State and local jurisdictions are responsible for maintenance of roads. Each jurisdiction plans for and funds road maintenance and repair within its budget often through permitting, taxes, etc.</p> <p><b>Limit trucks through Montgomery County to those delivering to Maryland disposal sites:</b></p> <p>Because limitations could have the effect of higher contract costs, limitations will not be included. However, it is logical to expect that elevated fuel and maintenance costs associated with lengthy haul distances will encourage residuals haulers to follow the most direct haul route to their destination.</p> <p><b>Truck dispersal plan needed:</b></p> <p>Distributing residuals trucks on all feasible proposed routes is not cost effective. The total haul distance could be increased by up to 30-40 miles if trucks are evenly distributed on all routes. For example, some trucks destined for a disposal site in Maryland would have to travel southeast to the Beltway and then travel around the Beltway on the east side of the City. This practice would increase hauling costs and increase traffic congestion within the District of Columbia and on the Beltway in Maryland or Virginia. If a disposal contractor did have disposal sites available in several directions he would choose the best routes to get to those sites but to commit to evenly distributing routes would be impractical and would have undesirable consequences. In all cases studied, concentrating</p>	



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		<p>trucks on one route would not decrease the level of service of that route.</p> <p>See topic GA for a discussion of schools along trucking routes.</p>	
GE	Trucking frequency	<p>See transcripts for responses and topic GA for additional information on 132 trucks per day. The number of truck loads required to haul dewatered residuals offsite is summarized in the Volume 4 of the EIS.</p> <p><b>Adverse impacts of 132 trucks per day through a residential area:</b></p> <p>With the proposed mitigation implemented (as described in topic GA), the maximum number of truck loads per day required to remove residuals from the Dalecarlia WTP under worst case wet year conditions is 25 truck loads per day based upon 20-ton trucks. The 132 truck per day value suggested in the public comments corresponds to a theoretical maximum number of times that a truck could pass by a given house if all trucks used the same route entering and exiting the site on the maximum residuals production day (expected to occur 2 weeks every 11 years) anticipated in the design year and if 10-ton trucks were used. The 132 truck per day number is not an accurate representation of the number of trucks that will typically be traveling through the neighborhoods surrounding the Dalecarlia WTP. It represents an extreme peak operating condition. It also does not consider:</p> <ul style="list-style-type: none"> <li>- lower water production rates historically produced by the Washington Aqueduct</li> <li>- the planned use of 20-ton trucks versus 10 ton trucks to reduce operating costs</li> <li>- the potential for reducing peak truck loads per day by equalizing peak residual processing rates</li> </ul> <p>In addition, it does not represent the number of trucks, but rather, one way truck trips.</p> <p><b>Trucking Schedule:</b></p> <p>See discussion under topic GK.</p>	<p>EIS Volume 4 – Engineering Feasibility Study Compendium, Tables 2-1 and 3-6</p> <p>EIS Volume 1 – Section 7.2</p> <p>EIS Volume 4 – Engineering Feasibility Study Compendium, Appendix E contains water treatment residuals calculations used to predict the anticipated number of residual truck loads per day.</p>
GF	Trucking Air Pollution	<p>The emissions associated with trucking residuals to a remote disposal location result in an emission increase that is less than <i>de minimis</i> levels</p>	EIS Volume 1 - Section 4.4.3.2

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Topic / Sub-topic	Summary	Response	See EIS section
		<p>and, therefore, present no short or long term impact on air quality.</p> <p><b>Will trucks use alternate fuels?</b></p> <p>Washington Aqueduct will require their hauling contractors to use low-sulfur diesel fuels. The use of low sulfur fuel will reduce hazardous air pollutant emissions from diesel fuels. Alternate fuels, such as natural gas, although now being used in commuter buses in urban environments are not typically being used in vehicles as large as 20-ton trucks. As the market for alternate fuel trucks develops, their use will be considered in developing hauling contracts at that time.</p> <p><b>Will newer trucks be used to reduce emissions?</b></p> <p>Regardless of age, all trucks will be required to be maintained in a safe operating condition, consistent with the vehicle inspection and emission standards established for the State in which they are registered.</p> <p><b>Will trucks be retrofitted to reduce air quality impacts?</b></p> <p>Washington Aqueduct is committed to use low sulfur fuels as stated above. However, trucks similar to those anticipated to be used by residuals hauling contractors are not currently required by regulators to be retrofitted to reduce air quality impacts. The immediate implementation of vehicle modification requirements could increase hauling costs or restrict the number of haulers willing to bid on the hauling contract. In order to avoid this outcome, additional truck modifications, beyond the use of low sulfur fuels, will be considered as modified vehicles become more common in the marketplace.</p> <p><b>Monitor fuel used by trucks:</b></p> <p>Washington Aqueduct does not plan to monitor the individual fuel usage of each residual disposal contractor's truck. The competitive bid nature of the residuals disposal contract should provide sufficient incentive to minimize excess fuel consumption.</p> <p><b>How can 132 trucks per day not have an impact on the environment?</b></p> <p>The environmental impact of trucking is analyzed in Section 4 of Volume 1 of the EIS. As explained in topics GA and GE, 132 trucks is not an accurate characterization of the transportation impacts of this project.</p>	<p>EIS Volume 1 – Section 7.2.1</p> <p>EIS Volume 1 – Section 7.2.1</p>

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Topic / Sub-topic	Summary	Response	See EIS section
		<p><b>You did not adequately consider the air impacts of the preferred alternative:</b></p> <p>The impacts of the proposed action (or environmentally preferred alternative) are presented and then analyzed in Sections 3 and 4, respectively, of the EIS. The air emission sources of the proposed action (Alternative E) are truck traffic, operation of residuals processing facility, and construction of the residuals facility.</p> <p>Construction emissions for the dewatering facilities are deemed to be less significant than the emissions associated with the operation of the facility. The impacts of the proposed action are negligible with respect to the <i>de minimis</i> threshold limits, and the construction emissions are less than that of operating the facility via any alternative, the construction emissions are negligible. Therefore, it is appropriate not to quantify emissions from construction activities associated with all alternatives. Needs work – also need to reference Section 4 EIS for additional information text regarding the relative number of diesel engine hour/miles during construction versus operation and the relative acres of earthwork disturbed with the proposed action versus the monofill option.</p> <p>Regional air quality and air pollution in the Metropolitan Washington Interstate Air Quality Planning Region is regulated by U.S. Environmental Protection Agency (USEPA) using two sets of criteria: National Ambient Air Quality Standards (NAAQS) and General Conformity. These two regulations are described in general below:</p> <p><u>National Ambient Air Quality Standards</u></p> <p>The Clean Air Act (CAA) and its associated 1977 and 1990 amendments established NAAQS for six criteria pollutants: lead, carbon monoxide (CO), nitrogen dioxide, sulfur dioxide, particulate matter (PM) and ozone. The NAAQS established primary standards at concentrations that protect human health and secondary standards that protect the public welfare—particularly vegetation, livestock, building materials, and other environmental elements. These standards are periodically reviewed and revised, if necessary, as is currently being done for particulate matter and ozone.</p> <p>The Washington, DC area is in attainment for lead, CO, nitrogen dioxide particulate matter (PM10) and sulfur dioxide and in non-attainment for</p>	<p>EIS Volume 1 – Sections 3.3 and 4.4</p> <p>EIS Volume 1 – Section 4.4</p>

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Topic / Sub-topic	Summary	Response	See EIS section
		<p>ozone and fine particulate matter (PM2.5). The 1990 amendments to the CAA categorized the nation's non-attainment ozone areas into five groups, based on increasing severity of exceedance of the standard: marginal, moderate, serious, severe, and extreme. The DC area is designated a severe nonattainment for the 1-hr ozone NAAQS and moderate nonattainment for the 8-hour ozone NAAQS.</p> <p>An interstate planning area was developed called the National Capital Interstate Air Quality Control Region (AQCR) to reduce ozone concentrations and bring the Washington, DC area into compliance. To bring the AQCR into compliance the states and district included in this area are tasked with developing a plan by November 17, 2005. The implementation plan must outline specific measures to be taken and a means of monitoring progress toward attainment. State Implementation Plans (SIPs) prepared by the State of Maryland, the Commonwealth of Virginia, and the District of Columbia include control strategies to reduce volatile organic compounds and nitrogen oxides that contribute to the formation of ozone.</p> <p>On April 5, 2005, designations under the NAAQS for fine particle pollution or PM2.5 became effective. Fine particles are those less than 2.5 micrometers in diameter which are unhealthy to breathe. The Washington, DC-MD-VA metropolitan area has been designated as non-attainment for fine particulate matter.</p> <p>States designated as PM2.5 nonattainment areas must submit plans that outline how they will meet the PM<sub>2.5</sub> standards. These plans are due to EPA by April 5, 2008.</p> <p><u>General Conformity</u></p> <p>Section 176(c) of the 1990 CAA amendments requires that federal actions conform to applicable state implementation plans, ensuring that the actions do not interfere with strategies developed for NAAQS attainment. The USACE Washington Aqueduct management alternatives for water treatment plant residuals are considered a federal action. This action must not interfere with the National Capital Interstate AQCR's established plans to attain ozone ambient air quality standard compliance. If the total direct and indirect emissions calculated for each non-attainment area pollutant are below the <i>de minimis</i> threshold levels established in 40 CFR 93.153 of the State Implementation Plan (SIP), the project is presumed by EPA to conform to the regional implementation plans. As <i>de minimus</i> threshold</p>	

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Topic / Sub-topic	Summary	Response	See EIS section
		<p>limits have not yet been established for PM2.5 non-attainment areas, EPA guides the action to compare calculated emissions to the PM10 <i>de minimus</i> threshold level established in 40 CFR 93.153.</p> <p>Conformity is a planning process used to determine if a federal action will prevent state from meeting air quality plan. The mobile sources, such as truck traffic, associated with an action are evaluated in a conformity analysis by calculating the average emissions for the worst case year. In the case of the USACE Washington Aqueduct management alternatives for water treatment residuals, a conservative average of 20 truck trips by a 10 ton truck is used to calculate annual emissions from mobile sources. The average number of water treatment residuals loads per a day is 8 trucks as stated in the EIS. The conservative estimate of average trucks used to calculate emissions from trucks for the conformity analysis can provide an allowance for average water treatment residuals and the few construction related vehicles and Forebay residuals (if included in the project).</p> <p><u>Emissions Inventory for Washington Aqueduct</u></p> <p>The most recent air emissions inventory for the Dalecarlia Reservoir and Little Falls Raw Water Pump Station as filed with the EPA (Table 3-2, Section 3 of the EIS) shows that the existing facilities are a minor source of air emissions, contributing less than 1 ton per year for all pollutants, with the exception of volatile organic compounds, which contribute less than 3 tons per year. Ozone is not listed in this table because it is not emitted, but rather forms in the atmosphere as a reaction between nitrogen oxides (NOx), volatile organic compounds (VOCs), and sunlight. Consequently, two of its primary precursors are measured: nitrogen oxides and volatile organic compounds.</p> <p>The <i>de minimis</i> threshold levels for the region's SIP, is listed in 40 CFR 93.153. If the total air emissions (the sum of all individual sources) of an alternative are less than the <i>de minimis</i> level, that alternative is presumed by EPA to be in conformance with the state implementation plans and will not adversely affect plans to bring the region into compliance with the NAAQS. A <i>de minimus</i> threshold for PM2.5 has not yet been established. Until such action occurs, EPA recommends application of the PM10 <i>de minimus</i> threshold to PM2.5 total air emission calculations.</p> <p>State Implementation Plans (SIPs) prepared by the State of Maryland, the Commonwealth of Virginia, and the District of Columbia include control</p>	

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Topic / Sub-topic	Summary	Response	See EIS section
		<p>strategies to reduce volatile organic compounds and nitrogen oxides that contribute to the formation of ozone.</p> <p><u>Air Quality Significance Criteria</u></p> <p>The project is presumed to conform to the regional implementation plans if the potential increase in emissions is less than the <i>de minimis</i> thresholds.</p> <p>By using these criteria, the following levels of impacts were identified:</p> <p><i>No Impact</i></p> <p>If implementation of the action causes an increase in air emissions that is less than the <i>de minimis</i> threshold levels, the alternative is considered to have no impact.</p> <p><i>No Significant Impact</i></p> <p>If implementation of the action causes an increase in air emissions that is greater than the <i>de minimis</i> threshold levels but has been accommodated with the existing regional implementation plan, the action has no significant impact.</p> <p><i>Significant Impact</i></p> <p>A significant impact occurs if the potential increase in emissions is above the <i>de minimis</i> thresholds and requires a demonstration of regional significance to determine whether an adverse air quality impact would result. Significant impacts may be reduced to no significant level by implementing appropriate mitigation measures.</p> <p>Impact Evaluation by Alternative and Option</p> <p>The Washington Aqueduct must determine if their proposed actions exceed <i>de minimis</i> thresholds listed in the regulations (40 CFR 93.153) and specific to the pollutant attainment status of the National Capital Interstate Air Quality Control Region (AQCR). If they do, they will have to take additional steps to demonstrate whether the proposed emissions are regionally significant in order to assure conformance with the region's</p>	

TABLE 1  
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Topic / Sub-topic	Summary	Response	See EIS section
		<p>SIP.</p> <p>To make this comparison, a conservative air pollution scenario was developed to represent the largest emission factors from the components of the various alternatives. Two scenarios were developed: one for Alternative A, which includes a monofill, and one for Alternatives B, C and E, which all involve the construction of residuals thickening and dewatering facilities and rely upon trucking dewatered residuals to a remote dewatering site. The location of the dewatering site and the direction that the trucks take on the highways is somewhat different for Alternatives B and E versus Alternative C, however, the net impact on air pollution is similar. Stationary facilities and mobile sources (such as trucks) are included in these estimates. Alternative E represents the air quality emission estimates for the proposed action.</p> <p>The primary sources of air emissions include exhaust from trucks used to transport residuals to onsite or offsite disposal areas, use of natural gas for dewatering building heating, and fugitive dust from the onsite monofill. Not all of these activities are included in each of the action alternatives.</p> <p>The potential air emissions from this alternative are quantified in Table 4-2 of the EIS. The results are that VOC is at a maximum of 4.3 tons/year, Carbon Monoxide at a maximum of 21.4 tons/year, Nitrogen Oxides at a maximum of 20.5 tons/year, Particulate Matter from diesel fueled trucks at a 0.21 and 0.17 tons/year for PM10 and PM2.5 respectively, Particulate Matter from low-sulfur diesel fueled trucks at 0.18 and 0.14 tons/year for PM10 and PM2.5 respectively, and Sulfur Dioxides at a maximum of 0.41 tons/year. Constructing and operation of Alternatives E would increase air emissions to a degree less than the <i>de minimis</i> threshold levels and therefore present no short term, long-term, direct, or indirect adverse impacts to the affected resources.</p> <p>A full set of air quality emissions calculations and model output is provided in Appendix 2A. These calculations provide the basis for the air quality analysis for each proposed alternative as presented in Section 4 of the EIS. The analysis of the air emission impacts from each facility involved in the operations of the alternatives – Northwest or East Dalecarlia Processing Site, Trucking Routes, Georgetown Reservoir, Dalecarlia Sedimentation Basins, and Monofill.</p> <p>Supplemental analysis has been provided since the completion of the</p>	

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Topic / Sub-topic	Summary	Response	See EIS section
		<p>draft EIS to address the recent establishment of the Metro WA area as non-attainment for PM2.5. Currently there is no established threshold <i>de minimus</i> level for PM2.5 in the SIP. EPA has recommended that the <i>de minimus</i> level for PM10 in the SIP be applied to PM2.5 emission calculations for determination of compliance. The supplemental analysis conducted quantifies the emissions from mobile sources (i.e. trucks) for the criteria air pollutants. It also allows one to quantify the air emission effects of using different types of fuels for vehicle classes. The AP42 analysis presented in the draft EIS provided conservative estimates for all criteria pollutants, but was not designed to calculate particulate matter emissions from truck trips. This new analysis, MOBILE6.2 provides air emissions estimates for all criteria pollutants, and does not change the basic conclusion of the previous analysis (i.e., air emissions remain below <i>de minimus</i> threshold levels for all (attainment and non-attainment) areas and there is, therefore, no impact and the action is inconsequential.</p> <p>The results from the new analysis, MOBILE6.2 is provided in Section 4 along with the existing AP42 analysis.</p> <p>MOBILE 6.2 is a computer model approved by EPA for SIP development and transportation conformity analysis to estimate emissions of various air pollutants typically emitted from vehicle exhaust, brake and tire wear.</p> <p>Also see topic BJ for a discussion of dust and dirt control during the construction phase of the project.</p>	
GG	Trucking Safety	<p>The truck routes studied in the EIS generally conform to the proposed District of Columbia truck traffic management plan. The proposed number of residuals trucks does not negatively impact the level of service of the proposed routes.</p> <p>The selection criteria for residuals contract haulers would include their safety track record. Washington Aqueduct places high priority on operating a safe water treatment facility. This philosophy would extend to a residuals contract hauling operation.</p> <p>The non-toxicity of the water treatment residuals is discussed in the EIS. Based on the testing conducted in 1995, and again in 2004, the water treatment residuals are suitable to apply on agricultural land disposal sites. A similar practice is used by two other large regional water treatment utilities also using Potomac River water (Fairfax Water and</p>	<p>EIS Volume 1 - Section 4.11 – Transportation</p> <p>EIS Volume 1 – Table 4-11</p>



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Topic / Sub-topic	Summary	Response	See EIS section
		<p>WSSC). Safe operation of the residuals hauling trucks associated with some of the proposed alternatives would be addressed by considering the safety track record of each hauler during the contracting phase and monitoring their safety record throughout their contract period. Safe hauling of residuals would be a high priority to the Washington Aqueduct if a hauling alternative were selected.</p> <p>Minimal dust is typically associated with the dewatering and transport of alum residuals because the aluminum hydroxide present in the residuals limits the dryness of the dewatered cake to about 30-percent solids (or 70-percent water). Alum residuals also tend to retain their moisture more than topsoil or other types of residuals. As a result, they do not dry out quickly while being transported. Based on these factors, dust issues associated with the transport of alum residuals are anticipated to be minimal.</p> <p><b>Safety implications of 132 trucks per day through MD/DC residential neighborhoods:</b></p> <p>As explained in topics GA and GE, 132 trucks is not an accurate characterization of the transportation impacts of this project. Regardless the proposed residuals hauling activities are not expected to negatively impact neighborhood safety. Residuals will be hauled in a lawful, considerate manner. An average of 8 truck loads per day and a maximum of 25 truck loads per day of residuals are anticipated to be hauled on the routes designated in the EIS. This number of additional trucks is not anticipated to create a negative safety impact given that the proposed haul routes are designated haul routes that currently handle many more trucks per day than proposed by Washington Aqueduct.</p> <p>There are schools in the vicinity of each of the truck routes. Because each route is an established truck route, and the level of service will not be decreased as a result of the proposed residuals hauling operation, existing traffic controls and child safety measures currently in place would be no less effective than they are currently.</p> <p><b>Additional traffic accidents anticipated with more trucks on the road:</b></p> <p>The accident rates on the designated haul routes are not anticipated to increase as a result of the proposed residuals hauling activities. The accident rate for a given road or intersections typically influenced by</p>	

TABLE 1  
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Topic / Sub-topic	Summary	Response	See EIS section
		<p>several factors, only one of which is the volume of vehicles. Other factors related to the design of the road or intersection frequently has equal or greater impact on accident rates. In addition, the relative increase in vehicles planned as a result of the residuals hauling project is quite small.</p>	
GH	Trucking Vibration	<p>The average number of additional residuals trucks proposed for this project represents a small fraction of the current number of trucks traveling many of the proposed haul routes. The routes were selected because they are designed to function as truck routes. Any current home foundation issues associated with existing traffic loads on the proposed routes are not anticipated to be worsened as a result of the additional trucks proposed for this project.</p>	EIS Volume 1 - Section 4.11 - Transportation
GI	Trucking Costs	<p>Residuals hauling costs were estimated based on hauling costs provided by neighboring water and wastewater treatment utilities of similar size. Non-cost issues, such as noise, light, and pollution were assessed based on their environmental impact rather than by assigning them a dollar value.</p> <p><b>Seriously mischaracterized the true cost of trucking:</b></p> <p>Concern was raised about whether the draft EIS contained all costs associated with the trucking alternative. A comparison was made to previous Washington Aqueduct residuals reports that estimated residuals hauling and disposal costs using different methods.</p> <p>The residuals hauling and disposal costs included in Table 4-7 of the draft EIS were based on similar residuals hauling bid costs received from neighboring utilities. Following receipt of the draft EIS comments, these costs were verified through discussions with residuals hauling contractors responsible for disposing of water treatment residuals in the Washington metropolitan area. The \$30.00 per wet ton hauling and disposal cost assumed for dewatered residuals in the DEIS was confirmed as appropriate.</p> <p>The present value of the residuals hauling and disposal cost was changed in the final EIS to add an additional measure of conservatism to the haul distance anticipated to be required by the end of the 20 year planning period and ensure consistency with the haul distance assumed in the air section of the EIS. A round trip residuals disposal haul distance of 150 miles has now been used as the basis of both the air emissions</p>	<p>EIS Volume 1- Section 4 throughout</p> <p>EIS Volume 1 – Tables 4-7 and 4-8</p>

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Topic / Sub-topic	Summary	Response	See EIS section
		<p>calculations (no change from the draft EIS) and the present value of the residuals hauling cost. This change increases the present value of residuals hauling alternatives B or E from \$76,200,000.00 to \$82,100,000.00. This change does not change the relative cost rankings of the dewater and monofill, dewater and truck from Dalecarlia WTP, or dewatering and truck from Blue Plains alternatives. All alternatives except the "No Action" include trucking costs. Alternatives B, C, and E would require similar hauling distances.</p> <p><b>Include the cost of trucking forever (versus 20 years):</b></p> <p>Some members of the public commented that truck hauling costs should be assumed to continue forever in the present value analysis. The approach taken in the EIS (i.e., to define capital and annual operating costs for the planning period and calculate associated present value costs for that period) is more typical for NEPA analyses and treats all alternatives in the same manner.</p> <p><b>Use Combined Trucking and Operating Costs to Screen Alternatives:</b></p> <p>One of the public comments suggested modifying the cost screening criteria from capital cost to the sum of 20 years of operating costs plus the capital cost of an alternative. This approach to cost evaluations is not typical and does not address the primary cost issue of concern to the wholesale customers (capital cost) Combined capital and operating costs were evaluated in the EIS by comparing the present value of each alternative. This method of comparing combined capital and operating costs is more traditional and does not unduly weight the operating portion of the cost. The two cost comparison methods used in the EIS confirm that dewatering and hauling residuals to a permitted offsite disposal site is a cost effective alternative when compared with the other alternatives.</p>	
GJ	Existing Dalecarlia Parkway vehicle/truck volumes	<p><b>What are the current vehicle/truck volumes on Dalecarlia Parkway?</b></p> <p>Vehicle and truck counts were conducted on Dalecarlia Parkway on June 16, 2004 and June 17, 2004. This data is summarized in the EIS Volume 2B – Appendices. A summary of the data is provided below:</p>	EIS Volume - 2B - Appendices, Transportation Section

TABLE 1  
Comments and Responses by Topic

Topic / Sub-topic	Summary	Response	See EIS section									
		<table border="1"> <thead> <tr> <th>Date</th> <th>Total Vehicles per day</th> <th>Trucks per day (3 or more axles)</th> </tr> </thead> <tbody> <tr> <td>6/16/2004</td> <td>15,013</td> <td>70</td> </tr> <tr> <td>6/17/2004</td> <td>15,789</td> <td>99</td> </tr> </tbody> </table>	Date	Total Vehicles per day	Trucks per day (3 or more axles)	6/16/2004	15,013	70	6/17/2004	15,789	99	
Date	Total Vehicles per day	Trucks per day (3 or more axles)										
6/16/2004	15,013	70										
6/17/2004	15,789	99										
GK	Trucking Hours	<p><b>DEIS has conflicting information on trucking hours, MNCPPC letter recommends trucking between 9:30 AM and 4:00PM</b></p> <p>The EIS has been revised to reflect consistent information regarding trucking hours.</p> <p>Trucking operations will meet all requirements established for the use of trucking routes. Washington Aqueduct anticipates that the dewatering facility will typically be staffed between the hours of 7:00 AM and 7:00 PM. These are the hours during which trucks will typically be loaded.</p> <p>The analysis in the EIS shows that none of the feasible routes (B,D, E,F&amp;G (with permit), and H) would have traffic flow or congestion impacts due to the action's trucking operation that would reduce the level of service with the exception of route A. Trucking will be allowed on Route A only between 9:30 AM and 3:00 PM.</p> <p>Because trucking restrictions could have the effect of increased contract costs, further restrictions will not be included, however, it is logical to expect that a trucking company would minimize costs by concentrating trucking during optimal periods. Considering the relatively small amount of residuals generated on a daily basis and the hours of operation, there is sufficient opportunity for a company to truck mainly during the off peak periods</p> <p>Also see response to topics GA and GD.</p>	EIS Volume 1 – Sections 4.11 and 7.2									

HA	Barge, preference	<p>Barging residuals via the Potomac River (not C&amp;O Canal) to Blue Plains is one of the alternatives (Alternative 6) that was considered and screened in May 2004 following the Scoping Meeting.</p> <p>The C&amp;O canal is a National Historic Landmark and is therefore not suitable for accepting barge traffic. Alternative 6 was found inconsistent with screening criteria, and is therefore not carried forward for detailed evaluation in the EIS.</p> <p>Constructing an above grade conveyor or buried pipeline to a Potomac River barge loading station located within land controlled by the National Park Service would create a significant impact on the park and would not receive approval from the park service.</p>	<p>EIS Volume 1 -TABLE 3-9: May 2004 Alternatives Screening Results Summary</p> <p>EIS Volume 4 - Engineering Feasibility Study Compendium Section 3.1.2- Alternative 6: Thicken Water Treatment Residuals at Dalecarlia WTP, Then Transport by Barge to Blue Plains AWWTP</p>
IA	Preference	Comment or preference noted.	EIS Volume 1 – Section 5, Public Involvement
IB	Useful Life of Alternatives	The 20-year life defined for the monofill is consistent with the planning period adopted for the EIS as a whole. It is also consistent with planning horizons used in engineering feasibility studies.	EIS Volume 4 – Engineering Feasibility Study, Section 3.
JA	River Discharge	The return of silt and water treatment residuals back to the river after they are removed is generally prohibited by the Clean Water Act. Given the long track record of EPA requiring water treatment utilities throughout the country to remove their residuals from the rivers, from which they withdraw water, it is unlikely that this regulation could be successfully challenged.	

JB	Discharge during spawning season	<p>The NPDES Permit was issued on March 14, 2003. The Federal Facilities Compliance Agreement was signed on June 12, 2003. The spawning season is defined in the NPDES permit as February 15 through June 30. There have been no discharges to the Potomac River during the spawning season since the issuance of the NPDES Permit in March 2003. Discharges were made on the following dates:</p> <p><u>From Dalecarlia</u>  7/1/03; 7/7/03; 7/14/03; 7/28/03; 10/10/03; 10/20/03; 10/21/03; 1/12/04; 1/16/04; 1/20/04; 2/8/04; 7/14/04; 7/24/04; 7/25/04; 8/2/04; 8/8/04; 10/27/04; 11/30/04; 1/26/05; 2/1/05; 2/7/05; 2/10/05; 7/4/2005; 7/10/2005; 7/12/2005; 7/18/2005</p> <p><u>From Georgetown</u>  7/20/04; 8/10/04; 8/19/04; 12/2/04; 2/2/05; 7/12/2005</p> <p>In accordance with the NPDES permit, before each discharge, Washington Aqueduct has made notifications to the agencies described in the permit. There is no general public notification because the discharge itself does not put the public in any personal danger and the exact timing is dependent on operational conditions at the treatment plants.</p>	
KA	Impure water quality, raw water intake	<p>Converting the existing surface intake on the Potomac River to a well-based intake was considered in the Engineering Feasibility Study Compendium and subsequently screened out from consideration. Options that involve reconfiguring the existing raw water intake structures are evaluated in the Engineering Feasibility Study Compendium. In general, these options are found to be inconsistent with the screening criteria for the project.</p>	EIS Volume 4 – Engineering Feasibility Study Compendium, Section 4.5 and Table 3-7
KB	Monitoring water quality and safety	<p>Residuals deposited in the Forebay portion of the Dalecarlia Reservoir and water treatment residuals produced in the sedimentation basin of the Dalecarlia WTP were tested to determine their potential to leach toxic substances if applied to land of landfilled. Residuals samples were also tested directly to quantify the concentration of key regulatory constituents. The results of this testing indicated that the residuals are non-toxic and suitable for land application on agricultural land or landfilling.</p>	EIS Volume 1 - Section 4-17: Public Health
KC	Residuals quality	<p>The water treatment residuals produced by the Washington Aqueduct are considered non-toxic by regulatory agencies responsible for overseeing their potential application to agricultural land of deposition in a landfill. Specific toxicity testing was performed on the Washington Aqueduct residuals as part of this DEIS effort. These tests confirmed that the residuals are non-toxic. These results agreed with similar previous testing conducted in the mid-1990's.</p>	EIS Volume 1 - Section 4-17: Public Health

KD	Health Impacts of Diesel Truck Traffic	<p>The 1990 Clean Air Act amendments require that federal actions conform to applicable State Implementation Plans (SIPs) to ensure that the action will not interfere with strategies developed for attainment of National Ambient Air Quality Standards (NAAQS). Federal actions conform to the SIPs if the action's emissions do not exceed the <i>de minimis</i> threshold for the criteria pollutants. These actions are termed "inconsequential" by the CAA regulations. The <i>de minimus</i> threshold for each criteria pollutant represents a small fraction of the state inventory of emission from all air sources in state. All alternatives evaluated in the EIS produce emission estimates below <i>de minimus</i> for all criteria pollutants. Therefore, these emissions will not cause or contribute to an exceedance of NAAQS. The NAAQS are developed and periodically reviewed based on human health and welfare criteria and include factors such as frequency of asthma cases, respiratory impairment, and health of children and elderly with adequate margin of safety.</p> <p>Our decision making as an agency will be based on the regulations that apply to the area in which our proposed action will take place. Our hauling operations will always comply with applicable air quality regulations.</p>	EIS Volume 1 – Sections 3.3 and 4.4
LA	Suggested processes	Alternate treatment processes that minimize or change the form of the residuals (such as MIEEX, ultrafiltration, etc.) were evaluated in the Engineering Feasibility Study Compendium. These alternatives were screened out based on concerns related to unproven technology, cost, and compliance with the FFCA schedule.	EIS Volume 4 – Engineering Feasibility Study Compendium Section 3.2.2 – review of Public Alternative P99.
MA	EPA mandate	EPA is not obligated to perform NEPA analysis for a permit enforcement action. The obligation to perform this analysis belongs with the Federal Agency being regulated by EPA, Washington Aqueduct in this case. In cases where the water treatment utility is not operated by a federal agency, a NEPA analysis is not required.	
MB	FOIA requests	See transcripts for responses. Washington Aqueduct has provided written responses to FOIA request letters. These responses are available in the administrative record.	Administrative record.
MC	Conflict of interest	CH2MHill filed a disclosure statement in accordance with 40 CFR Section 1506.5(c) which is included in the project's administrative record. The Baltimore District Corps of Engineers has no basis to believe that CH2MHill has a financial or other interest in the outcome of this project that would cause a conflict of interest. Any future procurement to implement this project will be in accordance with applicable statutory, regulatory and policy provisions regarding conflict of interest.	Administrative record.
MD	Agency Recommendations on DEIS	<p>Changes were made as requested by US Department of Interior (Document 122).</p> <p>Response to Montgomery County Council letter (Document contained in</p>	<p>EIS Volume 1 - Section 3.4.1 Dwarf Wedge Mussel</p> <p>EIS Volume 1 - Section 3.5.1 Terrestrial</p>

		<p>Appendix Volume 2A..</p> <p>Response to the individual comments contained within the June 2, 2005 letter from the United States Senate (document 118) are discussed in the applicable topics summarized herein.</p> <p>Responses to the individual comments contained within the May 10, 2005 letter from the Council of the District of Columbia (document 119) and the June 1, 2005 letter from the Montgomery County Planning Board (document 125) are discussed in the applicable topics summarized herein.</p> <p>Responses to the individual comments contained within the June 2, 2005 Commonwealth of Virginia letter (document 124) are discussed in the applicable topics summarized herein and below:</p> <ul style="list-style-type: none"> <li>• Open Burning and Dust Control: The referenced requirements will be followed.</li> <li>• All impacts to historical structures and archeological resources will be considered as required.</li> <li>• George Washington Memorial Parkway: See topic DH.</li> <li>• The requested life cycle cost analysis will be performed as part of the residuals facility design. Residuals processing equipment will be tested as necessary during the design phase of the project to confirm performance. Consideration will also be given to previous testing performed on Dalecarlia WTP residuals.</li> <li>• Costs were verified as part of the final EIS preparation effort. Costs will continue to be evaluated throughout the design phase to ensure that ongoing fluctuations in materials and labor cost factors are properly considered.</li> </ul> <p>Responses to the individual comments contained within the July 5, 2005 District of Columbia Department of Health letter (document 157) are discussed in the applicable topics summarized herein. A traffic study was completed for the EIS, the results of which are contained within EIS Sections 3.10 and 4.11 and Appendix Volume 2B. The air quality analysis conducted for the DEIS was expanded to include additional emissions information on truck traffic. The results of this analysis are presented in EIS Section 4.4. The model data from which this data was derived is provided in Appendix Volume 2A.</p> <p>Responses to the individual comments contained within the June 27, 2005 EPA letter (document 182) are discussed in the applicable topics summarized herein. In addition, several suggestions designed to enhance the clarity of the EIS were also made. These suggestions were implemented where practical.</p>	<p>Special Status</p> <p>EIS Volume 1 – Section 3.10 Transportation</p> <p>EIS Volume 1 - Section 4.5.3 Impact Evaluation by Alternative and Option</p> <p>EIS Volume 1 - Section 4.6.3.1 Hay’s Spring amphipod</p> <p>EIS Volume 1- Section 4.6.3.2 Alternative B</p> <p>EIS Volume 1- Section 4.6.3.3 Impact to Special Status Species</p> <p>EIS Volume 1- 4.6.3.4 Special Status Species</p> <p>EIS Volume 1- Section 4.11 Transportation</p>
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NA	NEPA Process Understanding	<p>The intent of the public meetings held in September and November 2004 was to inform the public of the status of the alternative evaluation process as it was proceeding, as well as, inform the public of how this information would be considered within the context of the NEPA process.</p>	EIS Volume 1 - Section 5.0 Public Involvement
NB	Screening criteria and Scoping Meeting	<p>The screening criteria were developed prior to the January 28, 2004 Scoping Meeting. Public input on the screening criteria was received during the Scoping Period, which ran from January 12, 2004 through February 11, 2004. The alternatives were screened by the Washington Aqueduct EIS project team.</p> <p>A summary of the initial alternative screening results was presented in the Engineering Feasibility Study dated May 2004. This document was placed on the Washington Aqueduct project website following its completion. The Engineering Feasibility Study was subsequently updated to include additional alternatives submitted by the public. This updated document is provided as Volume 4 of the EIS.</p> <p>The EIS evaluates a total of 4 alternatives plus the no action alternative. This number is not unusually low when compared with other EIS's and therefore, is not considered an indication that the screening criteria should be revised.</p> <p>The screening criteria include cost because the proposed action must be economically feasible to the wholesale customers.</p>	<p>EIS Volume 1 - Section 5.0 Public Involvement and EIS Volume 4 - Engineering Feasibility Study Compendium, Section 2.2 Development of Alternatives</p> <p>EIS Volume 4 - Engineering Feasibility Study (original and updated Engineering Feasibility Study Compendium – Volume 4 of the EIS)</p>
NC	Communication	<p>Prior to each public meeting related to the residual project, starting with the January 28, 2004 Scoping Meeting, the public was notified of meeting, date, time, and location. This was typically accomplished by placing display ads in the Washington Post and at least one local paper. A notice was also placed in the Federal Register prior to the Scoping Meeting. The alternative screening approach and alternative screening results were also presented during subsequent public meetings at the request of the public. The public meetings held between September and October 2004 included a progressive discussion of the environmental evaluation of new public and screened alternatives. Following the DOPAA public meeting held on May 26, 2004, three additional opportunities for public input were provided on September 7, 2004, September 28, 2004, and November 16, 2004. Two additional opportunities for the public to submit alternatives were also provided in September/October, 2004 and January/February, 2005.</p> <p>Numerous public comments were received regarding the shortcomings of the forum chosen for the September 7, 2004 project update meeting. The larger than anticipated number of attendees rendered the selected format ineffective. A different format was chosen for subsequent meetings to</p>	EIS Section 5.0 - Public Involvement.

		address this issue.	
ND	NEPA Process	<p>The NEPA process has been followed to the letter and the intent of the law. Additionally, several public meetings, not required by NEPA, have been held in order to address the high level of public interest in this project.</p> <p>See topic FC for a discussion of the FFCA schedule and its role in the screening process.</p> <p>In the mid-1970's and the mid-1990's, in response to EPA intentions to issue an NPDES permit that would have caused Washington Aqueduct to recover and dewater and dispose of the water treatment residuals in lieu of returning them to the Potomac River, Washington Aqueduct investigated methods of accomplishing that. In both of those instances, coordination with the government of the District of Columbia resulted in a declaration that the Washington Aqueduct water treatment residuals would not be permitted to be sent to the Blue Plains advanced waster water treatment plant. In both of those instances a concept to recover and dewater the residuals at Dalecarlia for trucking to an off-site location for disposal was developed. EPA in both occasions made decisions that did not require Washington Aqueduct to complete action on the residuals process at that time.</p> <p>In the mid-1990's Washington Aqueduct also was directed by EPA to dredge the Dalecarlia Reservoir. That process was a very high intensity but of limited duration. It did generate many loads of sediment that were removed by truck. To do it safely and with the minimum effect on the surrounding neighborhoods, Washington Aqueduct worked very closely with the neighborhood groups and local officials. It was from that experience that Washington Aqueduct became well aware of the sensitivity of trucking to the surrounding neighborhoods on the traffic routes. Therefore when the current NPDES permit and FFCA were issued in the first half of 2003, Washington Aqueduct decided to take a completely fresh look at alternatives that might be employed to comply with the permit and the FFCA.</p> <p>Washington Aqueduct had no preconceived notion of what alternative it preferred when it started the NEPA evaluation of residuals alternatives in late 2003.</p> <p>What came out of the screening process and the follow-on extended public comment periods were ideas that had never been analyzed in connection with the two previous studies. Specifically, the monofill option was presented as a means to alleviate trucking for at least a 20 year period. Other ideas to transfer the residuals in a liquid form to off site processing locations such as McMillan and other water treatment plants and sites where no current dewatering facility existed were also</p>	

		considered.	
NE	Limited number of alternatives evaluated in EIS	A total of 160 residuals alternatives plus eight treatment options were evaluated for this project. A total of 135 of these alternatives, plus eight options were submitted by the public during three public involvement opportunities. The alternatives were screened by a set of criteria developed to reflect the project's purpose and need, as described in the Notice of Intent published in the Federal Register on January 12, 2004. It is not anticipated that additional alternatives exist that could be implemented within the Aqueduct's FFCA compliance deadline and meet the remaining screening criteria.	Section 2.0 Selection of Proposed Action and Alternatives contains a summary of the process followed to identify and screen feasible alternatives.  Volume 4 Engineering Feasibility Study Compendium contains the complete description of the screening process and results
NF	Institutional constraints screening criteria	<p>The many piping alternatives are dependent upon the willingness of the receiving facility at the other end of the pipe, whether to process and dispose of the residuals, or simply to supply space for the Washington Aqueduct to do so. None of the agencies involved, whether it be the DC WASA, WSSC, Fairfax Water, the Central Intelligence Agency (CIA), the United States Navy, the City of Rockville, or the Federal Highway Administration, are able or willing to provide processing capacity or facility space. Neither the United States Army Corps of Engineers, the United States Army, nor the Washington Aqueduct has any authority over any of the agencies.</p> <p>Trucking is still involved in some degree with each piping alternative. It is worth noting that the David Taylor facility at Carderock is surrounded by the Clara Barton Parkway and MacArthur Boulevard, both of which have truck weight limitations. Despite how close the Capital Beltway may appear to be, processing residuals on the Carderock site would have still required dewatered residuals to be hauled through residential neighborhoods serviced by 2-lane subdivision roads no more suitable for truck traffic than similar haul routes proposed for residuals Alternative E.</p> <p>This suggested alternative also included speculation that a direct Beltway interchange could be constructed. Creating a direct Beltway interchange is a remote, costly and time prohibitive possibility. It would require basic changes in legislation and policies of other federal and local agencies, such as the National Park Service, which would be likely to result in protracted debate and possible litigation of their own.</p> <p>Given the highly developed nature of the area, finding a new site at the discharge end of a residuals pipeline would involve years of acquisition time and without sufficient land for disposal on-site would still mean the same amount of trucking away from that site. Furthermore, our analysis for Alternative C, while specific to that particular route, illustrates generally</p>	EIS Volume 4 - Engineering Feasibility Study Compendium, Section 3.

		that pipelines are not without significant environmental and cost impacts.	
NG	Restart NEPA process	The NEPA process has been carefully and dutifully followed. The EIS process included six public meetings and at least 20 consultations or conversations with interested individuals, groups, or agencies. Through this process 160 alternatives and 8 options were identified; 135 of these alternatives and all options were identified by the public. These alternatives span a range of approaches for the management and conveyance or water treatment residuals. These were screened to determine feasible options by a set of criteria that reflect the project's purpose and need.	EIS Section 2.0 Selection of Proposed Action and Alternatives contains a summary of the process followed to identify and screen feasible alternatives.  EIS Section 5.0 - Public Involvement.  EIS Volume 4 - Engineering Feasibility Study Compendium, Section 3.
NH	Regional approach to NEPA	A regional approach has been taken for the evaluation and decision making process: the National Capital Planning Commission is a Cooperating Agency. NCPC provides overall planning guidance for federal land and buildings in the National Capital Region, which includes the District of Columbia; Prince George's and Montgomery Counties in Maryland; and Arlington, Fairfax, Loudoun and Prince William Counties in Virginia. Federal, state (VA and MD) and local agencies were all consulted during the development of the DEIS and the impact analysis is both regional and site specific, depending on the requirements of the particular subject area.  Regionalization specific to water and wastewater is discussed in topic DJ.	EIS Sections 3.0 and 4.0 for descriptions of existing conditions and impact evaluation.  EIS Section 5.0 for public involvement and Agency Consultation
OA	Alternate coagulants – continued river discharge	The current NPDES permit does not allow the Washington Aqueduct to switch to an alternate coagulant and continue to discharge residuals to the river. The intent of the NPDES permit is to remove essentially all residuals from the river.  Washington Aqueduct is planning to evaluate the use of alternate coagulants, such as polyaluminum chloride, in the future. This coagulant has the potential to reduce the quantity of residuals requiring processing and disposal. However, additional testing is required to confirm that it does not reduce the quality of the drinking water in other areas, such as organics removal, lead corrosion, etc. EPA approval would also be required before an alternate coagulant could be used.	EIS Volume 4 - Engineering Feasibility Study Compendium, Section 4.3 for a discussion of alternate coagulants that could be used to reduce the volume of residuals that requires disposal.
PA	Residuals Handling in Other Metropolitan Areas	Other large cities dispose of their water treatment residuals using a variety of methods including land application, sewer disposal, landfilling, etc. Neighboring water treatment utilities, such as Fairfax Water and WSSC dispose of their residuals by land application, quarry disposal, and discharge to the sewer.	
PB	Residuals studies throughout the world	To make sure we were evaluating alternatives within the appropriate regulatory constraints and geographical issues, the Aqueduct's residuals management evaluation is based largely on the experience of water	EIS Volume 4 – Engineering Feasibility Study Compendium, Section 2.0 for a discussion of

		<p>providers in the domestic United States in general and in the National Capital Region in particular. Approaches that work in one part of the country (or world) are not necessarily applicable to the Aqueduct's situation. For example, sewers are used with some frequency throughout the country for residuals disposal, but that is not possible here for a variety of reasons detailed in the evaluation.</p> <p>Wherever in the world water treatment residuals are being generated, management approaches must all address the common questions of collection, processing, conveyance, and final disposal. The alternatives identified and evaluated in this project represented a range of different approaches for resolving each type of issue.</p>	the proposed action and alternatives.
QA	Public Residuals Alternatives	160 residuals alternatives and eight options are evaluated in the Engineering Feasibility Study Compendium. Approximately 135 of these alternatives were identified by the public.	EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3.2 Alternatives P-1 through P-27
QB	Environmental assessment	<p>The analysis in the EIS includes detailed descriptions of the existing conditions for each of the five alternatives. This includes land use, noise, air quality, aquatic resources, biological (terrestrial) resources, cultural resources, hazardous, toxic and radioactive substances, soils, geology, and groundwater, infrastructure, transportation, visual aesthetics, socioeconomics including environmental justice. Note that these existing conditions include the natural as well as the human environment (pre-historical resources, historical resources, the built environment and demographics, employment and economic analysis.) The potential for each alternative to impact these existing conditions, both short term and long term was carefully evaluated and is described in the EIS. The impact of the proposed action in concert with one or more other past, present, or reasonably foreseeable future actions or projects was also evaluated.</p> <p>In EPA's detailed comments on the DEIS dated June 27, 2005, EPA disagrees with the conclusion in Section 4.5.3.4 that implementation of Alternative D, the No Action Alternative, would have no significant impact on Aquatic Resources. EPA asserts that implementation of the NPDES permit will "reduce pollutant loading to the Potomac River...". Based on previous studies, the Washington Aqueduct observes that its historical practice of returning residuals solids removed during the water treatment process to the Potomac River does not result in significant detrimental impact. However, elimination of this practice, in compliance with the NPDES permit, will meet the CWA requirement that water utilities use the best available technology.</p> <p>See topics GA, GD, GF and GI for additional information regarding trucking.</p>	EIS Volume 1 – Section 3 for a discussion of existing conditions, Section 4 for a discussion of potential impacts, Section 7 for a discussion of cumulative impacts and mitigation.

QC	Northwest (alternate B) versus east (alternate E) residuals processing sites	The Aqueduct recognizes that each of the alternatives under evaluation necessitates developing infrastructure in an urban setting, characterized by natural and man-made resources. All alternatives to meet this federally mandated action will carry some degree of impact. Please see section 6 for a discussion of the Aqueduct's rationale for recommending Alternative E as the proposed action.	EIS Volume 1 – Section 6 for a description of the selection of the preferred alternative.
QD	Residuals processing site near Beltway versus Dalecarlia WTP site	See responses to topics DL, NE, and NF.	EIS Volume 4 – Engineering Feasibility Study Compendium, Section 3.



Document 1

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DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS

-----X

IN RE: Intent to Prepare a Draft :  
Environmental Impact Statement :  
for a Proposed Water Treatment :  
Residuals Management Process for :  
the Washington Aqueduct, :  
Washington, D.C. :

-----X

Wednesday, January 28, 2004

Washington, D.C.

Oral statements and questions of interested parties were taken at St. Patrick s Episcopal Church and day School at 4700 Whitehaven Parkway, N.W., Washington, D.C. 20007 from 7:00 p.m. to 9:00 p.m.

Comments from different individuals are separated by the following symbol " \*\*\*\*\* "

Names of respondents have been removed from the transcript to protect individuals privacy.

Anita B. Glover & Associates, Ltd.  
10521 West Drive  
Fairfax, Virginia 22030  
(703) 591-3004



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P R O C E E D I N G S

\* \* \* \* \*

: Considering the

**1-1-GA**

alternatives, I hope very much that the Washington Aqueduct Division and the Army Corps of Engineers take into consideration the environmental impact that trucking would have on the communities involved, their near neighbors.

\* \* \* \* \*

: I have a few comments or

**1-2-EB**

suggestions, One on the processes for dealing with the sediments. I would suggest that you include an examination of the so-called plasma technology. You have listed various other conventional ways of dealing with the processing of the residuals. Here is a potential high tech way of reducing the -- at least the volume of the sediments and, thus, making it more easy to get rid of them.

As you know, I am adamantly opposed to

**1-3-GA,  
GD**

trucking for environmental -- because of the potential environmental impact on residential neighborhoods. But, if you do go to trucking, I think that you should include a provision for hardening the Little Falls Parkway so

1 that it could handle trucks carrying the sediments. That  
2 way you are taking the trucks out of the residential  
3 areas of the Palisades. You would then go down  
4 Dalecarlia and out Massachusetts and over River Road and  
5 out to the beltway or wherever you re going.

6 And I think that would be a very useful  
7 step in making any truck program compatible with the  
8 needs of the Palisades neighborhood.

9 I also would hope that we would get  
10 assessments of the costs of the various approaches and  
11 their potential -- and some estimates on the potential  
12 impact on the rates that water users will pay in the  
13 District and elsewhere. I gather that you do contemplate  
14 doing that after going through the briefing process.

**1-4-AA**

15 I don t know how much emphasis I would  
16 place on the barge in the C&O Canal. I offered that more  
17 or less as a joke. I m somewhat startled to see it down  
18 as a serious alternative at this point.

**1-5-HA**

19 Any rate, there is a potential there for  
20 taking these sediments, dehydrated sediments, back up to  
21 the upper stretches of Montgomery County where you have  
22 sod farms and so on and replenishing the soil. I gather  
23 that this sediment that is of good quality that one

**1-6-EA**

1 alternative is to mix it with the sewer sludge and  
2 produce a form of fertilizer. That calls for a kind of  
3 cooperation with WUSA and so on that I m not sure is  
4 possible. At any rate, I offer that as an idea.

5 I had one other thought. That s it for  
6 now. I ll try to put it all down on paper, but, any  
7 rate, there are some thoughts. Thank you very much for  
8 listening.

9 (Pause.)

10 : One other thought --  
11 again.

12 One other thought is I hope that when we  
13 consider Georgetown Reservoir we do not contemplate  
14 trucking the sediments out of there back up to some  
15 central disposal point, perhaps the Aqueduct on MacArthur  
16 Boulevard. That would really raise hob with the  
17 neighborhood to have the trucks passing up MacArthur  
18 Boulevard and up through the central heart of the  
19 Palisades. And I gather you do -- there are possible  
20 alternatives of piping it inside your other big pipes and  
21 I would just urge that you do that.

22 Thank you.

23

1-7-GA

Anita B. Glover & Associates, Ltd.  
10521 West Drive  
Fairfax, Virginia 22030  
(703) 591-3004

## 1 CERTIFICATE OF NOTARY PUBLIC

2 I, Linda M. Kia, a Certified Verbatim  
3 Court Reporter and a Notary Public in and for the  
4 District of Columbia, the officer before whom the  
5 foregoing deposition was taken, do hereby certify that  
6 the witness whose testimony appears in the foregoing  
7 deposition was duly sworn by me; that the testimony of  
8 said witness was taken by me by Stenomask and thereafter  
9 reduced to typewriting under my direction; that said  
10 deposition is a true record of the testimony given by  
11 said witness to the best of my knowledge and ability;  
12 that I am neither counsel for, related to, nor employed  
13 by any of the parties to the action in which this  
14 deposition was taken; and further, that I am not a  
15 relative or employee of any attorney or counsel employed  
16 by the parties thereto; nor financially or otherwise  
17 interested in the outcome of the action.

18

19

20

---

LINDA M. KIA, CVR  
Notary Public in and for  
the District of Columbia

21

22

My Commission Expires:  
23 March 31, 2008

Anita B. Glover & Associates, Ltd.  
10521 West Drive  
Fairfax, Virginia 22030  
(703) 591-3004



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DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS

-----X

IN RE: Washington Aqueduct Open House for :  
the Draft Environmental Impact :  
Statement for a Proposed Water :  
Treatment Residuals Management Process :

-----X

Tuesday, September 7, 2004

Washington, D.C.

Oral statements and questions of interested parties were  
taken at the Dalecarlia Water Treatment Facility, 5900  
MacArthur Boulevard, N.W., Washington, D.C. 20007 from  
6:30 p.m. to 9:00 p.m.

Comments from different individuals are separated by the  
following symbol \*\*\*\*\*

Names of respondents have been removed from the transcript  
to protect individuals privacy.

LMK-211-04

1 C O M M E N T S / Q U E S T I O N S

2 \* \* \* \* \*

2-1-CA

3 [redacted]: I'm [redacted],  
 4 President of Spring Valley West Homeowners' Association.  
 5 That is consistent of 157 family homes, single home  
 6 dwelling. And we are opposed to the landfill, dump.  
 7 Thank you.

8 \* \* \* \* \*

2-2-NB, NC

9 [redacted]: My name is [redacted]  
 10 And my comment is regarding your screening process. I  
 11 have looked at the material, which has been posted on the  
 12 internet and it's very useful and it's very  
 13 comprehensive; however, it presents a screening process  
 14 of something like 20 or 25 alternatives and simply says  
 15 that a certain number of them met the screening and  
 16 certain didn't. It doesn't say who decided that they met  
 17 the screen.

18 And I want to be sure I understood -- so,  
 19 therefore, the information that's on the web about what  
 20 the alternatives are and which ones met the screen, why  
 21 certain ones met the screen and certain didn't was not  
 22 clear to me. I know that there is a matrix that shows by  
 23 a whole series of criteria which ones met it, but it

1 really doesn't -- it's not clear about why certain checks  
 2 were in certain boxes and who made the decision about  
 3 which box to check.

4                   So my comment is that I think you should  
 5 make that information available. Otherwise, the  
 6 information you're got on the internet is very easy to  
 7 access. It is very well done. It's very helpful. But  
 8 it's not clear how alternatives were chosen to meet  
 9 certain screening criterion or not. And that may be a  
 10 technically complex subject, but still think that's key,  
 11 because my reading of it was that many of the criterion  
 12 met the screening. That's all. That's my comment.

13                   \* \* \* \* \*

14                   [REDACTED]: I think it's dishonest to  
 15 show pictures of the trees without saying what season the  
 16 pictures were taken because the buffering is going to be  
 17 a lot less in winter. The pictures, having lived in the  
 18 neighborhood, I'm quite sure the ones taken along  
 19 Dalecarlia Parkway were taken in summer when the  
 20 vegetation is very thick. So the EIS is terribly  
 21 misleading to people who might be within sight of the  
 22 monofill because maybe we'll see it in the winter while  
 23 they might not see it -- see it as much in the spring or

2-3-BA



1 summer. It's really a serious flaw in the EIS.

2 \* \* \* \* \*

3 [redacted]: I'm [redacted] My  
4 wife and I live in Spring Valley and studied Alternative  
5 A and we both are vigorously opposed to it as  
6 environmentally unsound and an unnecessary intrusion on  
7 the residential quality of the neighborhoods abutting the  
8 aqueduct. Thank you.

2-4-CA

9 \* \* \* \* \*

10 [redacted]: I would like to -- very  
11 much would like to approve C. I think C does far less  
12 damage to our houses than any other.

2-5-DA

13 \* \* \* \* \*

14 [redacted]: I think the option number  
15 three is by far and away the best solution to the  
16 problem. The areas under which the project this project  
17 would take place are filled with a great lot of dense  
18 population, including older people and lots of children.  
19 And, given that situation, it seems to me that it would  
20 be far better to truck this waste material some place  
21 else and not build anything which would be 80 feet tall  
22 in the neighborhood.

2-6-DA

23 \* \* \* \* \*

2-7-NC

1 [redacted]: I am a native  
 2 Washingtonian. I am distressed by the poor management of  
 3 this. The acoustics are terrible. I cannot hear clearly  
 4 what he is saying. Moreover, the questions of the  
 5 audience are terrible. He mentions we can go on email  
 6 and can get some information. Why couldn't that have  
 7 been printed out here for information here. Instead, we  
 8 come here and then you have to call in later on and  
 9 hopefully we can get some in sent to us. It is very,  
 10 very poorly done. I hope there will be some better way  
 11 to establish this.

12 \* \* \* \* \*

2-8-GA, GG,  
GH

13 [redacted]: I'm [redacted] from the Western  
 14 Avenue Citizens' Association. I think to add trucks to  
 15 the roads will affect the foundations of our homes and  
 16 our roads, which has been fixed by the District of  
 17 Columbia already. The Western Avenue Citizens'  
 18 Association will feel it will have to sue to protect our  
 19 property if sludge is transported by trucks. That the  
 20 trucks will present a safety concern which is not been  
 21 addressed. There are a lot of pedestrians on Western  
 22 Avenue and there have been a lot of accidents there.  
 23 These trucks will present a tremendous safety risk.

1 Thank you.

2 \* \* \* \* \*

3 [redacted]: My name is [redacted]

2-9-NC

4 This meeting arranged at the treatment plant is a  
5 disaster. I want to hear what my neighbors have to say  
6 and I want them to hear what I have to say. And the  
7 process leaves a lot to be desired. We're all standing  
8 in a big hall. I can't hear the questions and so it  
9 makes the whole proceeding useless. And I think it ought  
10 to be done again and provide for adequate facilities, not  
11 in an echoing hall where nobody can hear the questions.

12 I don't blame the Director, but somebody  
13 has lack of foresight here.

14 \* \* \* \* \*

15 [redacted]: I would like to have

2-10-NC

16 another meeting where we can all sit down in an  
17 auditorium. It's impossible to hear the questions  
18 because of the echo. We don't even understand the  
19 speaker 30 percent of the time. We have to stand. And  
20 this meeting is very unsatisfactory. Would you please  
21 hold the same type of meeting in a proper auditorium and  
22 then ask the people to line up with their questions so  
23 they can be given in an orderly way? In other words,

1 like any decent meeting. It doesn't have to be  
2 segmented, quote, unquote, just a well-run meeting,  
3 period. Thank you.

4 \* \* \* \* \*

**2-11-IA**

5 [redacted]: I favor Alternative B  
6 because it is the most equitable distribution of the  
7 costs and the exposure over the entire weight-base, not  
8 just one portion of the area.

9 \* \* \* \* \*

**2-12-CA, CB**

10 [redacted]: My name is [redacted],  
11 from Bethesda. The criteria seem to be weak. For  
12 example, we hear that the District, the Metropolitan  
13 Area, has a shortage of trees and yet you're now saying  
14 you're going to take a minimum of 30 acres of trees and  
15 possibly more. This doesn't make sense. When I asked  
16 your staff about drainage, they had no decent answers.  
17 But you will have toxic drainage from there. The Blue  
18 Plains alternative offers access by barge to transport  
19 the material so it makes it a permanent solution, not  
20 temporary. Also, be aware that many states consider this  
21 substance hazardous material.

22 \* \* \* \* \*

23 [redacted]: Well, we just wonder if they

2-13-NC

1 considered that there was an impact on the neighborhoods,  
2 because, of course, this is a meeting of 400 outraged  
3 people and we feel that they tried to make it through.  
4 Nobody had any word of this until late July and they've  
5 been working on it, obviously, for many, many months.  
6 And then -- [ ] has a question.

7 We suggest that the next meeting, which  
8 should be fairly soon, be in a local school that has a  
9 decent auditorium so you don't have 400 people standing  
10 up, a lot of whom are elderly and they're having trouble.  
11 So we think there should be another meeting very soon in  
12 which they can take the comments of the neighbors.

13 \* \* \* \* \*

2-14-BB

14 [ ]: Have you considered the fact  
15 that you're going to have a major hospital in your  
16 backyard?

17 \* \* \* \* \*

2-15-CA

18 [ ]: My statement is the  
19 monofill will go in Dalecarlia over my dead body.

20 \* \* \* \* \*

2-16-CA, FD,  
IB

21 [ ]: The landfill and the  
22 trucking are short term solutions. Piping is the only  
23 viable solution because it's long-term and it's safe and

1 it gets it out of our neighborhood. Period.

2

\* \* \* \* \*

3 [redacted]: The option of cutting  
4 down 30 acres of trees that have taken more than 30 years  
5 to grow for a short-term solution seems a little odd when  
6 by piping everything to Blue Plains, it could not only be  
7 stored there, it could be moved from there to other uses,  
8 as far in the future as we can see. Otherwise, you will  
9 ruin the air quality around here and they're going to  
10 just have to go pipe it to Blue Plains anyhow. So it  
11 doesn't provide much.

12

\* \* \* \* \*

13 [redacted]: My name is [redacted]  
14 [redacted] and I live off of MacArthur Boulevard. And I am  
15 very concerned about the trucking option, as it would  
16 endanger the children on our block, as well as pollute  
17 the air, as well as shake the foundation of our house and  
18 our neighbors' houses. And our retaining wall is already  
19 showing damage and our house is cracking from trucks that  
20 currently run up and down the streets. And we're very --  
21 I'm very in support of -- very much in support of the  
22 pipeline, as I feel like it's the most cost-effective  
23 solution over a long period of time. And that is all.

**2-17-BB,  
DA, 1B, GF**

**2-18-GB,  
DA, GF, GG,  
GH**

1

\* \* \* \* \*

2

[redacted]: I'm [redacted] I live

3

on MacArthur Boulevard. I'm against the trucking option

4

for the damage and the pollution and the danger to the

5

neighborhood. I am for a long-term permanent option,

6

such as the pipeline and would be more than happy to

7

support it, whatever means I could do. Thanks. Thanks a

8

lot.

9

\* \* \* \* \*

10

[redacted]: I just wanted to reiterate

11

the two points I made tonight. The first is that it is

12

not right to say to the people in the District who are

13

concerned about transportation and the people in Maryland

14

are concerned about the sludge shop. People in both

15

areas are extremely concerned and strongly opposed to

16

both of those alternatives. It will have a major impact

17

on our whole area, as well as the environment that is

18

somewhat preserved within that area.

19

My complaint -- my second point was to ask

20

why the Corps had not stated the maximum height for the

21

sludge dump or a maximum number of acres to be clear-cut.

22

I think the 80-foot height and the 30-foot clear-cut is

23

staggering, but at least we should know if it can be

**2-19-GA,  
DA, GG, GF**

**2-20-DA,  
GA, BA, IA,  
CA**

1 worse than that. And I believe the answer was that it  
2 was not possible to state the maximum. And I strongly  
3 object to that. Thank you very much.

4 \* \* \* \* \*

2-21-GB, HA

5 [redacted]: I have a suggestion. Why  
6 wouldn't you truck at night?

7 Another suggestion. Truck at night to the  
8 river and barge it down to the Blue Plains plant. Okay?

9 \* \* \* \* \*

2-22-DA

10 [redacted]: I was wondering what the  
11 reason is for not just going ahead and doing the Blue  
12 Plains stream-in facility. It seems to me that unless  
13 there are some tremendous reason for not doing that, that  
14 is just a no brainer given the topography of Dalecarlia  
15 Parkway; that they should use the long-term solution  
16 though it might cost more in today's dollars and just get  
17 the sludge out of here.

18 \* \* \* \* \*

2-23-CA

19 [redacted]: Hi. I'm [redacted] and  
20 I'm adamantly opposed to the monofill and I want it  
21 stopped now.

22 \* \* \* \* \*

23 [redacted]: I've looked at the three



2-24-DA

1 alternatives and two of them pose long-term environmental  
 2 problems and one poses all of the environmental problems  
 3 only during it's construction, which is moving the  
 4 material away to Blue Plains via pipeline. So, from a  
 5 resident's point of view, this is a no brainer, because  
 6 we're concerned about the long-term environment. If the  
 7 only risks are whether in the short-term it can be built  
 8 in time, that's a risk we think the Washington Aqueduct  
 9 should be willing to take because that is the one scheme  
 10 that doesn't pose long-term questions and issues for our  
 11 environment and our children. Thanks.

\* \* \* \* \*

2-25-CA, DA

13 : I am absolutely opposed to  
 14 the monofill. I think the only real solution is the  
 15 pipeline. If you look at the monofill, it's a very  
 16 short-term solution relatively speaking. Even at a  
 17 substantial cost differential, the pipeline is a better  
 18 investment for achieving the goals of moving the material  
 19 back into the Potomac.

\* \* \* \* \*

2-26-BA, CB

21 : I think it is unconscionable  
 22 to take 30 acres worth of trees, including the deer and  
 23 the foxes, and then to create -- then for the chemicals

1 to stay there and for children to be -- or anyone for  
2 that matter to be exposed to those chemicals. That's  
3 all.

4 \* \* \* \* \*

5 [redacted]: I have two things. The  
6 first is that if you go on record, there was no official  
7 announcement of a sign-up sheet to register how many  
8 people were here. So this is not reflective, the sign-up  
9 sheet does reflect the total number of people that were  
10 here.

11 My comment is on the monofill plan, it  
12 shows an outline for the monofill; however, discussions  
13 with the moderator there, he recognized that you would  
14 have to have berms and holding ponds and everything like  
15 that. I'm assuming that's going to be around a bigger  
16 parameter, so you're not showing the whole thing. And so  
17 it's a larger area than what is shown.

18 The second thing is, also on the monofill  
19 plan, it shows that this would give us 20 years to have  
20 technology catch up. So it gives you that false sense  
21 that technology is going to provide a better plan at the  
22 end of 20 years when you've completely decimated a  
23 forrest with the monofill, as well as all of the berms

2-27-CA  
IA, IB, FD

1 and the holding ponds and everything. And, yet, when I  
 2 go over to the trucking guy, I find out that the  
 3 technology that they are anticipating having at the end  
 4 of 20 years is the trucking option, which you need to --  
 5 they need to be more specific and answer questions,  
 6 anticipate questions and not give half-baked information.

7

\* \* \* \* \*

8 [redacted]: My name is [redacted]  
 9 [redacted] I live at [redacted] Yumas Street, Northwest. I am a  
 10 31-year resident of the District of Columbia and a 10-  
 11 year resident of Spring Valley. I just spoke with one of  
 12 the professional representatives here this evening who  
 13 informed me that if the monofill option is used that  
 14 there will be residuals of aluminum hydroxide. This will  
 15 be in an area that is highly congested with residents,  
 16 particularly elderly residents and next door to a  
 17 hospital and it's in an area where we, the residents,  
 18 well know we have underground munitions left over from  
 19 the Army, plus there is a network of underground springs.  
 20 That's why they call this Spring Valley. So it would be  
 21 important to know, number one, when these materials leach  
 22 out of the monofill, as they inevitably will, into the  
 23 ground, what health effects will that have on the

2-28-CA, KC,  
 NC

1 residents and the patients in the hospital. And the same  
 2 concern would be for the dust in the air in a city which  
 3 is very polluted which has a higher cancer rate than  
 4 almost anywhere in the country. I myself am a victim of  
 5 cancer. I would have to move out of the neighborhood if  
 6 this proposal were to come to pass. I would much prefer  
 7 to see a more sensible alternative that can result in the  
 8 sludge being removed to an area where it does not put any  
 9 residents at risk.

10 This is [redacted] again. I wanted to  
 11 note that despite the fact that I am active in the  
 12 neighborhood and a member of the Spring Valley West  
 13 Citizens' Association, I was totally unaware of this  
 14 proposal until approximately a week ago, which indicates  
 15 to me that the Corps of Engineers had not done an  
 16 adequate job of providing the public with notice of their  
 17 proposals and an opportunity to comment.

18 \* \* \* \* \*

19 [redacted]: This area has one of the  
 20 most valuable real estate values in practically the whole  
 21 country. If they need the money to build the pipeline,  
 22 they will be better off selling the existing land and  
 23 putting in residential areas and using that money for the

2-29-DA, AC

1 pipeline. It would be very good for the tax revenue of  
2 D.C. and it would not destroy the whole community. This  
3 landfill would destroy a whole area and it would only  
4 solve the 20-year problem.

5 \* \* \* \* \*

6 [redacted]: I think the format for  
7 this meeting was absolutely awful. Nobody could hear  
8 anything and there was no reasonable forum for any kind  
9 of discussion that anybody could participate in. And I  
10 think that very few people up until the last few weeks  
11 were even aware that this process of any kind was going  
12 on. There has been virtually no notification of the  
13 whole process and when one looks at the schedule of  
14 accomplishments that is proposed, we are very near the  
15 end of the draft EIS period and then it goes into a 60-  
16 day public comment period and there is virtually -- I'll  
17 bet you that 90 percent of the people that were here  
18 won't even know what a draft EIS and what it can do and  
19 what it can't do and how it is to be used in decision  
20 processes.

21 I think that there are a lot more people  
22 here than they anticipated and they are not prepared in  
23 any sense to deal with this. And I think that unless

2-30-FE, NC,  
NA, NB

1 they -- unless the Corps of Engineers, or whoever is  
2 dealing with this, turns around and starts over again  
3 with their outreach to the public that they are going to  
4 run into a fire storm from the people in the immediate  
5 neighborhood and the people that are going to be affected  
6 by any of the alternatives.

7                   One of my big concerns is that they had --  
8 they apparently started with 23 or 26 alternatives and  
9 virtually nobody knew about them and nothing has been  
10 published about any of these, to my knowledge or to the  
11 knowledge of anybody that I've talked to here. And that  
12 screening process of going down from 26 down to the 3  
13 alternatives that they're now talking about is -- is not  
14 -- it's not understood by anybody and nobody is going to  
15 have any confidence in it.

16                   And I think a process -- a whole program  
17 like this really depends on getting good public  
18 participation and good public -- good public acceptance.  
19 They may not agree with everything, but at least they  
20 know something has to be done and they want a voice in  
21 looking at the alternatives. And that has not been  
22 provided yet. And I believe that that's going to cause  
23 the Corps of Engineers a lot of trouble until they get

1 that sorted out.

2                   And one of the ways of starting to get  
3 that sorted out is to have a public meeting that is  
4 meaningful in a facility that is conducive to answering  
5 questions and starting at time zero and telling people  
6 what they're doing and why they're doing it and what the  
7 process is and how they came to the -- why they came to  
8 the schedule and the decision that they reached. They  
9 haven't done any of that and I would hope they would  
10 consider that as they go ahead.

11

\* \* \* \* \*

12                   [REDACTED]: I don't know exactly what  
13 I'm allowed to say, but I am very much against the dump  
14 being developed on the ground adjacent to Dalecarlia  
15 Parkway. I think it was a tremendous environmental  
16 effect and it's not the highest and best use for the  
17 ground. The people, such as myself, who bought homes in  
18 the area didn't expect industrial uses to be developed  
19 around our homes and I think it's a short-term fix and  
20 something that should be corrected now, not later. And I  
21 think we're not comparing apples and apples as far as the  
22 cost. If what is driving this is cost, we're looking at  
23 the cost to develop a dump that is only going to

2-31-CA, IA,  
GB, IB

1 alleviate the problem for 20 years. And comparing that  
2 to the pipeline and the other alternatives, we're not  
3 comparing apples and apples because you're not capturing  
4 the additional cost after 20 years to come up with a new  
5 solution after the dump is full. That's all I have to  
6 say.

7 I believe Alternative B is the best  
8 solution because after 20 years and after filling up the  
9 dump adjacent to our homes on Dalecarlia Parkway and  
10 after destroying all of that acreage of green space we're  
11 going to have to revert to Alternative B anyway. We're  
12 going to have to convert the whole program to Alternative  
13 B where we're trucking the waste out of the area instead  
14 of concentrating it. I think that they ought to just  
15 bite the bullet now and go to the Alternative B as a  
16 solution to this problem.

17 \* \* \* \* \*

18 [redacted]: My first comment --  
19 question as to whether EPA conducted a NEPA process  
20 considering these impacts when they made their decision  
21 as to what conditions they would put on the permit that  
22 they had issued and whether or not, if EPA did not do  
23 that, whether they need to go through that type of

2-32-MA, IA,  
GA, DA, FD



1 process now or if they should be a cooperating agency  
2 with the Corps of Engineers and have their permit be one  
3 of the options or conditions on that permit be subject to  
4 consideration of options for that permit as part of this  
5 NEPA process.

6 As far as the three alternatives that the  
7 Corps of Engineers is considering, I'm concerned that any  
8 alternative that has a 20-year maximum life is not really  
9 a useful or not a viable or patentable alternative  
10 because by the time we're finished with construction and  
11 implementation of that project we would still be where we  
12 are now 20 years from now, still looking for another  
13 permanent solution.

14 As far as Alternative B, which would be to  
15 truck everything out, I think the neighborhood impacts of  
16 10 to 20 trucks of that size a day going through  
17 relatively neighborhood-type streets would be a  
18 significant impact on the community and also on the local  
19 roads as far as maintenance on the road and all of the  
20 impacts of the truck traffic.

21 Alternative C seems to be the one that has  
22 the least impact on the community as far as piping it to  
23 Blue Plains. It certainly has the least impact on the

1 neighborhoods of Northwest Washington and nearby  
 2 Maryland. Understanding the cost is somewhat more, but  
 3 from what I heard today the cost did not sound  
 4 significantly more than the cost of the alternatives that  
 5 had much greater impacts. Thanks.

6 \* \* \* \* \*

7 [redacted]: I am [redacted]. I  
 8 live off of [redacted] Street here in Washington, D.C. I just  
 9 wanted to register my significant concern over this  
 10 proposed monofill alternative for moving -- for the  
 11 deposit of the sediment from the river. I think it has  
 12 been described in somewhat benign terms, but I can't help  
 13 feeling that this is an industrial by-product that may  
 14 have significant long-term health consequences for the  
 15 neighborhood that lives near it.

16 I don't believe that I have seen in the  
 17 materials presented on the floor here or in any  
 18 discussions with folks from the Army Corps of Engineers  
 19 that addresses the issue of whether sediment that they  
 20 are depositing in the monofill is, in fact, likely to be  
 21 free of so many of the chemical by-products of  
 22 agricultural run-off of the various fertilizers and anti-  
 23 weed control products and various other chemicals used in

2-33-CA, KB,  
 IA

1 agriculture significantly up river.

2                   They describe -- I suppose it's fair to  
3 say that the monofill will be quite unsightly and they  
4 used the tree screen as a way to mollify people's  
5 thinking on the subject. However, it is my belief and,  
6 in fact, we may be doing what we did with the World War I  
7 munitions, which is to put a significant potential  
8 environmentally hazardous by-product in close proximity  
9 to a heavily developed dense city populated residential  
10 location. And until I hear a strong response to that  
11 concern, I am definitely not in favor of this  
12 alternative.

13                   \* \* \* \* \*

14                   [redacted]: Hi. This is [redacted]  
15 [redacted]. And I have been at this meeting since 6:30 this  
16 evening. At one point, because of the size of crowd, it  
17 was decided that Mr. Jacobus would go into the hall, the  
18 seated area, the little auditorium, and was to address  
19 questions that we might have and as of 8:10 this evening,  
20 he has not gone there. It is 8:35 and he has not ever  
21 come into that room. And I just wanted to point out that  
22 quite a few citizens were sitting in there waiting for  
23 him to come in and address our concerns and they've got

**2-34-NC,  
DA, IB**

1 nothing left and the room is now empty at 8:35.

2                   So I want to say that this was a public  
3 relations fiasco. I feel as a citizen of Montgomery  
4 County that essentially the Washington Aqueduct has  
5 thumbed its nose at the citizens, it's neighbors, by  
6 saying essentially that they don't care about the  
7 process, that they don't care about involving us at an  
8 earlier stage in the game when there are more  
9 alternatives on the table, some of which we might  
10 actually like or may have some contribution to make.

11                   In essence, I feel shut out of the  
12 process. Except for the Blue Plains alternative, I don't  
13 really want to comment on either of the trucking  
14 alternative or the monofill alternative. I think that  
15 they are both untenable, short-term solutions. To me  
16 they seem to be 19th century solutions to a 21st century  
17 problem. I think we need to be looking more into the  
18 future in terms of recycling and addressing our waste  
19 products in a long-term fashion. Thank you for this  
20 opportunity to speak.

21

\* \* \* \* \*

22                   : My name is

23  and I had two questions, basically, for the

2-35-GE, GD

1 process. One is in the August 12, 2004, letter from the  
 2 Department of the Army, on the residuals processing  
 3 alternatives, Alternative A noted that on average six on-  
 4 site truck trips per day six days per week would be  
 5 required to transport residuals. And Alternative B, that  
 6 an estimated average number of trucks for handling the  
 7 residuals is approximately ten per day during the five-  
 8 day work week. I wanted to know why the discrepancy  
 9 between 36 truck trips and 50 truck trips on a weekly  
 10 basis.

11 My second question was in the truck route  
 12 alternative site proposal there was absolutely no  
 13 inclusion of the Clara Barton Parkway as an access point  
 14 to 495 and, clearly, the most direct route from the water  
 15 treatment plant would be down MacArthur to Arizona and  
 16 onto Clara Barton Parkway. If it's a matter of getting  
 17 an exemption or some change in designation for parkway  
 18 usage, it know that certainly needs to be considered.

19 \* \* \* \* \*

20 [redacted]: Hello. This is [redacted]  
 21 [redacted] I live in Spring Valley. And my concerns are  
 22 two-old. One, that we're looking at a short-term  
 23 solution and, obviously, this is something that is a

2-36-CA, IB,  
GB, GD

1 long-term problem, a long-term issue that we need to be  
2 finding an environmentally-friendly solution for, getting  
3 rid of the residuals.

4                   The short-term solution, especially the  
5 monofill, I think is the worst possible solution of the  
6 three that we have been faced with here, for one reason,  
7 obviously, an environmental standpoint and, just from an  
8 aesthetic standpoint, having an 80-foot high, eight-story  
9 high monofill the size of 30 football fields is not  
10 something that I want in my front or back yard.

11                   Secondly, from a traffic standpoint it  
12 seems to also be the worst possible solution, and not a  
13 solution at all. You have six trucks a day that are  
14 continually and constantly going down the same route.

15                   Whereas, in the alternative that is  
16 allowing the material and the residuals to be trucked  
17 out, you would not only be able to properly disseminate  
18 the residuals across large areas, you would also have  
19 less traffic burden due to the fact that you would have  
20 more routes.

21                   I also don't under the fact that you can't  
22 have a more direct route out, which is the route down  
23 Arizona and down the Canal area toward Clara Barton.

1 Obviously, that is something that needs to be looked  
2 into. But it definitely offers more traffic solutions.

3                   Lastly and finally, it's just the fact  
4 that we need to really be thinking more in long-term  
5 environmentally friendly solutions. In the short-term we  
6 know that there are problems and it's something that  
7 we're going to have to deal with, but let's not destroy  
8 our neighborhood in the process. Thanks.

9                   \* \* \* \* \*

10                   [redacted]: Hi. I'm [redacted] I'm  
11 on the Spring Valley Board of Directors. And one of my  
12 concerns, there are many, but the short-term solution --  
13 I mean, 20 years from now, what is going to happen?  
14 We're going to need to address the situation all over  
15 again. The other thing is living in Spring Valley we've  
16 already dealt with the Corps of Engineers, the arsenic  
17 and the munitions. And my understanding is the monofill  
18 is going to be built on an area that has munitions in it  
19 and they are yet to be discovered. So this is even more  
20 problematic than has been publicized.

21                   \* \* \* \* \*

22                   [redacted]: My name is [redacted] and I  
23 would like to express my opposition to the landfill. A

2-37-FD, CA,  
IB

2-38-CA, BA,  
GB

1 couple of points, we say this is a short-term solution,  
2 which is somewhat true. The problem is once you have  
3 created this thing, it's going to be a long-term landmark  
4 and an eyesore for the community and possibly a health  
5 hazard.

6 The trucking option, I would be in favor  
7 of.

8 \* \* \* \* \*

2-39-CA, IB

9 [redacted]: One of the factors  
10 driving the decision is cost. And from the cost  
11 estimates that I've seen, the landfill seems to be the  
12 cheapest one. I wonder if the cost of the landfill takes  
13 into account that this is a temporary solution and in 15  
14 year's time they going to have to do another project.  
15 So, on a short-term basis, a landfill may be the cheapest  
16 one, the least costly alternative, but on a long-term  
17 basis, the fact that it has to be done twice once the  
18 landfill gets filled up may drive the cost up so that it  
19 becomes actually the most expensive alternative, as  
20 opposed to the other three. Thank you.

21 \* \* \* \* \*

22 [redacted]: My name is [redacted]  
23 and I'm hoping that we could resolve this in a way that



2-40-DA

1 we don't have to do the same thing twice. And so,  
 2 hopefully, we could go to Alternative C which seems to be  
 3 the most reasonable way to not create a new problem by  
 4 trying to solve another problem. And maybe we could just  
 5 do a financial study and see what it would take to get  
 6 this set up and get it done in a way that will be of  
 7 long-term positive results. So my button would read vote  
 8 for C and forget A and B. All right, thank you.

9

\* \* \* \* \*

2-41-DA, CA

10 (The following are handwritten comments  
 11 provided by [redacted] to the Stenographer.)

12 [redacted]: 9/7 Comments.

13 Alternative C is the best alternative as it is already a  
 14 processing facility and away from residential areas and  
 15 drinking water supply.

16 Please do not proceed with the monofill.  
 17 It is too close to a public water supply and may have air  
 18 quality issues, it could end up back in the water. Also,  
 19 the sheer enormous size is very disturbing and unsightly  
 20 to the Maryland residents with absolutely no cover from  
 21 the view of the monofill. It should not be built in this  
 22 area.

23 [redacted] Chalfont

1 Place, Bethesda, Maryland 20816, .

2

\* \* \* \* \*

3

(The meeting ended at 9:00 p.m.)

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CERTIFICATE OF REPORTER

I, Linda M. Kia, the Stenomask Reporter who was duly sworn to well and truly report the foregoing proceedings, do hereby certify that they are true and correct to the best of my knowledge and ability; and that I have no interest in said proceedings, financial or otherwise, nor through relationship with any of the parties in interest or their counsel.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 2004.

\_\_\_\_\_  
Linda M. Kia  
Certified Verbatim Reporter



-----Original Message-----

**From:**

**Sent:** Sunday, September 12, 2004 10:50 AM

**Subject:** Re: Follow-up to Washington Aqueduct's September 7 Public Meeting

Thank you for responding to the concerns of those who attended the meeting at the Washington Aqueduct. I do have two questions that may have been raised by others but have not been addressed.

1) Is there another thickening agent (floculent) that would meet EPA guidelines for flushing into the Potomac River?

3-1-OA

2) How do other metropolitan areas handle the disposal of water treatment residuals?

3-2-PA



**From:**

**Sent:** Tuesday, September 21, 2004 4:23 PM

**To:** Peterson, Michael C

**Subject:**

<http://www.environmental-expert.com/technology/orica/SAWaterAUSOzwater00a.pdf>

Dear Mr. Jacobus,  
Dear Mr. Peterson,

thank you for your presentation the other night and we look forward to the next one.

in response to your letter inviting the affected neighbors to provide suggestions i am going to try. the city of Adelaide, Australia appears to be going forward with a system that does not generate residuals, i have attached the link below. Rather this design calls for the following( please note this is direct from their publication):

· Treatment process - preferred process train is Magnetic Ion Exchange Process (MIEX®), microfiltration (immersed) and GAC filtration (in existing sand filters) utilizing the existing infrastructure to the optimum degree

4-1-LA

Of note is the innovative treatment process combination which is unique and which represents the future direction for water treatment.

- MIEX® - this process will remove the majority of DOC which is the major problem - causing parameter in Adelaide's source water
- Microfiltration - MF will efficiently remove almost all particulates, including Cryptosporidium and Giardia
- GAC filtration - with a much reduced organic load, will remove taste and odour, synthetic organic chemicals (SOC's) and generally 'polish' the water

This process train has many advantages:

- no chemicals are dosed into the water being treated (fluoride and chlorine will be added in low doses prior to distribution);
- following on, no solid residuals (sludge) or dissolved residuals (aluminium, disinfection

by-products, monomers) are formed. There are reject streams from the MIEX® process, and the microfiltration units and GAC will generate backwash streams but these are relatively minor; and

- it can be retrofitted into the existing infrastructure more readily than other process combinations evaluated.

In the opinion of SA Water the process 'train' discussed which is essentially chemical free, residual free and environmentally friendly is the future direction for water treatment.

**KEY WORDS**

water, organics, retrofit, MIEX®, microfiltration, ozone, GAC

could this be an viable alternative? was it considered?

thank you in advance

The information transmitted is intended only for the addressee shown above. Any design information (calculations, drawings, etc.) included in this transmission or any attachments is/are intended for the sole purpose agreed upon with Morrison Architects, PLLC. If this information is to be used for any other purpose or transmitted to any other persons, prior consent must be received from Morrison Architects





**From:**  
**Sent:** Wednesday, September 22, 2004 3:46 PM  
**To:** Peterson, Michael C WAD

**Subject:** residuals

Dear Mr. Peterson,

5-1-OA

Continuing my research into alternatives that might be added to or considered in addition to the three present schemes, could you please advise if other coagulants were considered which as a result might reduce the residuals to a degree that the rejected disposal alternatives, or other disposal means such as using the wastewater system might be completely viable? as well it seems they reduced their overall operating costs

For example attached please find another interesting link that notes a water treatment plant in Cleveland switched from alum as a coagulant to another which as a result produces, at a reduced cost, ONE THIRD of the sludge or residuals. therefore if the trucking option was considered it would theoretically reduce the trucks by a third.

They switched to CAT-FLOC liquid cationic as a coagulant. was this considered by the aqueduct. Some excerpts

"Alum-Related Problems

Alum was the only coagulant aid used during the first year and a half of operation at the water plant. Alum was added continuously to the rapid-mix tanks at a dose of 18 mg/L. Several inefficiencies and cost concerns associated with alum use led to investigations and selection of a polymer coagulant product. Alum-related problems included

\* high sludge generation with a low 6.8 percent sludge solids content,"

and after switching

"Enhanced Plant Performance

Sludge Reduction. The water plant has been producing only one third as much sludge since the new coagulant was introduced (down from 186,000 gallons per month to 50,000 gallons per month). Sludge reduction also cut in half the number of times that sludge hauling trucks from the county's wastewater treatment plant had to remove waste."

Thanks for your time



Peterson, Michael C WAD

From: WWW [www@wfpub.usace.army.mil]  
 Sent: Saturday, September 25, 2004 1:45 PM  
 To: Peterson, Michael C  
 Cc: Schultz, Paula  
 Subject: Comments on Proposed Water Treatment Residuals Management Process

6-1-BB

September 25, 2004 Mr. Thomas P. Jacobus Mr. Michael Peterson Your September 17 letter says that you will accept ideas for additional alternatives to be screened. Many people have been surprised that you have failed to include partial or total relocation among your 26 alternatives. Please consider, as an alternative for the current alternatives for the Water Treatment Residuals Management Project, the relocation of (1) some of, and (2) all of, the water treatment and sludge disposal facilities and functions to other sites. Your self-selected criteria have apparently excluded these alternatives. Nevertheless, this the public is entitled to know what such obvious alternatives would entail. Whether or not you recommend relocation or consider it too expensive compared with the temporary sludge dump, I believe it must at least be considered. Thank you,

Name  
 Agency  
 E-Mail  
 Address  
 Telephone  
 Number  
 Please Contact ContactRequested



Peterson, Michael C WAD

From: WWW [www@wfpub.usace.army.mil]  
 Sent: Saturday, September 25, 2004 2:39 PM  
 To: Peterson, Michael C  
 Cc: Schultz, Paula  
 Subject: Comments on Proposed Water Treatment Residuals Management Process

7-1-CC

Specific  
Comments

September 25, 2004 Dear Mr. Jacobus: At the September 7 meeting, you said that it was not POSSIBLE to calculate the maximum height of the proposed sludge dump or the maximum acreage to be clearcut. That seemed incredible; do you simply want a blank check? Does your answer mean, for example, that the actual height might be 90', or 100', or even more? Similarly, what does a 30-acre

Name

Agency

E-Mail

Address

Telephone

Number

Please

Contact

ContactRequested



Edits to this verbatim transcript by Patricia A. Gamby, Environmental Engineer, Washington Aqueduct are indicated as "<<"

1

1 DEPARTMENT OF THE ARMY  
2 CORPS OF ENGINEERS  
3 -----X  
4 IN RE: Washington Aqueduct Open House for :  
5 the Draft Environmental Impact :  
6 Statement for a Proposed Water :  
7 Treatment Residuals Management Process :  
8 -----X

9 Tuesday, September 28, 2004  
10 Washington, D.C.  
11 Public Comment and Question/Answer Session and Technical  
12 Presentation on Alternatives Identification and Screening  
13 Process public meeting was held at Sibley Memorial  
14 Hospital, Ernst Auditorium, 5255 Loughboro Road, N.W.,  
15 Washington, D.C. 20016 from 6:30 p.m. to 10:15 p.m.

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LMK-226-04



## 1 P R O C E E D I N G S

2 MR. JACOBUS: Ladies and gentlemen, thank  
3 you for coming out on a rainy night. We're glad you're  
4 here. I'm Tom Jacobus.

5 Before we begin our program here this  
6 evening, we have several people I would like recognize,  
7 some elected officials and some of their staff members.

8 First of all, Councilman Howard Denis is  
9 here from Montgomery County representing District 1.

10 Staying in Montgomery County, we have a  
11 representative of Council President, Steve Silverman, who  
12 is Peggy Fitzgerald, there.

13 And representing Congressman Chris Van  
14 Hollen is Joan Climan.

15 And Dean Lazeroff is here representing  
16 Senator Paul Sarbanes.

17 And Dr. Gail Street is here representing  
18 Senator Barbara Mikulski.

19 Have I missed any representatives for --  
20 in the State of Maryland or Montgomery County? Okay.

21 For the District of Columbia this evening  
22 here we have Penny McDonald here this evening. Penny is  
23 the chief of staff for Kathy Patterson, who is Ward

1 Three.

2 Not here at the moment, because I haven't  
3 seen her, but should be joining us shortly, will be June  
4 Phillips who is staff to Carol Schwartz in her capacity  
5 as Chair of the District of Columbia Council of --  
6 Committee on Environment and Public Works.

7 So I believe those are the elected and  
8 officials represented the elected officials who are here  
9 this evening. So we're very glad that they could come  
10 out and be with the rest of you here to be with us this  
11 evening.

12 If anyone did not pick up an agenda on the  
13 way in and would like one, please raise your hand and one  
14 of our folks will get one to you if you would like one.

15 Good. Thank you.

16 Also, out in the lobby, at the last  
17 meeting and in other meetings we've, we've collected a  
18 lot of names and addresses of people who would like to be  
19 on a direct mailing as a part of these proceedings. If  
20 you have already -- If you got a letter from us that had  
21 your full name and address and it didn't say dear  
22 neighbor, then you're on our list and in our database.

23 If you got a dear neighbor letter and

1 would like to get a personal letter in the future or  
2 don't have either and just here because you're  
3 interested, please leave your name and address out in the  
4 lobby. We'll be happy to add you to that database for  
5 future notifications we make to the public.

6                   This meeting tonight is basically the  
7 reverse of the meeting the other night. This is not us  
8 telling you about our project. This is you asserting  
9 your concerns and any questions to us.

10                   But I think it will be useful if you will  
11 allow us to take a very few minutes at the beginning of  
12 the process to go through a few elements of the project,  
13 to tell you a little bit about the National Environmental  
14 Policy Act and how we allow its provisions to shape our  
15 screening process and our scoping to get us where we are.

16                   We also want to tell you where we are so  
17 far in the alternative analysis of the three alternatives  
18 being evaluated to show you some of their strengths and  
19 shortcomings and how that will affect will our work  
20 forward.

21                   In addition to that, what I would like to  
22 do is -- When we met last time, it was clear to me that  
23 many of the folks who attended wished they had a chance

1 to be involved in the project and to offer more input to  
2 the project. And in the letter I sent out immediately  
3 after that meeting to everyone whose name we knew and the  
4 thousand or so neighbors, we suggested that the -- we  
5 said that we would certainly accept any additional  
6 screening alternatives -- alternatives to be screened up  
7 through 30 September.

8                   We looked at the time available to us in  
9 our schedule. And one of the things that I want to say  
10 that where we have an area where we have a disagreement  
11 between how we see ourselves going forward and how some  
12 of you may see us going forward, is we believe that we  
13 are bound to our schedule as outlined in our Federal  
14 Facilities Compliance Agreement which sets the parameters  
15 for how we will comply with the permit which allows  
16 essentially no discharge to the river.

17                   And so we are going to continue in this  
18 process bound by the permit conditions and bound by that  
19 schedule.

20                   But, within the schedule, we have looked  
21 at opportunities to move a few things around and still  
22 say in compliance. And we are offering the public an  
23 opportunity, any of you and anyone who you wish this pass

1 this to -- an extension of that period of time that -- in  
2 talking to some of the community leaders and others, to  
3 offer an alternative to extend that until the 15th of  
4 November.

5                   So we will continue to receive  
6 alternatives to be screened in accordance with our  
7 criteria up through the 15th of November and that will  
8 still give us sufficient time to work through the other  
9 elements of the process.

10                   If any of those alternatives are screened  
11 that meet the criteria and we could carry it forward, we  
12 will add those to the three already under consideration  
13 and work those through the environmental impact statement  
14 and continue to report on those as we go through.

15                   I do look forward to listening to you this  
16 evening. This is, as I said, your meeting to talk to us  
17 tonight. But, before we get to that part in a few  
18 minutes, I want to introduce the moderator for this  
19 evening, who is Mr. Jed Campbell. Jed is representing  
20 the firm of CH2M Hill. CH2M Hill is an internationally  
21 respected engineering firm who was brought on for this  
22 project as consultants for us. He has significant expert  
23 -- the whole firm has significant expertise in the water

1 treatment industry. And Jed Campbell's specific area of  
2 expertise is environmental planning.

3 He will give us a short overview of the  
4 meeting agenda and then we'll get into a couple short  
5 presentations and then we'll turn it over to you.

6 Thank you very much for coming.

7 MR. CAMPBELL: Thank you, Tom.

8 Good evening everybody. My role as the  
9 facilitator for this meeting is to really make sure that  
10 we have the best communication as possible this evening,  
11 given some of our constraints, which includes the  
12 weather, it might include some of the acoustics in this  
13 room. It might include the high level of concern that a  
14 number of people have about this project and about some  
15 of the alternatives. It also would include some of the  
16 complexity of the issues that we'll be dealing with  
17 tonight.

18 And, in fact, as Tom said in his letter  
19 that went out after our September 7th meeting, we might  
20 need a series of meetings to work through some of the --  
21 to work through the radiant issues associated with this  
22 project. We'll get as far as we can on those tonight.

23 To have the best communication possible,

1 we wanted to make sure that everybody here tonight who  
2 wants to speak gets a chance to speak. And we want to  
3 make sure that the Aqueduct and the staff members of the  
4 project all get a chance to hear the range of concerns  
5 and questions and suggestions and issues related to the  
6 project.

7                   Also, to have the best communication  
8 possible, we're going to need to present a little bit of  
9 information. And, as Tom said, we have some information  
10 to present up front and we have very purposely kept that  
11 very short so we can move into a mode of listening to  
12 questions or statements and answering those and then we  
13 want to be able to move into a question and answer  
14 process.

15                   If you look on you'll agenda, you will see  
16 that at the bottom of the page we've reserved some of the  
17 more detailed discussions about all of the alternatives  
18 and the screening criteria and how specific criteria  
19 related to these specific alternatives was put at the end  
20 of the evening only because that is a very kind of  
21 detailed set of presentations and we didn't want to talk  
22 too long up front.

23                   Now, we can certainly dig into that

1 information and bring it up forward and just kind of see  
2 how it goes, but we bumped that back toward the end.

3 So, without further adieu I would like to  
4 proceed with two short presentations. The first one is  
5 Patty Hambey. She has eight or nine slides that talk  
6 about the federal process for solving problems with the  
7 NEPA process that we've talked about, what is it, how  
8 does it come up with the screening criteria, what is that  
9 all about. That's about five minutes.

10 And then I'm going to take about five  
11 minutes to share some information about the alternatives  
12 very specifically related to the possibility of being  
13 able to implement them or not. And I think we need to  
14 get that information on the table at the beginning of the  
15 meeting because it will us inform our suggestions  
16 throughout the rest of this meeting.

17 So with that said, I'll just turn it over  
18 to Patty.

19 MS. HAMBEY: Okay. Again, like Jed said,  
20 I'm just going to run through the NEPA process and I'll  
21 be as brief as possible. If I go too fast, I'll be  
22 around afterwards for questions or we can get -- you can  
23 get in contact with me through the website or email.



1                   As most of you know, the Washington  
2 Aqueduct is a division of the Baltimore District U.S.  
3 Army Corps of Engineers. We are a federal facility.

4                   All federal agencies must follow a  
5 specific process to pursue an action that involves  
6 federal land and federal money or a federal permit. That  
7 process is known as the National Environmental Policy  
8 Act, or NEPA.

9                   It mandates a full and objective analysis  
10 of the potential implications to the environment, the  
11 implications of our project to the environment. It's a  
12 multi-disciplinary evaluation, including both natural and  
13 human environment.

14                   NEPA is a structured process. Under the  
15 NEPA process, the agency, that's us, is required to  
16 consult with other resource agencies. We're also  
17 required to solicit participation of the public and other  
18 stakeholders.

19                   NEPA is a process of evaluation, but it  
20 does not mandate selection of the environmentally  
21 preferred alternative. It doesn't mandate the  
22 environmentally preferred alternative, the most popular  
23 alternative. It requires us to go through the process,

1 make the evaluation, and disclose the impact of the  
2 selected alternative.

3 NEPA studies could be performed at a  
4 various levels of detail. The three are listed here in  
5 increasing order of detail: First, categorical  
6 exclusion; second, environmental assessment; and, third,  
7 environmental impact statement.

8 For this project, at the very beginning we  
9 made the decision to go directly to environmental impact  
10 statement because it is the most rigorous evaluation  
11 process.

12 Okay. The environmental impact statement  
13 examines all issues and involves the public and  
14 regulatory agencies.

15 On the right of this slide is the  
16 resources to be evaluated. I'm going to run through them  
17 because it's a little small and it's important.

18 Air quality, biological resources,  
19 cultural resources, cost, geology, ground water,  
20 hazardous materials and waste, implementation  
21 uncertainty, land disposal, land use, noise, public  
22 health, socioeconomic resources, soils, solid wastes,  
23 service water, topography, transportation, utilities, and

1 visual.

2 We also have to assess the cumulative and  
3 secondary effects of these resources.

4 Now, on this slide, you'll see a step by  
5 step -- step by step map of the NEPA process. On this  
6 slide everything that is shown in yellow is a public  
7 input step. So I'm going to go ahead and step through  
8 the process starting here with notice of intent.

9 Notice of intent describes five objectives  
10 for our overall project. The five objectives are: Allow  
11 the Washington Aqueduct to achieve complete compliance  
12 with our NPDES permit. Design a process that will not  
13 impact current or future production of safe drinking  
14 water. Reduce, if possible, the quantity of solids  
15 generated by the water treatment process. Minimize, if  
16 possible, impact on various local and/or regional  
17 stakeholders and minimize impact on the environment.  
18 Design a process that is cost effective in design,  
19 implementation, and operation.

20 These are the five objectives.

21 We recognize at this point there will not  
22 be an alternative that has no impact. So we have focused  
23 on these five objectives for our project.

1                   Now, back to the step by step process.  
2 From notice of intent, the next step is develop screening  
3 criteria, then a public scoping period followed by  
4 identify and develop alternatives and screen  
5 alternatives.

6                   From the notice of intent, we developed  
7 the screening criteria and held the public scoping  
8 period. At this public scoping period, the public had  
9 the opportunity to comment on the screening criteria that  
10 were developed, as well as giving us ideas of  
11 alternatives to carry forward in the analysis.

12                   UNIDENTIFIED SPEAKER: When was that?

13                   UNIDENTIFIED SPEAKER: When was that?

14                   UNIDENTIFIED SPEAKER: Nobody knew

15 anything about that.

16                   MS. HAMBEY: The date was January 19th.  
                    << The correct date was January 28th.

17                   UNIDENTIFIED SPEAKER: How come I didn't  
18 -- I didn't receive any notice?

19                   MR. CAMPBELL: I forgot to mention  
20 something. If you would bear with us, hold onto the  
21 questions that everybody has associated with this. We  
22 are very, very well aware of that.

23                   I would ask you, please, we just have

Anita B. Glover & Associates, Ltd.  
10521 West Drive  
Fairfax, Virginia 22030  
(703) 591-3004

8-1-FB, NB

1 limited our presentations to be very short. Let us  
2 finish and then you can have at us with all of these  
3 questions.

4 UNIDENTIFIED SPEAKER: Tell the truth.

5 UNIDENTIFIED SPEAKER: Well, tell the  
6 truth, then.

7 UNIDENTIFIED SPEAKER: You should be able  
8 to comment on this while the slide is up there.

9 UNIDENTIFIED SPEAKER: Sure.

10 UNIDENTIFIED SPEAKER: I didn't even know  
11 -- I didn't happen -- I didn't happen to know about any  
12 of those meetings and I was at the first meeting, so I'm  
13 looking around at all of those empty seats. And I think  
14 a lot of people like me who have lived here for over 22  
15 years didn't get notice of this meeting.

16 UNIDENTIFIED SPEAKER: Hurray.

17 UNIDENTIFIED SPEAKER: Hurray. That's  
18 true. That's what truth sounds like.

19 UNIDENTIFIED SPEAKER: Right.

20 MR. CAMPBELL: We have a lot to talk about  
21 tonight. One of our issues at the September 7th meeting  
22 is that people didn't feel like they were able to hear  
23 each other, there was a lot of disorganization. And we

1 would like to proceed in any organized manner. We have  
2 just a few things to present here and then you can just  
3 go into lengthy questions and answers. We want to take  
4 all comers.

5 And I would ask you to let Patty present  
6 this information first.

7 And the scoping was in January, and the  
8 exact date, I can't remember.

9 UNIDENTIFIED SPEAKER: It wasn't very --

10 UNIDENTIFIED SPEAKER: Where was it held  
11 and who attended it? Or don't you know that, either?  
12 Are you going to answer the question?

13 MS. HAMBEY: Screening is an approach  
14 commonly used to identify the alternatives that meet the  
15 purpose and need of the project. The screening criteria  
16 were drafted by the Washington Aqueduct team. The  
17 screening criteria was circulated for public review and  
18 comment as a part of the scoping and prior to the  
19 screening.

20 Screening ensures -- This is important.  
21 Screening ensures that the Aqueduct focuses only on  
22 alternatives that enable it to meet the project's  
23 objectives. That's where the screening comes in, it

1 screens out the alternatives that won't allow us to meet  
2 the project's objectives.

3 Then once we screen out those  
4 alternatives, NEPA requires further analysis of those  
5 alternatives that are then feasible and reasonable.

8-2-NB

6 UNIDENTIFIED SPEAKER: Screening criteria  
7 were never circulated.

8 MS. HAMBEY: Again, the feasible and  
9 reasonable alternatives must meet the purpose and need  
10 and the objectives of the project, comply with law, be  
11 institutionally possible.

12 I'm going to breakdown the screening  
13 criteria. They are listed to the right.

14 Meets the Federal Facility Compliance  
15 Agreement schedule, preserves reliability and redundancy  
16 of the system, uses design and processes proven in the  
17 water treatment industry, complies with NPDES permit,  
18 considers economic effect, avoids undue impairment of  
19 jurisdictional wetlands, confirms with the Endangered  
20 Species Act, avoids significant alteration of important  
21 cultural resources, and complies with existing plans and  
22 institutional considerations.

23 UNIDENTIFIED SPEAKER: No criteria on

1 impact to the neighborhood.

2 UNIDENTIFIED SPEAKER: Nor the  
3 transportation system, nor the --

4 MS. HAMBEY: The EIS examines all issues  
5 that involves the public and regulatory agencies. Again,  
6 we're back to the process.

7 Again, I'll just reiterate notice of  
8 intent to develop screening criteria, public scoping  
9 period, develop and -- identify and develop alternatives,  
10 screening alternatives, and then this point.

11 And that's where we are now. Many of you  
12 have seen this before.

13 No decision can be made on one of the  
14 reasonable and feasible alternatives until all impacts  
15 are evaluated. This is a picture that we've used to  
16 show, this is the universe of all of the alternatives  
17 that we looked at. When we screened them against the  
18 purpose and need of the project, we came out with four  
19 alternatives that have been identified to be carried into  
20 the EIS for detailed evaluation.

21 A decision has not been made. From these  
22 four alternatives we need to do an evaluation. And this  
23 shows some of the topics that we will evaluate. Air



1 quality, traffic, the visual, hazardous waste, ground  
2 water, et cetera.

3 From this evaluation, then the preferred  
4 alternative will be determined. It will meet the  
5 objectives of the project and it will be a balance of the  
6 trade-offs.

7 This right here is where we are now. We  
8 are evaluating these alternatives.

9 Mr. Jacobus said earlier November 15th.  
10 We will take ideas and go back and look at if there are  
11 any other alternatives that should be carried through  
12 this evaluation process and brought to the balance.

13 Okay, thank you.

14 MR. CAMPBELL: Hang in there with us for a  
15 moment. We've got, I think, seven slides to tell you the  
16 status of the alternatives where they stand right now in  
17 terms of analysis and where they stand right now in terms  
18 of their potential to be implemented or not.

19 I would like to walk you through those and  
20 then we will go straight to the question and answer  
21 session. And the reason I'm moving forward with this  
22 information is because I think it has a very direct  
23 bearing on the rest of the conversation. Otherwise, we

1 would just move straight into the Q and A session.

2 All right. In this little talk, I'm not  
3 going to talk about the mechanics of the alternatives,  
4 how they got there, which screening criteria apply or  
5 don't apply. We can go into that later in the meeting if  
6 people would like.

7 What I'm going to focus on what are the  
8 three alternatives and issues that we know right now that  
9 relate to their employability. That's all.

10 So the monofill is an obvious concern for  
11 a lot of people. I think most people are familiar with  
12 the general location and dimensions and parameters of the  
13 monofill, across MacArthur Boulevard from the Dalecarlia  
14 treatment plant on the land owned by the Washington  
15 Aqueduct, not far from where we're standing right now.

16 Go to the next slide, please.

17 Right now, as we're studying and  
18 developing a draft EIS we're going to show several likely  
19 significant impacts associated with the monofill, which  
20 is probably very obviously to you.

21 In an EIS a significant impact is a big  
22 strike against it.

23 Obviously, we're dealing with the issue of

1 visual impact. We've talked somewhat about that in our  
2 last meeting, how in some places you won't be able to see  
3 it, but in other places you will be able to see it quite  
4 clearly. This will indicate a significant impact on the  
5 EIS.

6 Land use is another area that will likely  
7 have a significant impact. The land use, obviously, is  
8 inconsistent with its current land use and is totally  
9 inconsistent with adjacent land uses in the community.  
10 That's something that we are evaluating. It makes total  
11 sense, that will be a significant impact.

12 There is another issue related to  
13 hazardous substances that I'm going to talk about in  
14 greater detail on the next slide that relates to the  
15 Spring Valley project, but what this does is it creates  
16 somewhat of an uncertainty about our ability to develop  
17 the monofill in the time frame necessary to meet our  
18 Federal Enforcement Act.

19 So let me walk you through that. What  
20 does that mean about hazardous substances?

21 Go to the next slide.

22 The Dalecarlia Reservoir site is  
23 programmed for a further investigation associated with

1 the Spring Valley project. Now, we've known that this  
2 area occupies the area historically known as Government  
3 Woods and it may indeed have been used for the American  
4 University's experimental station work.

5 What we are learning in further  
6 discussions with the Corps of Engineers associated with  
7 the Spring Valley project is that they are scheduling  
8 geophysical investigations to determine the potential for  
9 buried materials, determine if those exist.

10 Those investigations are scheduled to  
11 begin in year 2008. Now, that is just the start of the  
12 investigations. They collect data. The investigations  
13 take about a season. You collect data to determine what  
14 else to do.

15 Further, the findings of those  
16 investigations might be a cause for further work, for  
17 further investigation or even removal or clean up  
18 actions.

19 What does that mean for monofill  
20 alternative? That's the logical question. And let's go  
21 to the next slide.

22 What that means is that with this  
23 condition the Washington Aqueduct would be unable to

1 proceed with designing a monofill until Spring Valley  
2 project investigations are complete.

3                   There were some questions last time about  
4 would you just bury unimploded ordnances. You know, with  
5 the monofill, the answer to that question is, no, we  
6 can't do anything until Spring Valley proceeds with these  
7 investigations.

8                   So here is how this plays out, here is  
9 sort of the building blocks. Right now the Federal  
10 Facility Compliance Agreement, which is our Federal  
11 Enforcement Act that the Aqueduct has entered into under  
12 the Clean Water Act, mandates that the residuals  
13 management program be in place, that is designed and  
14 operational and up and running, by the end of 2009.

15                   The Spring Valley investigations don't  
16 start until 2008. It might go two years. So you can see  
17 that there is a disconnect in terms of the schedule on  
18 those two agendas.

19                   The conclusion right now in the current  
20 context of project is that the monofill alternative may  
21 not be feasible within the project's current schedule.

22                   I just wanted to get that out on the  
23 table.

1                   Now I'm going to talk through the next --  
2   sort of in fair treatment with the next two alternatives  
3   and then I'll stop talking and we'll go into a question  
4   and answer mode and we'll use a lot of the other people  
5   here to help answer questions.

6                   Next slide.

7                   The next alternative, we call Alternative  
8   B, that's off-site disposal. That involves trucking the  
9   residuals to a remote location. There is a lot of  
10  concern about that too.

11                  Essentially, what this means is that the  
12  Aqueduct would contract with licensed haulers and they  
13  would haul the material to a range of different kinds of  
14  permitted facilities. They might be agricultural  
15  applications. It might be a landfill. There are  
16  different ways to dispose of this.

17                  Right now in the project we have a set of  
18  haulers that are being evaluated to understand the full  
19  range of potential traffic impacts. From the very start,  
20  we learned about the very high concern about traffic  
21  impacts. We'll look into that very closely. We're not  
22  just looking at one or two << haul routes. We're looking at a  
23  wide range of them.

1                   And the << haul routes that have been selected  
2 use high volume roads and correspond where possible with  
3 the emerging D.C. truck management strategy.

4                   Let's keeping going. I have one more  
5 slide on this one.

6                   The question is where are these << haul routes  
7 there's a map here. That's on the internet as well.  
8 Seven haul routes are being used to think about how to  
9 disburse truck traffic and reserve operational  
10 flexibility.

11                   I won't go through each one of them, but  
12 they're up on there and that figure is available one the  
13 internet and we'll also mail it to you if you want it.

14                   The other question, obviously, is, well,  
15 how many trucks are they talking about. Down here in  
16 this yellow box -- I'll try to walk you through this.  
17 The data we have are just Monday through Friday. No  
18 trucks on Saturday or Sunday. It depends on the size of  
19 the truck, obviously.

20                   The left-hand column there says a 20-ton  
21 truck, which is a pretty average truck for around here,  
22 the current amount of water that is being produced by the  
23 Washington Aqueduct for distribution to its customers,

1 under that current amount of water, there would be nine  
2 trucks of residuals per day going on these haul routes.

3 By the 20-year projection, that means when  
4 the Washington Aqueduct generates more water to meet the  
5 growing population, that means more residuals, there  
6 would be an additional truck, up to ten trucks per day.

7 Then, obviously, if we go to a smaller  
8 truck, which is a ten-ton truck, it would go up to 16  
9 trucks per day and under the current 20-year project,  
10 that means when the Aqueduct is making more water, it  
11 might go up to 20 trucks per day.

12 Let's go to the next slide.

13 So we disclosed what we know about the  
14 monofill so far. We've disclosed what we know about the  
15 trucking issues so far.

16 So far off-site disposal has fewer known  
17 impacts than the other two alternatives. I'm going to  
18 get, obviously, to the next alternative, which is Blue  
19 Plains. This is so far.

20 Licensed disposal, meaning the  
21 contractor's have to be licensed, to ensure that all of  
22 the environmental regulations are being met at the  
23 disposal location, which would be a remote location.



1 Truck volume, we've been doing traffic counts and that  
2 information isn't available tonight, but we can discuss  
3 that at a future meeting, will probably not exceed the  
4 existing level of service on selected roads.

5 Now, there are other things to think about  
6 with trucks. We understand that. But it's just that one  
7 measure, the truck volume will probably not exceed those.  
8 And the truck quantities might be reduced if new  
9 technologies can be implemented over time.

10 We're looking at alternative coagulants.  
11 Coagulants are materials used to bring the residuals  
12 together in a solution so they settle out and fall to the  
13 bottom.

14 And then we're looking at alternative  
15 Forebay residuals, dewatering. The Forebay is the place  
16 where the water from the Washington Aqueduct sort of  
17 lands before it goes into the reservoir proper.

18 Next slide.

19 So then Alternative C is the pipeline to  
20 Blue Plains. And this will mean building a new 12-mile  
21 pipeline from the Dalecarlia Water Treatment Plant, which  
22 you can see kind of right there in the middle of the  
23 graphic there, it's says in red Dalecarlia Water

1 Treatment Plant, to the Blue Plains Wastewater Treatment  
2 Plant.

3 This alternative has several benefits.  
4 One is that it eliminates trucking of residuals from the  
5 Dalecarlia Water Treatment Plant. However, the residuals  
6 still have to go somewhere and they would be down at Blue  
7 Plains and be trucked from there. So that's the general  
8 concept of the pipeline.

9 Now, I just have one more slide that I  
10 would like to show. We're looking at that in the same  
11 level of detail that we're looking at the others. The  
12 pipeline is not an easy thing to make happen.

13 The work to date is revealing that there  
14 will be likely significant impacts associated with the  
15 pipeline corridor. We've been meeting with  
16 representatives of different districts of the National  
17 Park Service. They have expressed concern to us about  
18 the presence of historical and archeological resources,  
19 particularly with effect to the C and O Canal, through  
20 Georgetown, through five national parks.

21 There is potential for the pipeline  
22 intercepting hazardous materials, particularly as it  
23 crosses across several military bases near the Blue

1 Plains treatment plant.

2                   There are extensive land uses that we're  
3 crossing. That kind of goes without saying, in addition  
4 to the national and significant C and O Canal, we go  
5 right along the Jefferson Memorial through the Washington  
6 Mall and we cross, as I said a second ago, five national  
7 parks.

8                   All of that creates some potential  
9 economic impacts that are associated with high  
10 construction costs. The Park Service has told us that  
11 we're going to have to dig, put this pipe underground.  
12 We're not going to be able to dig a trench and lay it.  
13 It's going to have to be what's called trenchless  
14 technology. That's possible. It's expensive. We're  
15 trying to figure all of that out.

16                   There are the issues of securing right-of-  
17 way permits. Some might be federal. Some might be local  
18 D.C. You see the complexity there.

19                   Just in general there are a large number  
20 of local and federal agencies involved that complicate  
21 and extend the approval process.

22                   We had a meeting with the Attorney General  
23 for the District of Columbia last week to learn more

1 about that. I don't want to make too much of that, but  
2 I'll be very honest, there are a lot of issues that we're  
3 going to have to work forward with respect to the  
4 pipeline. And so that leads to some degree of  
5 implementation uncertainty. And that's something that we  
6 have to consider heavily as we think about whether it  
7 would enable the Aqueduct to meet its schedule of the  
8 very real thing of the Federal Enforcement Agreement.

9 I think that's all of my slides.

10 Why don't we do this? Why don't we have  
11 some lights in the room? The question and answer  
12 session, obviously, is tricky. Two things. One, the  
13 last time I understand that people were frustrated  
14 because they couldn't hear each other and I understand  
15 that.

16 If you have a question, I would ask that  
17 you come up to the microphone.

18 The next issues is we want everybody who  
19 wants a chance to talk to be able to be heard. So some  
20 of you may have lengthy statements and that's fine. We  
21 would like to hear those. If you have a long series of  
22 questions and if there is somebody behind you, I would  
23 ask that you ask two of those questions and let the one

1 behind you talk. If there isn't anyone, we'll just go  
2 through the questions.

3 And one other point. We have a number of  
4 slides to help us answer some of the questions. We'll  
5 just have to see how these questions go. So there might  
6 be some awkward moments as we say, excuse me, let's dig  
7 up the three slides that deal with that topic. So we  
8 would ask you to bear with us. There might be some  
9 pauses that help us communicate this information a little  
10 bit better. So that's all I have to say.

11 [REDACTED]: Okay. For the record, my  
12 name is [REDACTED] I live on the 6000 block -- Can you  
13 hear me?

14 I live on the 6000 block of Broad Street  
15 in Bethesda. So, like a lot of people in this room,  
16 particularly the ones from Brookmont, I'm your immediate  
17 neighbor. And I'm here representing the civic league  
18 tonight.

19 And I wish I had a good message or, you  
20 know, a positive statement to make, but I don't.

21 Shortly, based on the type of response you're getting  
22 from your graphic, you're going to hear a lot of  
23 complaints about the disposal of residuals.

8-3-EA

1 I have a threshold issue which precedes  
2 that. That's why I sort of jumped up here to speak to  
3 you first.

4 At the heart of each of these proposals is  
5 the notion that a building will be constructed at the  
6 edge of our -- excuse me, at the edge of our property, at  
7 the edge of your property, which is basically a  
8 dewatering and thickening facility.

8-4-BA

9 The building is really quite objectionable  
10 in and of itself. While we support Westmoreland Hills  
11 and our colleagues in the District of Columbia civic  
12 associations fully and we support them in a way that  
13 they've laid out that they're attacking the process. As  
14 you can hear from the chorus, the process did not work.

15 It certainly didn't work for the  
16 residuals, but it worked less for the plans for this  
17 building. It suddenly appeared in your engineering  
18 feasibility study at the heart of each of these disposal  
19 issues. You can't dispose of residuals until you create  
20 them.

8-5-BA, BC,  
BF, BG

21 What you're proposing to do is create  
22 these residuals in a building that would tower 120 feet  
23 over our community. It will provide a visual intrusion,

1 light, noise, smell. In every possible way, it seems  
2 almost as if the design were come upon -- was developed  
3 in an effort to push the plant as close as you could to  
4 Brookmont.

5 As you look at the site plan on C-8 in the  
6 engineer's feasibility study, the plant is going to be  
7 built right up against the fence, the back fence, the  
8 west fence, of your property.

9 There is no attempt at buffering. No  
10 attempt at all at masking this monstrosity. In fact,  
11 rather to the contrary. What you're planning to do is to  
12 cut down -- clear-cut trees, which seems to be in a lead  
13 with your monofill project. You want to cut down a stand  
14 of white pine trees that were put up in the late  
15 seventies and replace it with a narrow road at the back  
16 of the plant so that any possible chance there would be  
17 -- that the sound, the smell, the sight of the building  
18 would be mitigated is lost.

19 And it's particularly ironic because in  
20 the late seventies a few of us, I wasn't among them, went  
21 to your predecessor and complained of a series of single-  
22 story buildings that were put back there that were  
23 providing light pollution into this area. That

1 management's response at that point was to put in a  
2 series of trees that now have grown to 40, 45 feet in  
3 height. They would provide some masking for 120-foot  
4 building, but not a whole lot. Your building is going to  
5 be 120 feet above our intersection at First and Broad.

6 But to do the plan as it has been laid out  
7 by your consultants, you would have to take these trees  
8 down. It's ridiculous.

9 The plans themselves makes no provision  
10 for mitigating its sounds. Rather, as a pre-made bay  
11 doors open from the base of the plant so trucks can go up  
12 and down the sewer plant, so we would have the -- the  
13 intrusion of the noise from the plant itself, truck  
14 traffic, the visual pollution.

15 There is nothing in here that was thought  
16 out at all. And to say -- the people are here have  
17 complained that there was no -- no citizen input into the  
18 disposal of the residuals, I'll have to tell you quite  
19 candidly that there was no discussion at all of this  
20 plant. And it's a little bit absurd.

21 We'll willing to talk to anyone and we  
22 have. And we were good neighbors with the plant when  
23 there was opportunity.



1 I have a formal statement which I would  
2 submit for the record. But I know there is a lot of  
3 people here who see the residuals issue as red meat and  
4 want to get to it immediately.

5 Let me take a quick look to see if there  
6 is anything thing I've missed on our list of complaints.

7 UNIDENTIFIED SPEAKER: Jim, make it clear  
8 where you live.

9 [REDACTED]: Actually, where I live is  
10 relevant, but it's relevant on a personal basis. This  
11 building -- I live on the 6000 block, or the 6,000 block,  
12 of Broad Street, 750 feet behind the plant.

13 UNIDENTIFIED SPEAKER: And have you ever  
14 been invited to a public input session with these people?

15 [REDACTED]: No, of course not.

16 UNIDENTIFIED SPEAKER: Okay. Well, I just  
17 checking.

18 [REDACTED]: We went to a session in the  
19 mid-nineties, I think, at a hotel -- a government office  
20 building in Bethesda where there was a general discussion  
21 about the NEPA process. No mention of a building,  
22 particularly a building of this size and this ugliness,  
23 to be quite frank about it, and this intrusive. No

1 discussion at all.

2                   If somebody is going to plan -- and the  
3 Army is telling everyone the discussion here is what  
4 we're going to do with the residuals. That's not the  
5 discussion. The discussion is how are we going to create  
6 the residuals and at what cost to the neighborhood behind  
7 you.

8                   And I'll tell you people in our  
9 neighborhood are very, very concerned about this and are  
10 very, very interested in talking to their elected  
11 representatives and making a case that this was ill  
12 thought out. It actually seems to be designed as a  
13 punitive measure to us. It's unbelievable, the design.  
14 It's an 80-foot tall building that's 170 feet long and 80  
15 feet wide with no attempt at masking it. As I say, at  
16 the risk of repeating myself, there is not any masking.  
17 In fact, there is a removal of trees that would have  
18 provided a minimum level of site amelioration.

19                   So we're -- we want this issue addressed  
20 and we want to talk to whomever. There is a loss of  
21 trees and the site itself which is absurd, the height of  
22 the building, the sound and the odor.

23                   This is an issue not only for us, but for

1 everyone in Palisades and a few other places.

2 The engineers feasibility study doesn't  
3 really address this. I mean, there is a sop one way or  
4 the other to the issue, but it doesn't really -- it is  
5 hardly conclusive and it really doesn't provide any  
6 reassurance at all.

7 So, in conclusion, what I would like to  
8 say, we are one hundred percent united with the citizens  
9 groups in Westmoreland Hills and D.C. civic associations  
10 that are opposing the residual disposal option.

11 I think the notion of trying to solve one  
12 ecological problem of dumping them out in the Potomac  
13 River by creating a more erroneous, objectionable type of  
14 environmental degradation, we can't support that at all.  
15 I don't think anyone can. I don't think we can.

8-8-JA

16 And let me say finally, that's not the  
17 real issue. That's a major issue of burning concern for  
18 everyone in this room. But the threshold issue, the  
19 seeding question that has to be answered, what about this  
20 building that is going to create the noise, the smell,  
21 all of the rest of it, it's not addressed and we want to  
22 get it addressed. And we want that to be an open session  
23 where everyone gets some input, including our elected

1 representatives. Thank you.

2 MR. JACOBUS: Let me just very, very  
3 quickly respond to some of our points. Thank you very  
4 much for making them.

5 We have -- we are currently considering  
6 three alternatives. Two of those alternatives, the  
7 monofill disposal alternative and the off-site trucking  
8 alternative, do in fact require us to take material, the  
9 solids -- this bottle right here is the consistency of  
10 the solids that's in the basin -- and get them into a  
11 form where they can be transported in a solid, durable  
12 form.

13 So there would be the need for some kind  
14 of an industrial facility to be built, essentially a  
15 centrifuge or a press building or something, to satisfy  
16 the need to get from that form to a solid form to truck  
17 or dispose of in the monofill.

18 Recognizing that adding an industrial  
19 process at the Dalecarlia site is something that would  
20 obviously be a concern, that's why we put a number of  
21 alternatives into consideration, which was taking it in a  
22 slightly more condensed, but very much of a liquid form,  
23 and looking at an off-site disposal option that did not

1 involve the trucking, i.e., the pipeline.

2                   So of the three alternatives we are  
3 evaluating, we have one that does not consider building a  
4 building and two that would, in fact, consider building a  
5 building.

6                   Your input tonight here is very useful to  
7 us and we would look forward, as we continue with the  
8 identification of all of the building criteria, that we  
9 talked about, the noise, the visual, the odor, all of  
10 those things that are of a concern to you citizens who  
11 either live close by or who somehow interact with us,  
12 those must be considered as we evaluate what the  
13 preferred alternative is.

14                   So we will be doing that and we're doing  
15 that right now. You're giving us input so that we will  
16 turn that around. So we have --

17                   And let me say one other thing and then I  
18 want to get to the next question.

19                   We are not here tonight able to walk away  
20 from the permit that EPA has issued or the compliance  
21 schedule EPA has issued to us. There is no one here from  
22 EPA tonight that I'm aware of.

23                   Is anybody from EPA here? Oh.

1 Representing this project in some way? Okay.

2 EPA over the course of the last two years  
3 issued a couple draft and then a final permit. And  
4 whether any of you individual or collectively think it's  
5 a good idea or not, EPA has a regulatory responsibility  
6 invested in them under the Clean Water Act has issued a  
7 permit determining that the solids will not be sent to  
8 the river. That is totally out of our control.

9 We are here tonight to assess the best way  
10 of us proceeding forward given that permit. So I am  
11 unable to entertain any discussion here this evening  
12 about going backwards and writing a new permit. We are  
13 where we are.

14 So we would like to most the most of this  
15 evening to hear your input on the alternatives that we've  
16 put on the table and how we can and should evaluate  
17 during our EIS process that we're trying to undergo the  
18 kind of issues you brought forward here.

19 : Just a brief follow up. Just  
20 a very quick follow up, and this won't take but a minute.

21 The options that have been laid out  
22 basically involve moving the material one way or the  
23 other. And each of them that the consultants -- I mean,

**8-9-EA**

1 your own consultants put out this. The ones that they've  
2 underscored require making the residual at Dalecarlia.

3 There is mention of another option that was basically  
4 knocked down by the authors of the study.

5 So, basically, there is a misdirection to  
6 suggest that there is that option. There is that option,  
7 but it has been knocked down.

8 MR. CAMPBELL: He's very correct that all  
9 of the three alternatives presently being considered as  
10 these buildings as a comment element in one way or  
11 another.

12 We do have information that talks about  
13 those buildings. I think there's someone else who wants  
14 to talk now. But we can certainly go into that. We've  
15 got pictures that talk about what -- you've laid it out  
16 exactly really as it is.

17 We also have information to go into the  
18 other alternatives, creating the residuals, where could  
19 we do that, whether it's feasible or not feasible to do  
20 that. And we would be happy to go into that. We might  
21 hold that for a little bit later because it involves  
22 getting into something, but we are prepared to talk all  
23 about that issue and why we came to those conclusions.

1 I would like to go to the gentleman who  
2 has been waiting very patiently.

3 [REDACTED]: My name is [REDACTED]. I'm a  
4 50-year resident of Westmoreland Hills and used to play  
5 in your woods illegally.

8-10-BB, CA

6 One of the things that I think fans the  
7 flames of opposition and the frustration which makes it  
8 seem like a joke to the neighbors is that we're talking  
9 about permanent damages, whether its a residuals building  
10 or the monofill for a temporary solution.

11 And if you say, oh, can I tear down your  
12 house because they need to temporarily store some things  
13 on your lot and so that is -- you know, you're not  
14 talking about a permanent solution. And if you say, oh,  
15 no, it is a permanent solution, what you're really saying  
16 is the trucking solution and the monofill solution  
17 because some days that's -- the excess has got to be  
18 taken away.

8-11-FD, IB

19 So that is a major thing to keep in mind,  
20 that this seems like an awful lot of disruption for  
21 something that is, I understand, a 20-year fix. It may  
22 be more, may be less. But, I mean, a temporary solution.

23 And I think that should be a major



1 criteria in the process.

2 The other kind of thing that sort of --  
3 and all of us, unfortunately, now can get on the internet  
4 and we will look like experts with a little bit of

5 Googling and all. And, apparently, you mention  
6 alternative coagulants and all. Apparently, there are  
7 places doing this in their water system now and I gather  
8 it cuts it a third or two third or something like that,  
9 which, of course, obviously would make this much better.  
10 Instead of nine truck, it would be three trucks.

8-12-EB, GA

11 It is just a feeling that I guess all of  
12 us are saying, it doesn't seem thought through and we  
13 weren't there when the process was going on. But the  
14 main one I think from that one alternative is if you're  
15 going to tear things down for -- I don't want to say  
16 major, but it is a temporary kind of thing. It's no more  
17 sensible than if you said to one of these people I'm  
18 going to tear down your house because we need to store  
19 some stuff there for while and we hope for another  
20 solution some day. Her house is already going. The  
21 roots are gone. The building is always there.

22 And I think that is -- you have got to  
23 keep that in mind. That is a -- should be a gigantic

1 screening issue. But it is not a solution.

2 One of the joys about having -- however  
3 you want to get it to Blue Plains is -- you have barges  
4 that can come there and they can load. They can take it  
5 off to whatever. And I am sure that someday we will be  
6 going, wow, you know this stuff is gold, a farmer,  
7 somebody is going to want this and they are going to want  
8 to be able to use it. Well, you are not going to be able  
9 to use it if it is in a pile in our temporary pile here,  
10 because you're going to have to go trucking again.

11 So it makes sense that trucking is going  
12 to be the solution no matter what. And there is a lot  
13 that doesn't make sense to the average mind trying to see  
14 it. And I think the temporary aspect, and it is a dead  
15 end aspect too, should be a major disincentive for that  
16 -- for that issue.

17 MR. CAMPBELL: If it is fair, I am going  
18 to consider most of that a comment. You had some things  
19 that are essentially questions. One would be alternative  
20 technologies and their applicability here. We can  
21 certainly talk about that.

22 Another one is the barge alternative,  
23 which is something that we looked at in some detail

8-13-DA,  
HA, GA

1 because it was suggested to us early one in the process.

2 [REDACTED]: Barge to Blue Plains.

3 MR. CAMPBELL: Yes, right down to Blue  
4 Plains. It seemed to be an elegant solution and we  
5 looked at the whole issue of navigability on the Potomac  
6 River in some length. And we're prepared to talk about  
7 both of those.

8 I guess I'll just suggest that if we have  
9 a lot of comments, we should proceed through those before  
10 we got into the alternative process. Does that seem to  
11 make sense?

12 [REDACTED]: Oh, absolutely.

13 MR. CAMPBELL: Okay. If you want to hang  
14 around and, if we haven't gotten to it, we can get into  
15 slides and dig into those two issues.

16 I'll go over here.

17 [REDACTED]: My name is [REDACTED] and I  
18 live in the District. I'm moving to Maryland. I have a  
19 comment and question.

20 First, I just want to thank Bob Sloan for  
21 making this facility available. Sibley Hospital is such a  
22 great neighbor. And I think we're all happy to be here.

23 The statement is real simple. I'm against

8-14-CA, IA

1 the monofill. I think that clearing 30 acres to create  
2 an 80-foot mound of dirt is just repugnant and I'm  
3 against it.

4 I think the pipeline would be wonderful,  
5 but I'm not going to comment on that because I don't know  
6 about the feasibility of that. I think everyone would  
7 like to see that.

8-15-GA, CA

8 But I am only going to comment on the  
9 other alternative, and that is the trucking. And I would  
10 say that compared to the monofill, 9 to 10 trucks a day,  
11 even 16 to 20 trucks a day, and seven routes does not  
12 strike me as objectionable an alternative as the  
13 monofill. And that is all I have to say.

14 [REDACTED]: My name is [REDACTED]. I  
15 live in Westmoreland Hills. I have a couple of  
16 questions.

8-16-CA

17 One is how did the monofill become one of  
18 the top of the three alternatives when, in fact, it seems  
19 to be a mute point given the Spring Valley problem which  
20 has to be started in 2008 and your solution has to be  
21 finished in 2009? How did that --

22 MR. CAMPBELL: I'll give a quick answer to  
23 that question.

1                   First of all, it is not the top ranked  
2 alternative. Unfortunately, it is one of the three and,  
3 unfortunately, it is labeled number A, which makes it  
4 seem like the top ranked. It is one of the three.

5                   The question is how did it get there in  
6 the first place.

7                   [REDACTED]: When it seems to be a mute  
8 point.

9                   MR. CAMPBELL: When it seems to be a mute  
10 point right now.

11                  It got there in the first place because we  
12 listened to concern about truck traffic. We really  
13 wanted to be able to consider alternatives that did not  
14 involve continuous trucking from the Dalecarlia treatment  
15 plant.

16                  At the screening level of analysis, which  
17 is not a detailed level of analysis, we just said what is  
18 feasible given all of this criteria, what meets our  
19 purpose and need, you know, could we built it, what is  
20 legal. We own the land. The Aqueduct owns the land.  
21 They could do it. What is institutionally possible. It  
22 met those criteria.

23                  Now, when we move into the EIS, as Patty

1 was showing you, we look at things in greater detail.  
2 And so we dug into the issue of implementation in greater  
3 detail and said we need to really sit down with the  
4 Spring Valley folks and understand what their issues are,  
5 what the schedule is, how it might relate to our  
6 schedule.

7 And, in the course of those conversations,  
8 we learned that information. So that is how it gets to  
9 screening. We learn new information. And then we're  
10 sharing that with you as we -- as we see it.

11 [REDACTED]: Doesn't that negate the option  
12 entirely?

13 MR. CAMPBELL: Frankly, it is one that  
14 we're wrestling with right now. The short answer is we  
15 are going to continue that through the draft EIS. At  
16 this condition of the project, it will be not be  
17 identified as the preferred alternative because of all of  
18 the information that we have shown to you right now.

19 [REDACTED]: Okay. Last, I just wanted to  
20 say that the metropolitan community has put in a  
21 wonderful subway system. It's a hundred miles of subway  
22 track underneath the ground. I think we can probably  
23 figure out at least ten miles of a pipe to get sludge

8-17-DA

1 away to Blue Plains.

2 [REDACTED]: My name is [REDACTED]  
3 [REDACTED]. I live in Washington, D.C., in AU Park and I grew  
4 up in the neighborhood of Spring Valley.

5 I am an officer of the Army right now and  
6 I have been working with the Army Corps of Engineers, the  
7 EPA, and D.C. Health for about a year as a citizen, pro  
8 bono, to try to work everybody through the Spring Valley  
9 situation.

10 But I am going to bring something up right  
11 now that is two-prong. The first is I want to ask  
12 everybody here in the audience a question because the  
13 gentleman, the facilitator, here is doing his job  
14 tonight, a tough job, asked what -- he stated -- let me  
15 restate that.

16 He said he disclosed to everybody what was  
17 involved with one of the alternatives. How many people  
18 here in this audience did not know that the monofill  
19 alternative involved potentially digging up buried  
20 ordnance, chemical warfare ordnance, over in Dalecarlia?  
21 How many did not know that?

22 Now, did you just hear -- it almost -- it  
23 almost slid by, but it is very important, because I'm

8-18-CA

1 lecturing the to Corps and I am going to ask them a  
2 specific question that may be answered ultimately by  
3 people not up here or by Corps members elsewhere in this  
4 room.

5                   The Army Corps runs both the Aqueduct and  
6 it runs the cleanup process. But what you need to  
7 remember is he just said that they didn't know what was  
8 involved with their own alternative; i.e., that they  
9 might have to dispose of ordinance.

10                   So the question I ask back to the Corps is  
11 you don't really know what you're going to have to go  
12 dig, you may have to go dig something that may be weapons  
13 of mass destruction, maybe it is just straight up  
14 ordinance, along the reservoir, near our drinking water.  
15 So are you going to let this monofill drive or hasten or  
16 speed up the clean up which will affect the citizens of  
17 Spring Valley? That is my question.

18                   You're showing confusion and you are  
19 saying that you may not want to hasten -- you're not  
20 going to postpone the date -- and you see even how I get  
21 this mixed up -- you are going to postpone -- you are not  
22 going to postpone the date, but you are going to maybe  
23 have to hasten the clean up in Spring Valley. Where are



1 you going to get the money for that?

2 MR. CAMPBELL: This wasn't the purpose to  
3 put the Spring Valley project folks on the spot, so to  
4 speak. However, as an employee of the Corps of  
5 Engineers, if there sort of a policy statement about the  
6 relation of these two branches of the Corps, I would like  
7 Tom to address that.

8 MR. JACOBUS: Yeah. Let me -- it is sort  
9 of a paradox. On the one hand, we say, yes, we know the  
10 Spring Valley was a former test site, so we say we're  
11 going to put a monofill there; yet, we don't think about  
12 the process as the beginning.

13 Clearly, we do have a close working  
14 relationship with other elements involved in the Corps of  
15 Engineers. We need to know what they knew that would  
16 affect us. We need to know they -- what we knew that  
17 would affect them.

18 As  says here, it is not our  
19 responsibility as the Washington Aqueduct, as the  
20 supplier of water to our service area and as a neighbor  
21 of yours, we are not trying to influence the federal  
22 expenditure of funds on the Spring Valley project, either  
23 to accelerate or to slow it down. We realize -- of

1 course, I believe it is true. I don't go to these  
2 meetings. But I believe it is true that in this pile of  
3 money called FDS, Formerly a Defense Site appropriation,  
4 a significant amount of that money has been drafted for  
5 the Spring Valley clean up of that site.

6 The emphasis now is on remediation of  
7 arsenic contaminated soils at the residences in the areas  
8 directly affect the people who are currently living  
9 there. It is not our intention in any way to suggest  
10 that the Army take the propriety away from those and add  
11 that money to a project here that would clear the area.  
12 We're not asking for additional money.

13 But what we're doing is we were looking  
14 for an alterative to trucking to see if we can find,  
15 other than the pipeline, because it has its own issues,  
16 an alternative to trucking that we can handle locally.

17 The monofill would meet that in a -- in an  
18 engineering sense. It may not pass muster through the  
19 EIS from a human resource -- or a human design sense.  
20 And we understand that. We want some input on that.

21 But we are not trying to affect the Spring  
22 Valley project. We're not ignorant of it. But we have  
23 to tell you, and we use the word reveal or whatever word

1 that we used, it's not a secret word, what we are trying  
2 to say is that even though it is a feasible option, we  
3 cannot begin that option until we get this clearance.  
4 And it is not clear that we can get that clearance from  
5 other federal sources until 2008; therefore, we can't  
6 responsibly go forward with that.

7 But I think it is important that we do  
8 complete the analysis of all of those environmental  
9 factors just in case there were a change in federal  
10 priorities so that we can clearly understand what the  
11 effects of that monofill would be environmentally on the  
12 community even though its current time schedule can't be  
13 less because of the ordinance.

14 So, as Jed said here, that cannot be the  
15 preferred alternative at the present time.

16 [redacted]: I'm [redacted]. I live in  
17 Westmoreland Hills. The Council on Environmental Quality  
18 guidelines, which I received a NEPA process, provides  
19 that a lead agency must analyze reasonable alternatives  
20 even if there is a court order or a legislative demand to  
21 act.

22 Why were so many alternatives prematurely  
23 dismissed because they did not meet the arbitrary

8-20-FB, MA

1 deadlines set forth in the Federal Facilities Compliance  
2 << Agreement schedule? And, secondly, why are you unwilling  
3 to try to renegotiate these deadlines with the EPA since these  
4 deadlines are not imposed by a requirement of the law?

5 MR. CAMPBELL: I'll answer -- I'll answer  
6 part of that question and then I'll let Tom answer that.

7 And, Tom, we had a few slides on these if  
8 you would like to use them. If you want to pull up the  
9 EPA slide, Jennifer.

10 You are correct in that alternatives have  
11 to be -- or are required to be reasonable and feasible.  
12 That means in a NEPA analysis the lead agency is not  
13 required to look at any and all ideas, but those that are  
14 considered to be reasonable and feasible.

15 One of the threshold criteria for  
16 reasonable and feasible is the ability to meet the  
17 Federal Facilities Compliance Act schedule. That is,  
18 from my understanding, a federal enforcement act. It is  
19 law. So that schedule is law under the Clean Water Act.  
20 So it has -- the schedule was negotiated with the  
21 Aqueduct, but that is taken very serious.

22 So then the question is can that  
23 change or how did we get into that in the first place.

1 And I will ask Tom to talk about that using these slides  
2 so that they can flush that out a little bit. And why,  
3 under the Clean Water Act, that we're there in the first  
4 place.

5 Right now that is a driver, the Federal  
6 Facilities Compliance Act, is the driving force in  
7 answering -- in bringing the project.

8 MR. JACOBUS: I think this is maybe a  
9 chicken and egg thing. Let's assume that we were having  
10 this meeting to tell you that we, as the local water  
11 utility, thought as an operational advantage we wanted to  
12 recover the solids continuously and not periodically  
13 discharge them into the river. Let's assume that we  
14 didn't have a permit issue, that we were at the beginning  
15 of the permit that allowed us to go to the river and that  
16 we came up with this -- with this alternative because we  
17 thought it was a good idea, I think that is a different  
18 situation from where we are now.

19 We are under the permit and so -- and we  
20 don't have the option. I think that in the end you and  
21 I, whether we agree or disagree, or whether we just  
22 disagree, I think we are looking at this very  
23 differently.

1                   I am not, in my capacity, attempting to  
2 act in any way frivolously or capriciously. I have  
3 personally signed this agreement on behalf of the  
4 Washington Aqueduct and the Corps of Engineers to be in  
5 compliance.

6                   Since we had the meeting on the 7th and  
7 since we've had other communications with elected  
8 representatives and their staffs and other people, we  
9 have consulted with the EPA. And it is very clear to me  
10 that I am required to go forward as the operator, as the  
11 person who is initiating this action, to meet the project  
12 purpose and need. And the project purpose and needs is  
13 caused solely because there exists the Clean Water Act  
14 and they -- the EPA did, in fact, publicly announce and  
15 issue a permit that was not based on the quality of the  
16 water, the alum solvents to the river. We could  
17 demonstrate scientifically to our satisfaction and to  
18 many other's satisfaction, not everyone, but many others,  
19 that the solids did not have an adverse biological effect  
20 on the river; but, in fact, the other prong of the Clean  
21 Water Act requirement is simply that if there are  
22 technologies available to recover the solids, we would be  
23 required to do it.

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1                   And that was the basis for EPA's permit.  
2     It went to public comment. There were several meetings  
3     and several drafts and fact sheets. We are where we are  
4     on that.

5                   And so I respect your questions. I  
6     understand your question. I have investigated your  
7     question to make sure I know where we are so that we can  
8     have an ongoing discussion on the water issue. But  
9     compliance with the discharge limitations of the permit,  
10    i.e., the amount of solids that are allowed to go to the  
11    river in whatever concentration is essentially none. And  
12    the timing is what is driving us to this decision.

13                  And so our interpretation and our advice  
14    from our counsel and from EPA management is that we must  
15    proceed with this project. If you choose to oppose that  
16    in a way that caused EPA to change their mind, then we  
17    would be in a different situation.

18                  So the -- we are trying to come up wit the  
19    best way to recover these solids and dispose of them. We  
20    know this is a difficult process for all of our neighbors  
21    because of where we are in such an urban environment.

22                  So I'm probably rambling, so I had better  
23    stop.

1 MR. CAMPBELL: EPA has a fact sheet that  
2 they wrote on this permit describing why the permit  
3 exists, what is in it, what kind of input they had  
4 received. They had a public input involvement process in  
5 the permit.

6 I think we have got about 50 copies of  
7 that EPA fact sheet for those who are interested in it.  
8 Also, while that was up there, it is on their website.  
9 You can download it and we can give you that very long  
10 website address if you want to talk to them as well.

11 I think we will switch to the other side.

12 [REDACTED]: I'm [REDACTED] from  
13 Westmoreland Hills. I would like to know a little more  
14 about the January meeting for the criteria. Certainly, I  
15 didn't receive any notification of it and I imagine from  
16 the response here that very few people did.

8-21-FE

17 I would like to know what your -- how the  
18 meeting was advertised, what kind of an open meeting this  
19 was.

20 And, secondly, we have a statement here  
21 that talks about residuals and everybody has used that  
22 word. I would like you to define what these residuals  
23 are so we can understand how toxic they might be or

8-22-KC



1 whatever.

2 *Jed Campbell* : I'm going to spread the wealth  
3 a little bit on these questions here. Glenn, I'm going  
4 to come to you on the issue of residuals in a minute and  
5 when we might go to you, Ed, on the issue of residual  
6 toxicity, what do we know and what does that mean.

7 The first question is -- wait a minute,  
8 I'm given these guys a warning.

9 The first question is what about the  
10 scoping meeting, how come I didn't know about it, where  
11 was it held, when was it held, all of those kinds of  
12 questions.

13 UNIDENTIFIED SPEAKER: How many people  
14 here received notice of the January meeting? If you  
15 received notice raise your hand and let them know.

8-23-NB, FE

16 MR. CAMPBELL: The scoping meeting was  
17 advertise in the Washington Post and in the Northwest  
18 Journal. The scoping meeting was held in January at a  
19 school not far from here.

20 What was the name?

21 MR. JACOBUS: Saint Patrick's Episcopal.

22 MR. CAMPBELL: Saint Patrick's Episcopal  
23 Church. It was an open house format for three hours,

1 similar, obviously, to the one that we had on September  
2 7th where we had more people than was appropriate for  
3 that format.

4 I can't remember how many people came, but  
5 not many. We had about 80 letters, don't hold me to that  
6 number, that went out to the existing Aqueduct mailing  
7 list with respect to -- mostly to other agencies.

8 At that time, we did not have alternatives  
9 for people to respond to. We did not know we had a  
10 monofill in this particular area. In fact, we were  
11 responsible to really all of the service territory for  
12 the Washington Aqueduct to make available to that meeting  
13 and that is why it was advertised broadly in those  
14 papers.

15 UNIDENTIFIED SPEAKER: How many days was  
16 it advertised?

17 UNIDENTIFIED SPEAKER: Yeah.

18 MR. CAMPBELL: About two weeks, I believe.

19 UNIDENTIFIED SPEAKER: How many people  
20 came to the meeting?

21 MR. CAMPBELL: I think about 20, I think.  
22 It was on a cold January night.

23 I would like to get to the next set of

1 questions, if I could, and that is --

8-24-NB, FE

2 UNIDENTIFIED SPEAKER: Could you clarify  
3 for the record, would you ask people to raise their hands  
4 if they did not get notice?

5 MR. CAMPBELL: We'll verbally put in the  
6 record most people raised their hands.

7 (Multiple members of the audience speaking  
8 at the same time.)

9 UNIDENTIFIED SPEAKER: Jed, explain the  
10 narrowing of the scope and the identifying, the ability  
11 to identify.

12 UNIDENTIFIED SPEAKER: -- identify people  
13 in the community like a zoning or planning board that  
14 requires anybody that has a project to go to the adjacent  
15 neighborhood and actively get the names of all people,  
16 say, within 1,000 feet; why didn't you do that? Or maybe  
17 a mile for this particular project.

18 MR. CAMPBELL: There is a narrowing  
19 associated with this. First of all, it's not a zoning  
20 process. It's a NEPA process.

8-25-NB, FE

21 UNIDENTIFIED SPEAKER: Well, I'm talking  
22 about you should adopt that process of notifying people.

23 MR. CAMPBELL: Well, I don't -- In

1 fairness to everybody -- in fairness to everybody, I'm  
2 not going to respond to questions that come shouted from  
3 the audience. I'm going to stick to our format.

4 To answer your question, the NEPA process  
5 narrows in scope. If we had known that we had a monofill  
6 alternative, like we did when we mailed out 1,000 letters  
7 to the people living all around here, we would have done  
8 that.

9 At that point, we just had a project. We  
10 did not even have alternatives on the table. We had a  
11 project. We had a screening process, which I know is of  
12 significant concern.

13 UNIDENTIFIED SPEAKER: Why don't you let  
14 the people talk instead of you talking to the microphone.

15 UNIDENTIFIED SPEAKER: Yeah.

16 UNIDENTIFIED SPEAKER: How many people are  
17 listening?

18 UNIDENTIFIED SPEAKER: It's a question and  
19 answer. That means he has got to answer the question you  
20 asked.

21 UNIDENTIFIED SPEAKER: He can answer the  
22 question. He can talk all night. I'm going to stay here  
23 and I'm going to ask my question.

1 UNIDENTIFIED SPEAKER: Well, that's fine

2 --

3 MR. CAMPBELL: I am taking a shot at that  
4 answer. I'll go to --

5 MR. HARRIS: I would like an answer to my  
6 question.

7 UNIDENTIFIED SPEAKER: Yeah, exactly,  
8 answer his question.

9 MR. CAMPBELL: Thank you. I forgot.

10 Let's move on to the solids questions.  
11 And just refresh my memory. There were two. One was  
12 solids toxicity and I wanted you to address that. And  
13 there was another solids question.

8-26-KC

14 UNIDENTIFIED SPEAKER: Just the  
15 definition.

16 MR. CAMPBELL: Oh, what are solids.  
17 Glenn, do you want to talk a little bit about that?

18 MR. PALEN: We talked in the feasibility  
19 study about two types of residuals and that is because  
20 they separate out of the flow stream, the river, water  
21 source, at two different locations.

22 One type of residual is called Forebay  
23 residuals. Those are the sand and silt particles, if you

1 will, that come into the raw water conduit and literally  
2 settle by gravity in what is called the Forebay. This is  
3 the front portion of the Dalecarlia Reservoir.

4                   The second -- and those are literally  
5 river dirt, if you will. No chemicals have been added to  
6 those at all. Those residuals have been periodically  
7 removed from the reservoir every five, seven, or ten year  
8 or whatever by dredging for a long period time. And  
9 those -- many of these alternatives, we presented a  
10 feasibility study and talk about handling those in a  
11 similar fashion to the way they've been handled in the  
12 past.

13                   The second type of residuals we what we  
14 call water treatment residuals. About half of the river  
15 silt settles out by gravity in the Forebay. The other  
16 half, roughly, is still in suspension in the coagulant  
17 material and it goes into the water treatment facilities.  
18 There we add a coagulant. In this case it's is aluminum  
19 sulphate or alum. That enhances the coalescence of the  
20 material into bigger particles which then settles in the  
21 sed basins and are removed from the process, the  
22 treatment process there.

23                   The water treatment residuals are also

1 approximately half river silt and half chemical solids  
2 resulting from the addition of this alum, or aluminum  
3 sulphate.

4 That hopefully answers your first  
5 question.

8-26-KC

6 UNIDENTIFIED SPEAKER: Toxicity.

7 MR. CAMPBELL: There was another part of  
8 the question which I believe was are these toxic or how  
9 toxic are they. I'll just ask Ed to address that. Do  
10 you want to use the slides for that or do you want to  
11 just talk about?

12 MR. FLEISCHER: I think I'll just talk  
13 about it.

14 Essentially, as Glenn mentioned, the  
15 coagulant that is added is aluminum sulphate. Once that  
16 reacts with the alkalinity of the water and other  
17 particles, it essentially becomes aluminum hydroxide or  
18 aluminum phosphate. That is really a soil-like material  
19 that is definitely viewed as nontoxic.

20 As part of this analysis of the EIS, we  
21 are going to be taking samples of the residuals and  
22 sending them out for analysis. What we will be doing is  
23 this procedure known as the toxicity character --

1 MR. CAMPBELL: Leaching.

2 MR. FLEISCHER: -- leaching procedure.

3 And that is a procedure that is used for -- it is  
4 mandated by RTRA for anything that would be put in a  
5 landfill or a monofill, for example. And it is used to  
6 determine -- to define by federal standards whether  
7 something is toxic.

8 So what we do, we take the residuals, we  
9 run it through this process. Essentially, it simulates  
10 what would happen within a monofill or if those materials  
11 were applied to the land. And you collect the leachate  
12 and we analyze that. And what that does is give you an  
13 indication of how much of the material in the actual  
14 residuals would leach out. Okay.

15 So they analyze it for metals, heavy  
16 metals, lead, mercury, those types of things, and  
17 volatiles, semi-volatiles, pesticides.

18 These tests are done regularly. For  
19 example, for other water treatment plants in this area,  
20 the residuals are applied to agricultural lands. And,  
21 for example, in the State of Maryland, if you want to  
22 apply the residuals to agricultural lands, you do the  
23 test, it comes back negative and then you get a permit to



1 go ahead and apply. And that is what is being done, for  
2 example, at the Potomac plant down River Road.

3 So we're going to do the TCLP procedure  
4 for residuals. We're also going to be testing the  
5 residuals by themselves without doing the procedure for  
6 heavy metals. That's what we are going to do as part of  
7 the EIS process.

8 So, to answer his question generally, I am  
9 not aware of any situation where water treatment  
10 residuals have come up as being toxic.

11 MR. CAMPBELL: I think we're at this side  
12 of the room now.

13 [REDACTED]: I'm [REDACTED] of Spring  
14 Valley West. And one little comment, my kids go to Saint  
15 Patrick's and I still didn't even hear about that  
16 meeting.

17 And, as a member of Spring Valley, I am  
18 really disturbed about everything that is happening. I  
19 mean, the fact that the monofill would even be considered  
20 with the Corps having stuff, you know, buried under the  
21 ground, it is just unbelievable to me that there isn't  
22 communication within the Corps.

23 Maybe if there had been more publicity on

8-27-FE, CA

1 your part that, you know, hey, this public meeting is  
2 happening, maybe somebody from the other arm of the Corps  
3 would come to the meeting. At last, you would have found  
4 this out.

5                   Because right now you have three options  
6 and if you are saying that the monofill isn't the --  
7 isn't even really an option, why is it there? I mean, why  
8 isn't another option there instead.

9                   I am familiar enough with the process to  
10 know that, okay, you can't just sort of throw it out, but  
11 it sort of means that you all didn't do your homework,  
12 that -- you know, this Spring Valley munitions has been  
13 in the news for a long period of time. I mean the fact  
14 that it is in Spring Valley, Dalecarlia is in Spring  
15 Valley, you know why was this even considered and why  
16 wasn't this -- you are missing an alternative that maybe  
17 would have been a more viable option than any of the ones  
18 you have. It just seems like sort of a -- I'm in a  
19 quandary about it.

20                   MR. JACOBUS: Thank you. I don't think  
21 that by considering the monofill that took up the space  
22 of another alternative. As you said, in all -- all  
23 alternatives that passed through our screening criteria

1 were brought forward. We didn't have four just because  
2 we could only have four, one being a no action  
3 alternative. So would could have had four, five, or six.

4 So that isn't an issue. The fact that  
5 Spring Valley -- and we, of course, do know what is going  
6 on in Spring Valley. As I said earlier, and perhaps not  
7 clearly enough, that we wanted to try to find an on-site  
8 disposal option, wanted to further investigate what that  
9 potential would be at the Dalecarlia site. And, upon  
10 complete -- more complete review, looking at time  
11 schedules, what were the issues, and what was required,  
12 it now looks at this part of the process, we've been at  
13 this for six or seven months now, that that can be the  
14 preferred alternative. But we at least gave it a try to  
15 see whether or not it would bear out under the scrutiny  
16 that it was given to see if it could be an alternative to  
17 trucking.

18 So it was not an attempt to frighten the  
19 neighborhood or to demonstrate a lack of a general  
20 understanding. It was an attempt on our part to try to  
21 lay out some alternatives that met a full range of what  
22 we knew were concerns.

23 And, if we can't go forward with the

1 monofill alternative, we will have to continue study the  
2 other alternatives because, as I said to Deb Graham's  
3 question, we must find a workable substitute to returning  
4 the material to the river.

5 MR. CAMPBELL: We're going to switch sides  
6 now. You have been waiting there patiently.

8-28-DA

7 UNIDENTIFIED SPEAKER: I don't know how to  
8 talk into a microphone. I live in Palisades along the  
9 right-of-way. And I know that everybody thinks that like  
10 the whatever -- the pipeline thing is like -- seems  
11 really great.

12 So I am just wondering where exactly like  
13 is this going to be built, like what neighborhood this is  
14 going to impact on, because like I physically -- my house  
15 is in front of the right-of-way, which I assume would be  
16 the right-of-way that the pipe is going to be built  
17 along.

8-29-DA, CA

18 And like I know that you all think that  
19 this monofill is going to suck for you, but that pipe is  
20 going to suck for me. I am just wondering what the  
21 physical impact on the neighborhood is going to be with  
22 this like -- what neighborhood is it going to be built  
23 through if you know that.

1                   MR. CAMPBELL: I am going to ask Glenn to  
2 answer that question to the best we know of right now.  
3 Also, Patty indicated that selection is a balancing act  
4 and there is no alternative that doesn't impact somebody,  
5 so thank you for illustrating that.

6                   MR. PALEN: The short answer to your  
7 question probably is we don't know the detail of where  
8 the pipeline will go at this particular time. What we  
9 have been doing is talking to, as someone said earlier,  
10 all of the park agencies about the issues along the  
11 pipeline route. We now have to go through the process of  
12 looking at details of where the pipe could go, what the  
13 impacts would be. That ties together with how it would  
14 be constructed in those individual reaches or lengths.

15                   The feedback that we've gotten from the  
16 Park Service, I think some places, and this might be your  
17 instance, we would be installing using some type of  
18 trenchless technology, a boring type of approach.

19                   So in your immediate front yard there may  
20 or may not be an impact with the construction of the  
21 pipeline.

22                   I guess the other thing I would say about  
23 this pipeline, sort of an aside comment, the pipeline

1 that is there now is a gravity sewer. This would be a  
2 force main. It would be a pumped fluid and the pipe  
3 would always be full of water or material. Not having a  
4 headspace it would not in general -- although I'm not  
5 going to promise that there will be absolutely no odor  
6 with this. In general, the residuals should produce  
7 dramatically less odor, and essentially none, compared to  
8 wastewater and raw sewage. There are some people are  
9 very sensitive to wastewater odors. That might be an  
10 issue that is near your house. That is what is in this  
11 pipe right now that is going by your house.

12 So the pipe is a different type of pipe.  
13 It's a forced main. It is carrying a different type of  
14 material. It is also a smaller pipe. The exact  
15 alignment of where we go relative to your existing pipe  
16 is not known. It would be close, however. I would guess  
17 within 10 to 20 feet of the alignment.

18 UNIDENTIFIED SPEAKER: But it would  
19 probably go through that right-of-way.

20 MR. PALEN: Most likely that would be  
21 something that would be seriously considered, yes.

22 MR. CAMPBELL: He has been waiting.

23 : My name is  I live

**8-30-FE**

1 in Brookmont on Broad Street, right opposite the proposed  
2 facilities. For the record, I was never informed by  
3 anybody in January, February, March, April, May, June,  
4 July, and August is when I found out that you were  
5 proceeding with this project.

6 My first thing I would like to ask is the  
7 text of the ad that was published in the newspaper, could  
8 you please post that text on your website so that I could  
9 read it?

10 MR. CAMPBELL: Certainly.

**8-31-FE**

11 [REDACTED]: Okay. And the second thing is  
12 would you post also the attendance? I'm sure you took  
13 attendance at that meeting. I would like you to post the  
14 public attendance, not only who of you were present at  
15 that meeting, but who of use was at that meeting and post  
16 that on your website, please.

17 Okay. That shouldn't be difficult.  
18 That's part of your record keeping. As professionals,  
19 you keep records. Correct?

20 MR. CAMPBELL: We have records of the  
21 number of people who attended.

22 [REDACTED]: You didn't keep track of the  
23 public people? You didn't have a sign-in?

1 MR. CAMPBELL: There absolutely was. And  
2 I don't know -- I do not think that we will post that  
3 because I'm not sure that is a matter of public records.  
4 We would have to review that.

5 [REDACTED]: Why would it not be?

6 MR. CAMPBELL: Someone's personal choice  
7 as to whether they wanted to come to a meeting or not --

8 [REDACTED]: No. No, no. A game face.  
9 Okay. You said no. The answer is, no, they will not  
10 tell us who was at the meeting. Ok.

11 I'm an architect --

12 MS. HAMBEY: We don't know.

13 MR. JACOBUS: Sir, we didn't say no.

14 [REDACTED]: We will take that under  
15 advisement. Thank you for your question. We will  
16 publish for sure the --

17 [REDACTED]: The text of the --

18 MR. JACOBUS: The text of the thing.

19 [REDACTED]: Very good.

20 MR. JACOBUS: If I can get your name  
21 afterwards, I'll communicate directly with you on --

22 [REDACTED]: I would like to be  
23 communicated with as a group. In other words, this is a

8-32-NC



1 group meeting. I don't want to be talked to personally  
2 by you.

3 MR. JACOBUS: Thank you.

4 [REDACTED]: I would like to have you  
5 address us as a group.

6 MR. JACOBUS: And I will make a -- we will  
7 make a public announcement as to how we will handle the  
8 answer to your question.

9 [REDACTED]: No, that's fine. And that is  
10 a good answer because that basically makes you obligated  
11 to respond here. Thank you.

12 Now, the question -- I guess it is a  
13 statement first, a question second.

14 I'm an architect and when I have a client  
15 who has a project that is not a matter of right project,  
16 in other words one that would engender opposition from  
17 its neighbors due to the nature of the project, I am  
18 obligated to notify the adjacent property owners in  
19 writing and invite them to a public hearing. It is not  
20 an ad I put in the newspaper. I actually have to go down  
21 to the courthouse and I have to research who owns the  
22 property and then I have to notify them. And I have to  
23 provide proof that I've done that.

8-33-NC

1                   In absence of either the proof to do it or  
2 the fact of doing it could lead to the disallowing of my  
3 project being heard on the public forum. In other words,  
4 I wouldn't be allowed to go forward.

5                   Are you exempt from that kind of rigor?  
6 And I address this to HUK, or whom ever your  
7 professionals are. Who is your architect or design firm  
8 here.

9                   MR. CAMPBELL: The name is CH2M Hill.

10                   [REDACTED]: Okay. Are you exempt from  
11 that kind of rigor?

12                   MR. CAMPBELL: We have a separate kind of  
13 rigor that is laid out in the National Environmental  
14 Policy Act that requires a public scoping process. It  
15 requires public comment on a draft EIS. That is all that  
16 it requires. And all of these meetings, and we're going  
17 to be having more meetings, are in addition to that.

18                   MR. JACOBUS: You know, I don't want to  
19 publicly make an incorrect statement. I don't know. Let  
20 me tell you what I do know we're responsible for. Is  
21 when we come to the point of designing a facility that  
22 would be positioned on our property, wherever it would  
23 be, there are two agencies who we consult with which are

1 a matter of public record. One is the National Capital  
2 Planning Commission and the other is the Commission of  
3 Fine Arts.

4 So we must receive a hearing either in  
5 front of the entire board or the executive director, as  
6 that would probably be the best --

7 [REDACTED]: (Inaudible.)

8 MR. JACOBUS: So that process is very much  
9 a part of our requirement whenever we have a structural  
10 undertaking.

11 [REDACTED]: But notification of the  
12 adjacent property owners precludes all that.

13 MR. JACOBUS: I don't believe we have that  
14 requirement, but I believe in the spirit of what we were  
15 trying to do, we would try to let those adjacent to what  
16 we are going to do, especially if we were to construct a  
17 dewatering facility in the back, we certainly --

18 I think there was an error in  
19 understanding here. I don't know exactly what the  
20 gentleman was looking at, but the ideal would be to mass  
21 the building and pull it as close and tight into our  
22 facility as possible, not push it out the other way. So  
23 maybe there could have been an error on the drawing. We

1 need to look at that.

2                   But we would definitely want to look at  
3 residuals as they would be perceived by others because we  
4 recognize that while we have a duty to provide safe  
5 drinking water, we also are part of the neighborhood and  
6 part of the community. And, if we put up a structure  
7 that is going to affect you in a visual way and perhaps  
8 noise, perhaps visually through lighting, then we would  
9 want to come to a balance between our requirements of  
10 securing operational efficiency and your ability to carry  
11 on your life in an undestructive sort of a way.

12                   And so we will definitely make every  
13 attempt, both within the letter of whatever regulations  
14 that apply to us, plus going beyond that to come into a  
15 level of understanding with those who live adjacent to us  
16 on what we're doing because we think that is the right  
17 thing to do.

18                   [REDACTED]: I appreciate that. I thought  
19 that. I only can suggest that you actually do it. In  
20 other words, that there actually be the dialogue with us,  
21 because the opposition that you are sensing here -- and I  
22 hope you're sensing it -- is because the ball has been  
23 dropped by your professionals, by your staff. Whoever

1 advised you that this was the way to develop this  
2 project, obviously has an alternative -- or an ulterior  
3 motive or they are incompetent. And I don't know what it  
4 is.

8-34-GA, GE

5 The final thing I would like to ask is the  
6 truck estimates in terms of the number of vehicles that  
7 go in and out, does that include the coagulants and all  
8 of the other materials necessary to create the residue or  
9 is that just the trucking for the removal of the residue?

10 MR. CAMPBELL: That's is coagulants also.

11 [REDACTED]: My question --

12 MR. JACOBUS: Let me just tell you what I  
13 think the answer to your question is. There have been no  
14 -- that is the additional trucking that would be required  
15 to remove the solids. The coagulant that comes into the  
16 process now and goes into the basin, there will be a  
17 little bit of additional coagulants to coagulate the  
18 solids from this form to the other which might add a  
19 small portion to the alum we already receive on-site, a  
20 small portion of the lime. Those lines that show the  
21 trucking away of the disposal of solids.

8-34-GE

22 [REDACTED]: And what about the balance of  
23 the industrial gases and the balance of the industrial

1 chemicals that we take delivery of right now, will that  
2 increase or is that going to remain the same?

3 MR. JACOBUS: That will remain constant  
4 and the only addition would be a little bit more lime and  
5 a little bit more of some kind of coagulant to get them  
6 to solid and get them ready for whatever kind of process  
7 that we're going -- that, comparatively speaking to the  
8 volume of the solids having to be taken away, would be  
9 very, very small.

10 [REDACTED]: So the overall truck traffic  
11 as represented by your traffic studies presented in your  
12 public documents represents the total number of vehicles  
13 that this would create over the next 20 years? That's a  
14 fact?

8-35-IB

15 MR. JACOBUS: Well, our water production  
16 levels are fairly constant. As the District has more  
17 citizens moving in, we have to produce more water for the  
18 increasing demand, that demand is rising pretty slowly,  
19 so we don't expect to produce many more residuals three  
20 years from now than we do now. But we are putting a  
21 little bit of factor in there for increased production so  
22 that the 20 trucks or so -- the 10 to 20 trucks, little  
23 trucks, that is really based on what we would haul out in

1 the way of residuals.

2 In that slide, we have not included any  
3 additional trucks coming in. We can certainly -- we will  
4 have that. That is very important. I appreciate you  
5 bringing it up. It will be small, but we will certainly  
6 account for additional chemicals having to come in to  
7 create the solids.

8-36-KA, KC

8 [REDACTED]: And, as part of that, you will  
9 also describe the kinds of chemicals that are coming in?

10 MR. JACOBUS: Oh, of course, absolutely.

11 [REDACTED]: Okay. Thank you.

12 [REDACTED]: My name is [REDACTED]  
13 I represent the Spring Hill Civic Association in  
14 Bethesda. The gentleman ahead of me asked some of the  
15 questions I have about trucking, because our neighborhood  
16 borders on at least one, if not more, routes that you  
17 will be taking to get rid of these residuals.

8-37-GE, GA

18 And my concern was that your slide shows  
19 right now a current need of nine trucks. Does that mean  
20 nine trucks coming in and nine trucks going out?

21 MS. HAMBEY: Yes.

22 [REDACTED]: Or are we just talking nine  
23 trucks total?

1 MS. HAMBEY: Nine round trips.

2 MR. JACOBUS: Tine round trip trips.

3 : Nine round trips.

4 Plus, I think it is very interesting that  
5 the slides show just up to 20 years. Does it stop after  
6 20 years or is this a long-term -- having a long-term  
7 effect on my neighborhood, because we have increased  
8 noise pollution, increased air pollution. And I think  
9 our community will be concerned about what kind of  
10 compensation do we get for having to suffer with this  
11 increased noise and air pollution.

12 MR. JACOBUS: As the water production goes  
13 up -- the 20 years -- you said in 20 years, do you think  
14 there will be more water being produced to have more  
15 solids. But let's be perfectly clear, that once we start  
16 collecting the solids we will always collect the solids,  
17 so there will always be the addition trucks in perpetuity  
18 as long as the water treatment plant continues to  
19 operate, the solids will have to be removed. If the  
20 decision is remove them by truck, every day, five days a  
21 week --

22 : Starting at what time of the  
23 morning and ending at what time?

8-38-GA,  
GC, IB



1 MR. JACOBUS: Oh, that is completely  
2 undetermined. One of the things we will do in our  
3 analysis is to evaluate the routes through D.C. and other  
4 jurisdictions. Most likely that trucking will be during  
5 the day. Obviously, we would look at -- if we get to  
6 that one of the factors to look at is how will that  
7 trucking be as gentle as possible on rush hour and other  
8 times. We had a great experience with this a few years  
9 ago when we did a major dredging of the Dalecarlia  
10 Reservoir, just the solids. We put out literally  
11 thousands of trucks over a couple-year period and we  
12 worked very closely with the neighbors on routing and  
13 time and cleanliness and quality of the trucks. And all  
14 of that will be considered if the trucking option is  
15 eventually accepted.

8-39-GA, NC

16 [REDACTED]: So you will contact all of  
17 the neighborhoods that would be affected if the trucking  
18 option is the one considered?

19 MR. JACOBUS: Well, I don't -- I don't  
20 know if that would -- because these routes, how far out.  
21 We certainly want to maintain a dialogue with the  
22 immediate area in what we would service between here and  
23 the beltway on the Maryland side along these routes and

1 we would be very happy to communicate with all of the  
2 neighborhood associations along all of those routes to  
3 keep them apprised of what we are going to do.

4                   Once the solids get to the beltway, then I  
5 don't think we would necessarily go beyond that.

6                   [REDACTED]: I just want the neighborhood  
7 safe.

8                   MR. CAMPBELL: Glenn, do you want add  
9 anything to the trucking issue and the 20 year time?

10                   MR. PALEN: I think the only thing I can  
11 just tell you -- The only comment I'll add, which is a  
12 brief one. The 20 years is a planning period that we  
13 have used for the draft EIS to examine all of the  
14 alternatives. It is a fairly common planning period for  
15 any type of project. It is certainly not meant to imply  
16 that something changes after 20 years. It is just the  
17 period of time we have chosen to examine.

18                   MR. CAMPBELL: Switch to the other side of  
19 the room, sir.

20                   [REDACTED]: My name is [REDACTED]  
21 and I live in the Westmoreland Hills area. I just want  
22 to clarify and make sure it is clarified, I'll attempt  
23 to, and then ask the question about the critical meeting

1 in January 2004 which you advertised, because I'm not  
2 sure the record was accurately made.

3 I would like to ask everyone here, how  
4 many of you actually received notice to come to a meeting  
5 in January of this year, at this scoping session? If you  
6 received notice, raise your hand.

7 How many of you did not receive notice of  
8 that meeting?

9 You said most people did. It is a fair  
10 characterization, I think, that no one in this audience  
11 received notice of that meeting.

8-40-NC

12 UNIDENTIFIED SPEAKER: I don't recall if I  
13 did or didn't.

14 [REDACTED]: There is one person who  
15 doesn't recall.

16 MR. JACOBUS: I will say that the  
17 political representatives offices in this room all  
18 received notice of the meeting as part of our duty and  
19 our desire to communicate with the public officials at  
20 the very beginning of the process. But you're correct, I  
21 am sure that on an individual level a letter was not sent  
22 to every individual in this room.

23 MR. AARONSON: No, that is not what the

1 record is, sir, because no one said they got the record  
2 when I asked to raise your hand if you got notice. I  
3 didn't see anybody raising their hand.

4                   Would you please raise your hand again if  
5 you actually received notice of this January 2004  
6 meeting? Please raise your hand.

7                   I know one person can't recall. If you  
8 actually received notice.

9                   Now, sir, I don't see any hands up.

10                   [REDACTED]: His point is there are people  
11 in politics, political representatives or people who work  
12 for representatives in this room who are not raising  
13 their hand. But to be fair and make sure his question is  
14 put down correctly.

15                   MR. JACOBUS: We understand his question.  
16 Go ahead.

17                   [REDACTED]: Now, my other question.  
18 How many persons in this room actually attended that  
19 meeting in January 2004? One, two.

20                   And I believe your website shows 14 or 15  
21 people attended. You just said you thought it was 20. I  
22 know that is a minor difference, but just in terms of  
23 making the record clear.

1                   But then my follow up question is, you say  
2 you advertised. Do you feel that was effective notice  
3 given the turn out and the importance of that meeting?

4                   MR. CAMPBELL: I think for the stage in  
5 the project it was an appropriate notice. Whether it was  
6 able to attract enough people because the project was  
7 interesting at that time, clearly that wasn't the case.

8                   [REDACTED]: But would you say it was  
9 effective notice?

10                  MR. CAMPBELL: I will say it was  
11 appropriate notice.

8-40-NC

12                  [REDACTED]: So you won't answer whether  
13 you think it was effective.

14                  MR. JACOBUS: I'll answer, sir. I would  
15 say it was effective, because look at what we're doing  
16 here tonight, we're continuing as we -- as we narrowed  
17 the alternatives, we have broadened the interest. And so  
18 we went to that meeting --

19                  We went to that meeting with no -- with no  
20 set of predetermined alternatives. We were looking to  
21 see -- we wanted to make a public notification. Which we  
22 have done this process before, in 1976 and in 1994. We  
23 had a very extensive collaboration over the -- some of

1 the trucking options. We wanted to get away from just  
2 pure trucking. We wanted to start the process over.

3 As we -- we received a couple of ideas at  
4 that meeting and that generated a total of 26 and then we  
5 starting making some of the -- making it more concrete.

6 The first meeting was very embryonic. It  
7 was just, okay, we're here, we've got solids to get rid  
8 of and here is our process, we want the people to  
9 understand this. It is not surprising to us that we  
10 didn't get a huge turn out to help us, direct us, or  
11 solve the problem at that point.

12 And so the point that we're here tonight  
13 and we are focusing on some specific alternatives,  
14 getting a lot of specific input on things that are  
15 feasible, I think is quite effective and appropriate and  
16 it is very helpful to us and the people who have to be  
17 responsible for this project.

18 : But in terms of  
19 effectiveness and appropriateness -- in terms of the NEPA  
20 process that you showed us these slides again for, wasn't  
21 the January 2004 meeting the critical and perhaps only  
22 formal meeting at which citizens could attend where you  
23 identified the 26 and then narrowed it down to 3? So,

8-40-NC, NB

1 when you narrowed it down to three, all of these meetings  
2 right now, it's too late because you have narrowed it  
3 down to those three. So wasn't the critical NEPA meeting  
4 that January 24th meeting in terms of identifying the  
5 number of options, the options that were left out, and  
6 then in terms of narrowing it down to three options?

7 MR. JACOBUS: That's not what we did. The  
8 January meeting was a critical meeting because it was the  
9 first official meeting -- required meeting of the NEPA  
10 process for an undertaking such as we were about to do,  
11 but there were no alternatives at that meeting. We were  
12 just looking for ideas. And, from the couple of ideas  
13 that we got and we put our ideas together and then  
14 screening them -- because the screening criteria really  
15 guide us to meet the operational needs of the treatment  
16 plant.

17 And the state we're in now where we are  
18 looking through all of the EIS objectives to determine if  
19 these alternatives which are feasible to meet the  
20 projects purposes and needs, how do they affect the  
21 public. And that is why tonight is so valuable to us.  
22 If you think we have missed an alternative, we are quite  
23 open to the idea, I don't know if you were here at the

1 very beginning, sir, but we said we will continue to  
2 receive alternatives to be studied in the process to be  
3 added to the EIS up through the 15th of November.

4 So I think we certainly caused a lot of  
5 people concern and interest. And I think that I'm  
6 unhappy about the concern, but I'm very gratified about  
7 the interest. And we look forward to continuing to work  
8 along here.

9 [REDACTED]: So you're giving a month to  
10 six weeks to suggest these alternatives. Would you be  
11 willing to reopen the process and get this wonderful  
12 input that you're so happy to have and find out if there  
13 is any in addition to the 26, if there is other  
14 alternatives that should be there, to discuss your  
15 screening criteria that you used to narrow it down to 3  
16 and to see if there is any other formal alternative that  
17 should be part of the formal impact statement that is  
18 already largely done because you said you're going to  
19 post it by the end of October or early November. Are you  
20 willing to restate the NEPA process at which these  
21 alternatives are reviewed and the screening process --

22 MR. CAMPBELL: Let's just take one answer  
23 to this and respect everybody else and the woman who has

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8-40-NA, NB



1 been standing there very graciously that has to be her  
2 turn.

3 I will let you answer this question.

4 MR. JACOBUS: The answer is, no, we're not  
5 going to reopen the process. The original scoping  
6 process allowed and offered the public a 30-day period to  
7 give their comments as we went in. We are now giving you  
8 more than that right now and so I think that if there are  
9 good ideas, let's get on with it and hear them so we can  
10 do the right thing by the community.

11 [REDACTED]: I'm [REDACTED]. I live  
12 in American University Park and I work on the street by  
13 the center, a medical building.

14 And my question is regarding safety. I am  
15 very concerned about the safety. I'm very happy to have  
16 the people discuss other aspects of it, the building,  
17 trucking, et cetera. But mine is very safety. I heard  
18 that aluminum sulphate is not toxic. I'm a little bit  
19 concerned because I know that it is toxic. It is not  
20 highly toxic, but it is toxic. Of course, the  
21 concentrations are important. And this building,  
22 whatever you are going to do, the pipeline, and trucking,  
23 et cetera, is going to have a lot of concentration of

8-41-KC, KA

1 aluminum sulphate plus other such substance, like the  
2 minerals.

3 In the kind of climate of a disaster, the  
4 last few years when we had a major one national wise and  
5 local wise and kind of anticipated possible natural or  
6 manmade disaster, what is going to happen when high  
7 concentration of those substances get -- either because  
8 pipeline gets broken, either because trucking gets in a  
9 car accident on a local road or in highway or because of  
10 something like a bomb onto this other facility, that is  
11 going to be a disaster.

12 MR. CAMPBELL: I'll start the answer to  
13 that question. I may not be able to complete it. I'm  
14 looking at you. Think about that for a moment.

15 The whole issue of the toxicity of the  
16 coagulants. And rather than look at existing studies or  
17 do the studies ourselves to understand both the acute  
18 toxicity and it's chronic toxicity, those are two  
19 different things and what would the effect be of a  
20 disaster or a truck spill or a pipeline spill or  
21 something like that, and if there was a pathway to  
22 exposure, people who have contact with or ingest it, what  
23 would that mean for people. We are trying to understand

1 that. We don't know the results at this point of the  
2 TCLP analysis and heavy metals analysis.

3 Do you have anything to add to that  
4 answer, Ed, I'll look to you. Or Phil.

5 MR. HECHT: My name is Phil Hecht and I  
6 have been involved in drinking water for over 20 years.  
7 And you raised a good concern.

8 The City of Newport News, I'll tell you,  
9 has been using aluminum sulphate for many years. They  
10 currently land apply their aluminum sulphate in a  
11 (inaudible). They did extensive surveys over the years  
12 to determine the impacts, not only of the sulphate but  
13 also of any other by-products -- and there are some in  
14 very minute traces, aluminum sulphate, not only in  
15 (inaudible), but also the ground water in the surrounding  
16 environment.

17 And through these careful studies, they  
18 found that there was really no impact at that particular  
19 site, negatively, long-term to any of those species that  
20 they took at look at, not either from an acute or a  
21 chronic perspective.

22 There are other places, Portsmouth,  
23 Virginia, which has lagooned their residuals for many

1 years and also gone studies.

2 I was somewhat peripherally involved for  
3 the City of Chesapeake, Virginia, who also took a look at  
4 sulphate leaching into the ground water. The Department  
5 of Environmental Quality asked Chesapeake to take a look  
6 at that. They did. They found the levels were a little  
7 bit high, not excessively so, so the City of Chesapeake  
8 went forth as a good steward and lined their lagoon and  
9 came up with another plan.

10 But the second part of your question I  
11 think is what happens if there is a spill. Every water  
12 treatment plant has to come up with what they call a  
13 Hazardous Response Plan. And a part of that plan, we  
14 have to take a look very closely to what happens to  
15 chemicals in transit and the fate of those chemicals and  
16 how best to respond to those.

17 So, in this particular case, the  
18 Dalecarlia water treatment facility already has a similar  
19 plan in place. And that would be the major problem. The  
20 problem would not be so much the transporting of the  
21 solid materials.

22 : I think you also need the  
23 communication, if you can put that on the website for us,

8-42-NC,  
KA, KC

1 what he is talking about.

2 MR. CAMPBELL: Yes, we can do that.

3 : My name is

4 and I'm a resident of the Overlook community.

5 And, first, I would like to say that I did  
6 not get anything in January. And I believe that the  
7 persistence of our homeowners' association, which is a  
8 registered public entity, also did not get any notice.  
9 And I would like to have been informed earlier because I  
10 think I would have liked to have listened to and heard  
11 the other alternatives, the 26 alternatives. I feel very  
12 cut out and very limited by this process.

13 I also am not an engineer. So I can't  
14 read these documents and come up with alternatives. I  
15 would have to hire an engineer. And I know I can't  
16 afford to hire CH2M Hill. You know, it costs hundreds of  
17 thousands of dollars to hire these kind of engineering  
18 consultant services.

19 So I feel like it is a little bit  
20 disingenuous when you say to us, oh, you know, we're  
21 opening the process now for your solutions. This takes a  
22 while. You have had a long time to evaluate all of these  
23 problems. You have had years.

1                   And I feel like we're being hamstrung. We  
2 are given this narrow little window in which we're  
3 supposed to come up with the solution. That doesn't seem  
4 fair to me.

5                   MR. CAMPBELL: I appreciate your comment.  
6 At the scoping meeting that people are so very concerned  
7 about, we did not have 26 alternatives and we didn't  
8 discuss any alternatives. But all of the other aspects  
9 of your question, or your comment, are valid and I'm not  
10 going to try to clarify those at all.

11                   [REDACTED]: Okay. But, even so, to come  
12 to one meeting and -- did anybody come prepared with an  
13 engineer to say what it is you should do with your  
14 residuals? I mean most citizens would come and say, I  
15 don't know, not in my back yard, pretty much. I mean, I  
16 can't imagine you got serious technical input.

17                   MS. HAMBEY: Actually, we did.

18                   MR. JACOBUS: Well, we were -- it is our  
19 responsibility as the engineers, as the water treatment  
20 operator, to derive from our process to keep the safe and  
21 reliable and cost-effective production of water going,  
22 and it is really our responsibility to come up with  
23 alternatives. I mean that is our part of the process.

8-43-NB

1                   We wanted to alert the public at large  
2   that we're initiating the process and then we wanted to  
3   inform you through this environmental impact statement  
4   process of what we are considering and how they may  
5   affect you. I do not --

6                   I apologize if you have taken from us  
7   that, well, we just want to step back from this and say  
8   we're looking to you for alternatives. No. We're  
9   looking -- we're trying to develop the very best  
10  alternatives we can, but we do respect the fact that  
11  certain citizen input is valuable to us, have you looked  
12  at the idea of doing such and such. And then we can come  
13  back and discuss that with the development team.

14                  I also realize that you don't have the  
15  time to -- and we wouldn't expect necessarily for you to  
16  read through hundreds and hundreds of pages. But we  
17  certainly will take the time here this evening to go over  
18  all of the 26 in detail. We'll be happy to do that.

19                  But what I'm offering is if someone does  
20  have something that wasn't among the scheme that we  
21  looked at and, in fact, we overlooked something -- We  
22  have tried to do the most responsible job based on many,  
23  many years of doing this.

1                   Also, there are about 20,000 water  
2 treatment plants in the United States. We're coming to  
3 this very late in the process, this being not putting  
4 solids back in the river. And so through the industry  
5 association, the American Waterworks Association, the  
6 American Waterworks Research Foundation, there is all  
7 sorts of historical and industry-type information on the  
8 treatment of residuals.

9                   And so it is a neighborhood issue because  
10 these are your back yards. And so we're trying to be as  
11 gentle as possible in our back yards, realizing that we  
12 are going to be required to add to our existing treatment  
13 process and we want to do it in a way that is gentle to  
14 the neighbors, is gentle to the environment, yet still  
15 meets our process. And so if there is something you  
16 think we've overlooked -- I don't expect you to hire a  
17 consultant.

18                   We have hired the engineers. Our  
19 engineers are at everyone's disposal to evaluate  
20 alternatives that might be out there that we've missed in  
21 someone else's experience. We think we've done a very  
22 thorough job in looking at the various alternatives of  
23 taking it away as a liquid, taking it away as a solid,



1 taking it away as transformed solid of some kind. And we  
2 are very limited. This is a waste product problem. This  
3 is a solid waste problem. We know what the material is.  
4 In changing its form, it is either going to be a liquid  
5 or a solid. So there is a pretty thick range of options.  
6 The question is how to do it gently in the neighborhoods.  
7 And so that is kind of where we are.

8 MR. CAMPBELL: And two alternatives that  
9 we looked at did come from the scoping process. And one  
10 was the barge alternative that a man mentioned earlier  
11 today. And then there was another alternative we looked  
12 at, which essentially a plasma technology to turn the  
13 residuals into a useful product. And we examined that as  
14 well.

15 [REDACTED]: I also want to understand  
16 something a little bit better about -- you had a slide up  
17 earlier this evening about the impact of the weapons  
18 removal that goes on in Spring Valley and that might  
19 postpone the monofill alternative.

20 The slide had some very interesting  
21 wording and I wanted to get some clarification. It said  
22 that -- that you would be unable to go forward with the  
23 monofill by itself in the schedule that doesn't allow any

8-44-CA, EA,  
GA

1 kind of investigation of whether there is weapons there  
2 in 2008.

3 Does that mean that you would be  
4 considering a combination of trucking and sludge dump?  
5 That you would, you know, truck for a few years and after  
6 they finish excavating or investigating whether or not  
7 weapons removal is necessary before imposing a sludge  
8 dump?

9 MR. CAMPBELL: Do you want to answer that?

10 MR. JACOBUS: I think in the NEPA process  
11 that we're going through the final administrative  
12 milestone is a record of decision. And that record of  
13 decision we believe should be a decision and not a tier,  
14 a little of this and a little of that, or a combination.

15 So given the fact that we think we should,  
16 in this process, end up with one alternative, what that  
17 slide says, that the monofill by itself could not be an  
18 alternative because of the timing; therefore, it would  
19 have to be done in conjunction with trucking.

20 In our document called the description of  
21 proposed action and alternatives, we intentionally put a  
22 statement in there that would give us the opportunity to  
23 bring back to the public a combination of alternatives.

1                   It is not our intention at this time, as  
2 we stand here tonight, it is not our intention to do  
3 that. It is our intention to continue to evaluate the  
4 monofill on all of these other environmental merits just  
5 so we completely understand that. But we think the  
6 monofill is blocked from going ahead at this time. Why?  
7 The weapons issue.

8                   And that is why -- I think I said earlier,  
9 as we stand here tonight, I believe it is -- I can say  
10 what we know right now is that it would not be the  
11 preferred alternative.

12                  So the slide was not meant to be tricky,  
13 but it was meant to kind of -- you saw, in a sense, that  
14 we move through the process we're going to have to be  
15 looking at it. If for some reason some other part of the  
16 federal government decided to accelerate the Spring  
17 Valley process over the next six months to a year or two  
18 years, it might be possible that that would become more  
19 viable. We don't see that happening.

20                  We are not requesting as the water agency  
21 to make that happen.

22                  [REDACTED]: If I may, one last question.  
23 Before when you were explaining the chemical composition

8-45-KC

1 of the dewatered sludge, you were saying that that is  
2 something that you would study and make public before  
3 moving forward. Does that mean you have not ever studied  
4 it yet? Do you know yet what the chemical composition  
5 is?

6 MR. CAMPBELL: We have not performed  
7 recently this TCLP procedure with respect to this  
8 process. I believe it has been done in recent history.

9 MR. JACOBUS: In '94.

10 MR. CAMPBELL: Ok, in '94. It hasn't been  
11 done recently for this project.

12 MR. JACOBUS: We know --

8-46-KC

13 [REDACTED]: You are aware that the  
14 Wilderness Institute said that the sludge contained  
15 mercury, arsenic, and lead. And that is a matter of  
16 public record. And I was just wondering if you ever had  
17 to do a study yourself to rebut that.

18 MR. JACOBUS: Absolutely, because  
19 remember, please everyone, that the -- currently this  
20 material is discharged back to the Potomac River. And we  
21 have one of these National Pollutant Discharge  
22 limitations and NPDES permit to do that. And, in that  
23 permit, we do analytical analysis and report to the EPA

1 what is present. I am very much aware of what is being  
2 reported in the press about minute trace materials that  
3 are in the Potomac River that, of course, would come back  
4 and go back to the river as part of this. This is not --  
5 the contaminants and that are not part of our treatment  
6 process. It is just stuff that was in the river.

7 But EPA, in their permit process, is  
8 completely aware of that. But, since this is a new  
9 project, it is both prudent and required that we provide  
10 a new analysis. The subject has been looked at at least  
11 twice before, both in 1996 and -- excuse me, 1976 and  
12 1994 we got to a design of what we call 35 percent design  
13 or partial design of the process and then it was stopped  
14 because EPA decided to issue -- or not require a permit  
15 that would prohibit us from returning the materials to  
16 the river.

17 So, yes, we will -- we will publish all of  
18 that as part of the analysis. But, based on the history  
19 and there is nothing that has changed in the river  
20 substantially or our process at all, I would not expect  
21 any toxicity issues to be associated with what is in that  
22 jar.

23 : So those studies are

1 available to the public?

2 MR. JACOBUS: Sure. Sure.

8-47-NC,  
KA, KB, KC

3 [REDACTED]: And are they going to be put  
4 on the website? Because I think that is a lot of  
5 people's concern here.

6 MR. CAMPBELL: We really have to  
7 respectful of somebody else here.

8 MR. JACOBUS: We can take care of that.

9 [REDACTED]: Certainly. Thank you for  
10 answering my questions.

11 [REDACTED]: My name is [REDACTED] and  
12 I would like to return to the question of the public  
13 involvement. Because, as I understand, and I appreciate  
14 that your permit does not allow you to discharge into the  
15 river.

8-48-FB, MA

16 But as I understand the timing of how you  
17 comply with that is, in fact, something that you  
18 negotiated with EPA and is, in effect, a negotiated time  
19 frame, which is that could be renegotiated because it is  
20 not in the statute itself.

21 And I think that we hopefully have  
22 demonstrated to you tonight -- and in the prior meeting  
23 there were 208 members of the public turning up for the

1 prior meeting -- that with adequate and effective notice  
2 the public does come to your meetings. We have now had  
3 over 500 people comes to these meetings.

8-49-NB

4 That was not the case in January because I  
5 don't believe that you had either -- you were complying  
6 with the spirit or the letter of the law in developing  
7 that initial meeting. And wouldn't it be appropriate to  
8 believe that this would be the beginning of the scoping  
9 process, because we would like to comment on the  
10 screening criteria being used, because we don't feel the  
11 screening criteria used was appropriate. The  
12 stakeholders were not considered as a part of the  
13 screening criteria. And I believe that one of the  
14 objectives of this project which you published in the  
15 Federal Register said the stakeholders -- the impact on  
16 the stakeholders is something to be considered. That was  
17 not considered in the project screening process. So  
18 wouldn't it be appropriate for us to comment on the  
19 screening process, to listen to the alternatives that are  
20 coming forward here.

21 We want you rescreen these alternatives  
22 and come up with actual alternatives that would make  
23 sense. You have already said tonight the three that you

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1 are trying to force us to consider are already now being  
2 narrowed to one. This is not suppose to be a narrowing  
3 process. I thought the public involvement is suppose to  
4 bring ideas to you, which you then consider. And then  
5 you explain to us how you considered our ideas and how  
6 they were taken into consideration.

7 So I would insist that we backtrack to the  
8 January meeting, the public is now beginning to be  
9 involved and we should rescreen all of the alternatives.

10 MR. CAMPBELL: There two comments or  
11 questions that you had. One was the ability to  
12 renegotiate the permit, the deadline from EPA, and the  
13 other one was can you screen -- or reopen the screening  
14 process.

15 I think that we have.

16 : Or start the screening  
17 process.

18 MR. CAMPBELL: Or to start the screening  
19 process. I apologize for putting different words in your  
20 mouth.

21 I think we have addressed both of those  
22 questions tonight. Do want to make a summary statement  
23 to either of those effects, Tom, or not?



1 MR. JACOBUS: Well --

2 MR. CAMPBELL: A summary.

3 MR. JACOBUS: Thank you. We have  
4 consulted with the EPA. We believe -- I believe as the  
5 permittee and as the responsible party under the  
6 Compliance Agreement that those are firm dates. And we  
7 are moving to comply with certain dates as a matter of  
8 enforceable action.

9 I have heard others and yourself tonight  
10 very articulately saying that you believe that the  
11 scoping and screening process could have been done  
12 differently.

13 We have gone from a completely open mind  
14 to a series of 26 alternatives to these 3, meeting  
15 screening criteria that was designed by us to meet our  
16 operational needs to preserve the reliability and  
17 redundancy of the project. We believe it is our  
18 responsibility as the operator to shape the alternatives  
19 to be considered in terms of what works for the plant.  
20 And that is what we tried to do to get to this point  
21 tonight and for the last several weeks, we have brought  
22 now to the public what works for the plant, but now we're  
23 trying to figure out what works for the public and we

1 need the public's involvement in that.

2 So that is why I believe that we have met  
3 the letter and spirit and I'm sorry that we don't agree  
4 on that point, but I tried to explain that a couple of  
5 times this evening.

6 [REDACTED]: If I could just say, you  
7 have had nine years to study this and now you are asking  
8 us to give our alternatives by the 15th of November as I  
9 understand. I also do not believe that the screening  
10 criteria is as narrowly construed as you are saying it  
11 is, Tom. I don't dispute how your plant operates, but I  
12 think it is how you operate as a public citizen.

13 [REDACTED]: I came late. My name is  
14 [REDACTED] and I live across Westmoreland Circle. I  
15 don't know the name of the community I live in because it  
16 has always been there.

17 You're down to trucking, pipe, and  
18 monofill?

19 MR. CAMPBELL: That's correct.

20 [REDACTED]: And you explained and I  
21 think tried to show the photographs and stuff on the  
22 visual affect of the monofill and so forth, minimum, and  
23 I appreciate that.

8-50-CA,  
DA, GA

**8-51-CA**

1                   Have you talked about the environmental  
2 effect of the monofill? Anything? Thirty acres of  
3 woodland?

4                   MR. CAMPBELL: That is all part of what  
5 we're looking at in the draft EIS. And so we have had  
6 people, for example, completely -- not completely, but  
7 look through that site the best the we are able to do  
8 given current safety concerns about the biology and the  
9 ecology of the area and the trees. And so all of that is  
10 taken a lot at in tremendous detail.

**8-52-GA**

11                   [REDACTED]: And so you don't think that  
12 adding 780,000 car miles a year to this area affects the  
13 air quality?

14                   MR. CAMPBELL: Air quality is something  
15 that we're looking at, very much so.

16                   [REDACTED]: And the flooding? My church  
17 has a little 50-car gravel parking lot. We're not  
18 allowed to pave it because of the effects of flooding on  
19 the stream, watershed. And you are going to pave 30  
20 acres?

21                   MR. CAMPBELL: Surface water resources,  
22 geology and hydrology is all a part of this evaluation.  
23 So any process like this, we look at what are the impacts

1 that could come from the action and could those impacts  
2 be reduced or mitigated in any way. And all of that is  
3 put forth for everybody to read as a draft statement.

8-53-FB

4 [REDACTED]: When is that going to  
5 happen?

6 MR. CAMPBELL: Toward the end of the year,  
7 around the end of the year.

8 [REDACTED]: Yeah, but you're making a  
9 decision on November 15th.

10 MR. JACOBUS: No, no. No.

11 MR. CAMPBELL: No, no. November 15th was  
12 the date set by which we could receive extra alternatives  
13 to evaluate. And, frankly, that date was put on because  
14 we have to move forward to develop the project because of  
15 the scheduling that we talked about at length.

16 So that is a different date than the draft  
17 EIS, which I will emphasize is a draft document now. It  
18 then goes into a public comment period to see what people  
19 think about it. And all of this stuff, the air quality  
20 -- the air quality measurements, the noise measurements,  
21 biological resources, all of that, is looked at very  
22 carefully.

23 MR. JACOBUS: Can I just say, one of the

1 things that we committed to do as a result of the last  
2 meeting and maybe you didn't receive the letter, is we  
3 want to hold a series of these meetings. We're not  
4 prepared to announce tonight because we haven't heard all  
5 of the comments, we don't know how much it is going to  
6 take to -- to kind of reconvene with more information.  
7 But you will not have to read for the first time when  
8 that draft environmental impact statement is published to  
9 know what is in there. We will hold successive meetings  
10 to -- to give you snapshots of where we are in this  
11 process. The work is not all done. It is ongoing. All  
12 of these resources are being looked at and we will  
13 continue to bring to the community what we're finding and  
14 then it will all be put together in a final report, but  
15 because you are all stakeholders, neighbors, or whatever  
16 your interest may be, we want to allow you to watch the  
17 process unfold in the most orderly way we can find to  
18 make use of your time and bring you information that we  
19 think is of interest to you based on what you have told  
20 us.

21 : Thank you.

22 MR. CAMPBELL: Sir.

23 : My name is

8-54-NB, NC

1 president of the Spring Valley West Homeowners'  
2 Association, approximately 60 homes, directly across the  
3 street from the Dalecarlia. None of our people got  
4 notified of this and I would like to ask, how many of the  
5 neighbors, home associations, did you all contact or send  
6 to the residents?

7 MR. CAMPBELL: At which point in the  
8 contact process, because we have described the letters  
9 that have gone out?

10 [REDACTED]: And second is the delta that  
11 you're talking about would be temporary. For us it would  
12 be permanent, so I think you just have to think about  
13 this. Thank you.

8-55-NC

14 [REDACTED]: My name is [REDACTED]. I have  
15 a question about, first, the website. We attempted to  
16 use it and got a response that your voucher has expired.  
17 I don't know if anybody else has encountered that.

18 MR. CAMPBELL: Was this very recently? We  
19 apologize if that is the case.

20 [REDACTED]: My wife tried to do it. It's  
21 hearsay, but she told me your voucher has expired.

22 MR. CAMPBELL: Excuse me. I want to make  
23 sure we heard it. It's the voucher. What was the

1 specific response to that.

2 [REDACTED]: It said the voucher was  
3 expired, your voucher was expired.

4 MR. CAMPBELL: We'll fix that.

5 [REDACTED]: And leads me into the next  
6 question, which is the question of odor at a monofill.  
7 When this material becomes wet, as might happen, does it  
8 emit an odor?

8-56-CA

9 MR. CAMPBELL: Glenn, do you want to talk  
10 about that?

11 MR. PALEN: Can you put up the UOSA slide?  
12 We're going to pull up some slides here in  
13 just a second that are relevant, I think, in that they  
14 relate to a local Northern Virginia similar facility, not  
15 exactly the same, but similar.

16 In general, I would say the odor that is  
17 going to come off of this is going to be more of what I  
18 call an earthy odor, than a hydrogen sulphate type odor.  
19 It would be more of a biological sanitary sewer type  
20 odor. And it is also going to be less intense than what  
21 I would think of an odor anticipated with, say, a  
22 wastewater treatment plant or something like that. A  
23 typical odorous facility most people think of when they

1 think of the treatment plant type odors.

2                   Again, I said earlier I could not  
3 guarantee that this monofill would not produce any odor.  
4 I don't think anybody could.

5                   Would it be an odor that is objectionable?  
6 No. In general it is not because of the nature of the  
7 material. It does not include a large amount of organics  
8 and it is not a highly biologically active waste. It is  
9 dirt.

10                   Now, dirt, by the way, has an odor. When  
11 it gets wet, it does smell. That would be a component of  
12 the odor coming off the monofill as would whatever  
13 biological activity is occurring as the natural organic  
14 material present in the river water is broken down by the  
15 bacteria present in the soil.

16                   So that is the type of odor that it would  
17 have.

18                   What I want to do now is just make a few  
19 comments about a neighboring facility that is similar  
20 because I know this has been a question that has come up  
21 and it is sort of related to this odor comment.

22                   The question posed here is are residuals  
23 disposed in facility elsewhere. The answer is yes. I



1 wouldn't say that it is thousands and thousands of these,  
2 but it is done.

3                   There is a facility in Centreville,  
4 Virginia. On this slide is the Upper Occoquan Sewage  
5 Authority, a wastewater treatment plant that treats  
6 wastewater to near drinking water standards. They have a  
7 monofill. That monofill contains lime solids from the  
8 tertiary treatment process for wastewater. So it's not  
9 alum, but it is not that different from alum either  
10 because it's treating tertiary wastewater where mostly  
11 the biological activity has already occurred in that  
12 treatment process.

13                   : How many acres is that?

14                   MR. PALEN: That is about a 40-acre  
15 facility in total footprint.

16                   And you can see there it has got a green  
17 component that is sort of the mounded up waste and then  
18 next to that is a lower area where there has been some  
19 rainwater that is pooled. That rainwater in this case is  
20 then collected and pumped at a constant rate back to the  
21 wastewater treatment process. So that is why there is a  
22 pool of water there.

23                   But that whole area is the monofill.

1                   You can also see in the upper right corner  
2 of the picture that there is a residential subdivision  
3 right there and it is literally across the road, a two-  
4 lane with at most a third turning lane in the middle, and  
5 these homes are very close to the monofill.

6                   We did recently talk to the wastewater  
7 plant and we said what is your operating history with the  
8 monofill, what have been your complaints, what have been  
9 the observations of the public.

10                  The answer that came back, and you are  
11 welcome to talk to these folks -- We asked whether we  
12 could use their name in a public forum and they said,  
13 yes, we're more than willing to do receive public  
14 questions about our facility.

15                  The answer that came back was we received  
16 three complaints in the last ten years. One was for  
17 dust. One was for odor. And one for noise. And these  
18 neighbors are extremely close. There is also not an  
19 extensive tree blocker between the monofill and then the  
20 road and then these homes. So it is boom, boom, boom,  
21 right one after the other.

22                  The noise complaint, I really can't  
23 comment on. I don't know the details of it. I assume it

1 had to do with machinery that was used to distribute the  
2 waste around the monofill.

3 The dust complaint, they said was solved  
4 when they paved the access road into the monofill, which  
5 tells me that the dust was really being created more by  
6 the trucks moving in and out of the monofill than it was  
7 by moving the monofill material within the parameter of  
8 the facility.

9 And the fact that there was only one odor  
10 complaint to me indicates that odor is not a big concern  
11 to the neighbors.

12 So, hopefully, that helps in giving some  
13 perspective on this.

14 Question?

8-58-BA

15 UNIDENTIFIED SPEAKER: Is that covered by  
16 grass or a tarp or just what?

17 MR. PALEN: What we are seeing in there is  
18 basically natural vegetation growing on the residuals.  
19 The top of that is relatively flat. I will tell you --

20 UNIDENTIFIED SPEAKER: What was it before?  
21 Trees?

22 MR. PALEN: It was an area that included  
23 some trees and some open area. It was a combination of

1 things. There was for -- there was a significant  
2 expansion of this facility. It is now being wrapped up,  
3 but it started about 10 or 15 years ago and it involved  
4 the purchase of additional land that kind of went through  
5 this area and was kind of like this.

6 UNIDENTIFIED SPEAKER: What is the value  
7 of the homes in area?

8 MR. PALEN: I honestly couldn't answer  
9 that question, but given the --

10 UNIDENTIFIED SPEAKER: When we they built  
11 in relation to the monofill?

12 MR. PALEN: Pardon?

13 UNIDENTIFIED SPEAKER: Which came first,  
14 the monofill or the homes?

15 MR. PALEN: I believe there were homes  
16 there before. There were certainly more homes built  
17 after. I do not think -- I'll have to check on this, but  
18 I do not think it would be fair to say all of the homes  
19 came after the monofill. I am quite sure there were some  
20 that was before.

21 UNIDENTIFIED SPEAKER: So it was sort of a  
22 rural area, they put a monofill in, and --

23 MR. CAMPBELL: Can we go back to the

1 people who are waiting in line to ask questions.

2 UNIDENTIFIED SPEAKER: But come on, come  
3 on and ask. Don't be afraid. Come on and ask.

4 UNIDENTIFIED SPEAKER: Get on the record.

5 UNIDENTIFIED SPEAKER: Get on the record.  
6 It is important.

7 MR. CAMPBELL: The woman who has been  
8 waiting over here. I'm going to stick to the process.  
9 Thanks for the suggestion.

10 [REDACTED]: Okay. My name is [REDACTED]  
11 [REDACTED] I live in the Brookmont neighborhood at [REDACTED]  
12 Broad Street, not far from here. And I want to just  
13 raise some bigger picture considerations that came to  
14 mind as i listened to the whole debate and a lot of the  
15 ire I'm hearing among the community.

16 One thing that really came to mind, and  
17 maybe after the hurricane it came to mind, seeing Haiti  
18 and other countries. We are very fortunate to live in a  
19 country with clean water when two billion people in the  
20 world don't have that. So I've been thinking about that.  
21 Let's keep that in mind. Maybe not a very popular  
22 perception, but it has come to my mind.

23 We are also very lucky we live in a

1 democracy where we have environmental laws and a public  
2 review process. Maybe it wasn't perfect the way it has  
3 been implemented here, but at least we're having the  
4 opportunity to comment, whereas in some countries there  
5 no opportunity and all like that.

6 We also live in a great part of a cool  
7 city that has imperfect infrastructure. And that is part  
8 of the compromise and that is the thing that with modern  
9 population numbers we have to factor in.

10 Thinking back to the big picture, I think  
11 we also need to look more broadly than the scale of just  
12 this bite and look at the whole Potomac watershed and why  
13 is it there is so much sediment in the water and consider  
14 some of the development practices across the Potomac  
15 watershed that are flooding the Potomac with these extra  
16 sediments which we now have to deal with in order to have  
17 a clean and safe water supply here.

18 UNIDENTIFIED SPEAKER: Very good.

19 : So something to think about is  
20 development practices across the watershed, riparian  
21 restoration and rebuffer the water up the river, and to  
22 protect the water quality before the permit side, as  
23 opposed to just focusing on this very contentious side of

1 curing the problem. So that is what I wanted to say.

2 MR. CAMPBELL: Yes, sir.

3 [REDACTED]: My name is [REDACTED]. I'm  
4 afraid my question is not as global as that. We talked a  
5 lot tonight about the screening process and the screening  
6 criteria, but you haven't said anything about the  
7 screening people. And what I am trying to understand is  
8 somewhere in your organization are people who applied  
9 these -- decided, first of all, that there were 20 some  
10 alternatives. And secondly they decided that 24 of them  
11 didn't meet the criterion and 3 of them did.

12 And my question is who are those people.  
13 Are you talking about 2 people or 15 people? Are you  
14 talking about yourself? Are you in the room tonight?  
15 Did you outsource this? Tell us who the people are and  
16 -- I've searched your website for a list of names of your  
17 committee and haven't found it. How can we contact you  
18 if we want to say why you should rule out alternative 16?  
19 How do we get in touch in these people so that we can  
20 determine who they are and where that decision making  
21 came from.

22 MR. CAMPBELL: Several of the people are  
23 in the room this evening. Glenn Palen is the project

1 manager and led that effort. The Washington Aqueduct  
2 staff was always intrinsically involved in that. Ed  
3 Fleischer. We had several other engineers who were  
4 engaged in that and planners who are not present here  
5 today.

6 And it would be perfectly appropriate for  
7 us to put all of those names up on the website. In fact,  
8 in the draft EIS a list of all of the people involved in  
9 the project is always listed on there and what their  
10 education and qualifications are.

11 [REDACTED]: But that's not available now;  
12 is that right?

13 MR. CAMPBELL: We will put it up now and  
14 that's a good idea.

15 [REDACTED]: Because the -- I mean it's  
16 obvious these decision impact, apparently, a lot of  
17 lives. The question to me is who makes the final  
18 decision that A, B, and C were the only three -- I guess  
19 there was a fourth one which is do nothing -- that meet  
20 your criteria and that the other 24 don't meet your  
21 criteria. And I know there is a matrix of Xes and boxes,  
22 but somebody had to put the Xes in those boxes. And did  
23 you vote on it? Did one person put an X in a box? How



1 did that process occur?

2 MR. CAMPBELL: Was there a process and was  
3 it arbitrary. Well, hopefully, very carefully we can  
4 argue about the screening criteria and whether you like  
5 them or not, but the criterion themselves were  
6 objectively applied against the alternatives. So it was  
7 a team analysis approach that led to the conclusion that  
8 some alternatives did not meet one or perhaps several.  
9 And I believe the ones that were screened out were  
10 screened out for not meeting several criteria. And then  
11 hopefully we were very careful in the feasibility studies  
12 to illustrate why that was and which criteria in  
13 particular caused an alternative to be screened out.

14 And, if you would like all of those  
15 details, we have all of that information in presentation  
16 form to walk people through to see what that is all about  
17 and how thorough that was.

18 So was it done in a dark room or one  
19 person or throwing darts or any of those questions, it  
20 was a team approach and some of those people are here  
21 right now.

8-61-NC

22 [REDACTED]: You will put that up?

23 MR. CAMPBELL: Yes. The feasibility study

1 is available on the website now. It is the website that  
2 is having problems. That is all made available. We'll  
3 put the names of the folks on there.

4 : My name is   
5 I grew up in Spring Valley. And I am one of the few  
6 people who attended the scoping session in January. And  
7 it occur to me that there were 24 alternatives not shown  
8 there. But thank you for bringing it up tonight.

9 I would like to ask if you could post  
10 those -- the 26 alternatives to the website. That would  
11 be helpful for the residents to come up with other  
12 alternatives that may have missed. And that is just  
13 following up on the previous person's question.

8-62-IA

14 My concern is that I think that the  
15 biggest failure that could come out of this process is we  
16 end up with the no action alternative. For Mr. Jacobus  
17 to say that there is no measurable impact on the river, I  
18 suggest someone start doing detailed health surveys of  
19 people down river, starting with the people at Fletcher's  
20 Boat House and all of the fishermen who have been fishing  
21 there over the years. And I suggest you take sediment  
22 samples from the Potomac River, especially around  
23 Fletcher's Boat House and you will probably see some of

1 the same contaminants in the sediments that are coming  
2 out of the Washington Aqueduct discharge.

8-63-JA

3 I think it is great to see so many people  
4 here tonight. And I would like to encourage you all to  
5 stay involved. I think one way to keep the citizens  
6 involved is if you would post the discharge -- the  
7 discharge time and the dates on the website so that we  
8 could go and stand on Chain Bridge and see the river turn  
9 brown, turn black, and we can see the fish that die. The  
10 National Wilderness Institute has done studies. In some  
11 cases, the fish have lived for less than a minute from  
12 this discharge.

13 Representative Radanovich has all of this  
14 information on his website and it's called toxic sludge  
15 central.

16 And for you to say there is no notice --  
17 no noticeable impact on the river, it is just -- I don't  
18 know how you can say that.

19 Would you commit to posting your discharge  
20 dates and times on your website so that the public can be  
21 notified, so that we know not to go fishing at  
22 Fletcher's?

23 MR. JACOBUS: Thank you, Ken. Our current

1 -- I guess it's the permit. The permit requires -- the  
2 element in the permit of the Federal Facility -- the  
3 permit requires that we do make notification to resource  
4 agencies in advance of discharge.

5 Right now discharges are made under two  
6 conditions. One is they cannot be made after the 15th of  
7 February -- in that period of time between the 15th of  
8 February and the 30th of June. That is to protect any  
9 affect the discharges might have on the agamous or the  
10 native fish species who would be spawning. And the  
11 various species spawn over a period of lots of different  
12 times in that window.

13 So one of the permit conditions is no  
14 discharge during that period of time.

15 The other discharge condition has to do  
16 with river elevation. I am not going to commit this  
17 evening to posting those, not because I want to hide it  
18 from the public, but because I don't want you to rush out  
19 and see something that is not there because given  
20 operational concerns it is not a clockwork. You know, we  
21 get a window of opportunity, then we will make a  
22 discharge. And we might have to change the time based on  
23 what is happening within the treatment plant, did

1 something happen operationally.

2                   So for us to commit to putting an exact  
3 time and location, it is not because we don't want you  
4 not to see that. It is because we don't discharge to a  
5 schedule. We discharge within a certain window of time  
6 that meets those other permit conditions.

7                   We do have a permit condition that  
8 requires us to notify, at least 24 hours ahead of when we  
9 make a discharge, the various resource agencies.

10                   MR. CAMPBELL: All of the alternatives are  
11 available on the website right now in the feasibility  
12 study. Perhaps we need to make a more simplified  
13 document so that it is easier to understand those  
14 because, admittedly, that is a pretty thick document to  
15 go through, but they are on their right now. And that is  
16 a document that you click on and look for.

17                   MR. PALEN: Jed, I have one comment.

18                   Just to make this a little simpler, and I  
19 think we will post, as Jed has just suggested, the  
20 details of that stuff.

21                   If you want to go to the website and you  
22 want to look at the specific place in the feasibility  
23 study to see a concise description of the alternatives, I

1 would suggest looking at pages 2-2 through 2-5. It is a  
2 pretty simple list of each one of the 26 alternatives on  
3 those three pages.

4 MR. CAMPBELL: But I think it is in  
5 everyone's interest to post a summary that makes this  
6 information a little more accessible.

7 [REDACTED]: I'm [REDACTED] from  
8 Brooks and Locust Lane Community Association. We're just  
9 above Brookmont and below Fort Sumner, your neighbors, as  
10 well as that wonderful mapping agency.

11 I want to just be clear on a couple of  
12 things that came out today that having been at not the  
13 scoping meeting, but the last meeting, which was that  
14 shout feast that wasn't very clear.

15 There is a fourth option which is do  
16 nothing. And that is still a part of the process at this  
17 stage; right?

18 And, not being an environmental scientist,  
19 we're not talking about eliminating a problem of  
20 disposing of residue. We're talking about trying to find  
21 land-based solutions as opposed to a river-based  
22 solution, which is the present method we're using to  
23 dispose of residue; correct?

8-64-FB, EA

1 MR. CAMPBELL: Correct.

2 [REDACTED]: Now, you also said tonight,  
3 if I heard this correctly, that the EPA regulation is  
4 that you have to -- if you technologically can remove  
5 this residue, you have to do it regardless of whether  
6 there is an environmental problem and it's is not -- so  
7 therefore -- because that is what doesn't make any sense  
8 here. I would, as a citizen, be very happy to watch a  
9 process go through where we look at the scientific merits  
10 and demerits of the land versus water-based methods of  
11 disposing of this residue and decide in terms of all of  
12 the criteria we've talked about what makes more sense for  
13 the community, for the wider Washington community, the  
14 Potomac River basin, all of these things.

15 But am I wrong, that the EPA could still  
16 -- you're saying the EPA says you can take it out, so you  
17 have to take it out even if that may not be the best  
18 thing to do because the other problems you're creating  
19 has the resulting of taking it out and having to deal  
20 with it outside are worse than the problems that might  
21 exist if yo throw it back in the river?

8-65-MA

22 MR. CAMPBELL: This relates to EPA's  
23 enforcement of the Federal Clean Water Act. And we have

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1 described that there are two criteria. One is the water  
2 quality criteria and the other one is the goal of  
3 stopping discharge to water bodies. And it is that  
4 second criteria that is being applied here. And the  
5 question of land disposal versus water disposal was  
6 addressed in the EPAs process. We're not going to  
7 address that in this process. So that would be  
8 understood by reading the fact sheet that accompanies  
9 that permit, that we have some copies of today. So that  
10 is really an EPA issue in terms of how they interpreted  
11 it and water versus land and the respective switching of  
12 impacts from one area to another area. And so that  
13 decision has been made by EPA based on the Clean Water  
14 Act.

15 MR. JACOBUS: That's a very good question.  
16 Our discharge permit expired in April of 1994. And  
17 between April of 1994 until June of 2003, we were  
18 operating under administrative extensions of the permit  
19 while EPA, the states, the community, us as the Aqueduct,  
20 the National Wilderness Institute, all of these players,  
21 were engaged in a process of determining should the river  
22 be the disposal mechanism or should it be a land-based  
23 disposal.



1                   It was out of that nine years of efforts  
2 by EPA that they did issue the permit requiring that the  
3 river not be the disposal option. And it does seem  
4 paradoxical that while you're dealing with the Clean  
5 Water Act issue you are also initiating an environmental  
6 impact statement form under NEPA for the -- for the  
7 solids that are going to have an effect on human and  
8 other biological and all of those other environments.

9                   So, yes, it is a -- in 1994 when we  
10 started to do this before, we got literally through  
11 design and stopped because there was no way to move  
12 forward without a new permit. EPA would not -- it  
13 decided not to issue a permit until they got additional  
14 information and it took nine years to issue the permit.  
15 And so we are where we are as a result of a very long and  
16 involved public participation process and intervention by  
17 the State of Maryland and for the District of Columbia in  
18 doing what they have to do to certify the elements of the  
19 permit.

20                   So I am not blaming anything on EPA. I am  
21 not using them as a shield. I am just saying that that  
22 process occurred very deliberately over a long period of  
23 time. Out of that process came to us as the operator a

1 requirement to recover the solids because it was  
2 technologically feasible to do that. It was not the  
3 Clean Water Act's water quality prong that didn't all  
4 this discharge. It was the best available technology.

5 So that is where we are and why we're  
6 proceeding here.

7 [REDACTED]: Well, let me make one very  
8 quick remark. Treating it sequentially makes no sense to  
9 me. You should be treating them at the same time and  
10 comparing whether -- I am not taking a position here. I  
11 don't want dirty water and I don't want dirty air and I  
12 don't want dirty ground. I mean I -- but I don't like is  
13 that we decide one option is closed and then we start  
14 looking at the others and we're not comparing the  
15 relevant environmental harm and the relative  
16 environmental damages of the two options together, which  
17 for us who live around this -- this facility, it would  
18 seem to be the more rationale way to do it. Thank you.

19 [REDACTED]: I'm [REDACTED] from the  
20 Brookmont Civil League. I had an earlier bit at the  
21 apple here and I beg your indulgence. And I'm driving a  
22 car pool and we have to leave shortly.

23 I just wanted to get in the record two

**8-67-BA**

1 points. One, that the general agreement, there was no  
2 public discussion, either in formal hearings or  
3 information sessions, by the Corps that this building  
4 would be built and the -- in particular, the height of  
5 that. We're talking about the residuals dewatering  
6 building in terms of its height, it's site, it's  
7 architectural features. That is point one.

8 And I take to heart, Tom, about what you  
9 said a moment ago that the issue isn't set. This fellow  
10 over here seemed to say that it was set. In reality, it  
11 isn't set. I am delighted to hear that.

12 Your engineering feasibility report in  
13 section 4-3 basically suggests it is set somewhat. The  
14 height is set for a variety of reasons, of getting trucks  
15 under the building. The design is set for a variety of  
16 other reasons. The location is set for a variety of  
17 other reasons

18 I am really delighted to hear that this is  
19 not set and we basically want to get to further  
20 discussion on this issue in a time fashion, before the  
21 decision is made, anything is locked in. That would  
22 certainly comport with everything we have heard tonight  
23 in terms of the timing for treatment of residuals, before

1 you treat the residuals, you have to create them in this  
2 building. And I think that should be the primary issue  
3 of high priority on the decision.

4 MR. JACOBUS: Thank you. No design has  
5 been offered. These are just all the ideas and  
6 speculation at this point.

7 [REDACTED]: Okay, thanks. Appreciate  
8 that.

9 [REDACTED]: My name is [REDACTED] and I  
10 have been a resident of Spring Valley for 22 years. And  
11 I just have a comment, not a question, a comment on the  
12 monofill alternative.

13 I just want to speak for all of those who  
14 cannot speak, and that would include the 30 acres of  
15 animals and trees, and I just think it would be just  
16 outrageous to just mow over and kill all of those trees  
17 and animals. Thank you.

18 [REDACTED]: I'm [REDACTED] I live  
19 in Westmoreland Hills. I was curious about the economic  
20 analysis. You may have this done as part of your  
21 monofill option. The 30 acres that you are proposing  
22 your waste dump, it probably is the most expensive  
23 property in the District of Columbia. And, absent the

8-68-AC

1 chemical munitions that may be in that site, that site is  
2 probably worth more than a lot of the costs that you  
3 currently are comparing in terms of the various options.

4                   And I wondered if you had considered the  
5 opportunity costs of alternative use of that property.  
6 Perhaps developing that property and creating a tax base  
7 for the District of Columbia that they heretofore  
8 otherwise don't have. And, if you put your monofill in  
9 there, will never have.

10                   And I wondered if you had done that --  
11 that kind of economic analysis as far as your options.

12                   MR. CAMPBELL: Alternative uses for that  
13 site has not been included. It has been limited strictly  
14 to residuals management. The market value of the parcel  
15 has also not been included because the land is the  
16 Aqueduct's own. Now, related to future development or a  
17 pension of the Aqueduct with respect to that land, really  
18 only Tom can address that.

19                   MR. JACOBUS: I would say that we have no  
20 plan to sell or develop any land that is currently under  
21 our control. But we will take that comment and give you  
22 a response to that in some thoughtful way as part of the  
23 record of all of this. What that means is I don't see

1 us ever -- I think water treatment facility is well-  
2 served by having that buffer. If we did the monofill, it  
3 would still be in a format there that would have a  
4 controlled environment. That would be helpful to us to  
5 protect our reservoir property, even though the  
6 reservoir over here has a dike around it and no water  
7 goes directly into it. We think that buffer is important  
8 to us.

9 Whether putting a monofill on that  
10 property would be inconsistent with that buffer, it is  
11 something that we will be evaluating in the process. But  
12 we never ever considered selling that land or to develop  
13 it.

14 : No, i'm not talking about  
15 selling the property. I am saying that a proper economic  
16 analysis has to include the opportunity cost of  
17 alternative use of that property.

18 In your other two options, that property  
19 remains solid and it has to include an opportunity cost  
20 of selling that property or the expense of not doing  
21 that.

22 MR. JACOBUS: Thank you, Bob, and we will  
23 fit it in somehow. Thank you.

1 [REDACTED]: Good evening. My name is  
2 [REDACTED]. I live in Westmoreland Hills. And  
3 earlier on you guys talked about the members of the team  
4 and someone had a question about who makes the decisions

8-69-NC

5 and whatnot. And I was wondering if you could tell us a  
6 little bit about the background of all of the members of  
7 the team. It seems from what I have been listening to,  
8 and I may be completely wrong and I hope you can shed  
9 some light on this, that most of the members of this team  
10 are either engineers or chemists or people who are more  
11 focused on the actual water issue, which I guess for you  
12 guys it is the main thing.

13 Was there a town planner or an urban  
14 planner or anyone -- and I can only speak for myself  
15 because I have -- and I can only speak for myself, but I  
16 would say from the majority of those people, the urban  
17 planning issues, the impact that it is going to go have  
18 on our community, is the main issue. I mean, if you had  
19 someone like that, an urban planner or a town planner in  
20 your team helping you go through all of those 26 options

8-70-CA

21 because, I mean, obviously having a landfill and so  
22 forth is not done planning-wise. It is not the most  
23 focused option, as you mentioned earlier, you're looking

1 for a very gentle thing to do in the neighborhood, and I  
2 don't know if I'm quoting you correctly, but I was  
3 wondering if you could shed light on that.

4 MR. CAMPBELL: Yes, I would like to. I  
5 talked earlier about the land use associated with the  
6 monofill being inconsistent with both existing land use  
7 and adjacent land use.

8 To launch off on that point, on the team  
9 are not only environment and civil engineers, but also  
10 environmental planners, biologists, resource economists,  
11 meteorologists, and economists.

12 And so they will be looking at that  
13 variety of issues, land use and the monofill.

14 [REDACTED]: To be specific, I know CH2M  
15 Hill is a large firm. From your -- I know they are  
16 architects and I know there are all of these engineers.  
17 Do you have any town planners working on this in  
18 particular or just in your group?

19 MR. CAMPBELL: We have environmental  
20 planners, not town planners as you're calling them. They  
21 have degrees in environmental planning and the answer is  
22 yes.

23 [REDACTED]: Thank you.

8-70-NC



1 [REDACTED]: My name is [REDACTED]  
2 and I did have an opportunity to ask a question. I have  
3 one more question. I live in Westmoreland Hills.

4 I would appreciate in addition to your  
5 answer right now, if you can, if you would research this  
6 and put a more complete answer on your website.

7 My understanding is that one of your  
8 screening criteria is a least cost, or low cost, option  
9 and it may have had a dollar amount to exclude other --  
10 certain options. And my question is: Were any options  
11 that were not in the 26 excluded in part because it did  
12 not meet that cost criteria and, if so, what were those  
13 options and what was your estimate of the cost?

14 The second part is, when you narrowed the  
15 26 options down to the three options, were any of those  
16 23 excluded in part because of the cost and, if so what  
17 were those options and how much was the cost. And I  
18 would really appreciate -- I wouldn't expect you to have  
19 all of that information handy, but I really would  
20 appreciate it if you would provide that question and that  
21 answer, complete answer, on your website.

22 MR. JACOBUS: We would be happy to do  
23 that. Let me clarify. There were never more than 26

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8-71-AB, NB

1 options.

2 [REDACTED]: But were any failed to be  
3 included?

4 MR. JACOBUS: No. Everything could be  
5 included. All we could think of from ourselves and  
6 others was 26. And then we started whittling it down.  
7 And cost did play a factor and we will be happy to  
8 provide that information.

8-72-AB

9 [REDACTED]: Do any of you know off the  
10 top of your head now?

11 MR. JACOBUS: I will probably misspeak.

12 MR. CAMPBELL: It probably is better if we  
13 are going to go through the detailed alternative  
14 presentation, I think it will be easier to summarize it  
15 from the presentation.

16 [REDACTED]: Well, just off the top of  
17 your head for people who can't stay.

18 MR. CAMPBELL: Quite a number.

19 MR. JACOBUS: There several. And the cost  
20 factor I think was if something got beyond -- excuse me.  
21 If something got beyond, was it 30 percent?

22 MR. PALEN: Yes.

23 MR. JACOBUS: About 30 percent, but that

1 was a screening area that we wanted to look at because  
2 everything we do here has to be paid by our rate payers.  
3 So cost is a factor. It was about a 30 percent --  
4 anything beyond the 30 percent range of others was looked  
5 at and evaluated in terms of cost.

6 We will get you specifically here -- I  
7 think there are a couple more questions. We'll come back  
8 to this.

9 [REDACTED]: What was the baseline?

10 MR. JACOBUS: Whatever it was, we estimate  
11 right now that from just the general planning that this  
12 project is about \$60 million. So a cost that looked at  
13 about more than \$90 million -- Is that the figure, 30  
14 percent of 60 -- you know, 75 or so would start to be  
15 something that we would -- we would want to look at  
16 alternatives that could be physically done that were not  
17 more expensive than that \$75 million.

18 [REDACTED]: But might there be one that  
19 is out there that was over 70 million that might be on  
20 the list of three and it might be four or five not, but  
21 for that cost?

22 MR. PALEN: We can get you that.

23 MR. CAMPBELL: There are a couple of

1 questions. The reason we held off on this detailed  
2 screening criteria is it is kind of long and involved and  
3 it seems like us talking too much. And the momentum of  
4 the meeting clearly was for people having a lot of  
5 questions.

8-73-NB

6 [REDACTED]: I selected that one because  
7 many people feel that was an arbitrary screening  
8 criteria. And, if it is arbitrary and if it did screen  
9 out some viable options, that is something I think the  
10 citizens would like to know.

11 MR. CAMPBELL: We would like to talk about  
12 that. That is also in the feasibility study that we have  
13 to make more clear.

14 Why don't we listen to these two extra  
15 questions or comments and then for those who are  
16 interested, perhaps we could walk through some of our  
17 material about the screening studies for those  
18 alternatives.

19 [REDACTED]: I am going to take a real  
20 quick second bite at the apple here. I want to say I  
21 think these people have done a good job tonight. They  
22 have been up here at least taking the heat.

23 People in this room, thanks for sticking

1 around.

2 I want you to know that the Army Corps  
3 project manager for the remediation was here most of the  
4 entire evening. He had been in meetings all day. He has  
5 got to come back down from Baltimore tomorrow.

6 Is the gentleman from EPA still here?

7 To the Army Corps and to Mr. Jacobus in  
8 particular, I think the EPA has been hanging you out to  
9 dry here and I think it is really unfair and they are  
10 going to hear about it tomorrow, whether it is Tim  
11 Wolford or Mr. Dunn or whatever because it is not fair to  
12 you that the EPA put you in this position and doesn't  
13 have the guts or the responsibility, in my opinion, to  
14 send a person here for much more than the beginning of  
15 this meeting.

16 So any activists in the room, any people  
17 interested in taking this further, let's talk to EPA at  
18 some point before we even go -- At least our  
19 Congressional representatives are here.

8-73-MA, FE,  
NC

20 UNIDENTIFIED SPEAKER: Was EPA invited?

21 MR. JACOBUS: Yes.

22 UNIDENTIFIED SPEAKER: They were invited  
23 and they declined?

1 MR. JACOBUS: They were invited. I did  
2 not know who the gentleman was who was here. He is not  
3 someone I have met.

4 [REDACTED]: My point is, as hard as you  
5 are working, it's not fair to you what they have done.

6 [REDACTED]: Hi. I'm [REDACTED] I  
7 live on West Nathan. I have some similar questions. It  
8 is probably best for me to list them all very briefly and  
9 then you can decide exactly how to answer those.

10 I would like to know, did the EPA have to  
11 go through the NEPA process similar to this when they  
12 issued their permit, as far as did they have to consider  
13 the land-based alternatives and their impacts in the  
14 process of issuing their permit?

15 And when what I would like to know is, was  
16 the Corps of Engineers agreement to the permit, did that  
17 not count as an agency action at that time? If it did,  
18 it might have required the NEPA process as far as when  
19 the Corps agreed to return to that permit that  
20 effectively precluded some alternatives down the road.  
21 Maybe that was the time to had to have gone through some  
22 part of the NEPA process.

23 And, also, in the current process that we

8-74-MA,  
NA

1 are now undertaking, as the EPA been asked to be a  
2 corroborating agency and, if not, do you still intend to  
3 invite them to be a corroborating agency?

4 And a clarification, I apologize, I was  
5 late at the beginning. Did you announce at the beginning  
6 that the original 30 September deadline for alternatives  
7 was extended to 15 November?

8 MR. CAMPBELL: Yes. Yes.

9 : And when you get to the part  
10 on the discussion of the 26, would you please explain how  
11 those 26 was developed in the first place.

8-75-NA, NB

12 MR. CAMPBELL: Why don't we try to -- we  
13 have answered some of those already and I'll maybe look  
14 at them inverse order. And help me make sure I remember  
15 them.

16 A fundamental issue is did EPA have to go  
17 though NEPA and at what point did NEPA get triggered, was  
18 it earlier in the process? EPA has -- I'm not an  
19 attorney, so I'm not sure I know the answer. EPA did  
20 have a process and during this permit that Tom has  
21 described is outlined in their fact sheet and they had a  
22 number of public involvement points in that project. It  
23 was essentially sort of a nine-year process to go through

1 that.

2 MR. JACOBUS: The EPA did not need NEPA,  
3 per se, for its permit, no. That fell to us and our NEPA  
4 responsibilities started essentially the day the permit  
5 was issued as we tried to figure out how to move forward.

6 [REDACTED]: So the permit itself,  
7 though, was not an agency action requiring NEPA?

8 MR. CAMPBELL: We don't believe so.

9 Did you have other questions? I'm sorry,  
10 I can't keep them all in my mind.

11 [REDACTED]: Basically, that one as far  
12 as from the Corps of Engineers' perspective, is that the  
13 Corps of Engineers agency action required NEPA when you  
14 agreed to the terms of the permit?

15 MR. JACOBUS: I'm not any attorney. I can  
16 get you answer to that. But we are -- yes, I am the  
17 Corps of Engineers, but I'm treated like a water utility.  
18 A water utility, after it accepts the permit -- once we  
19 accepted the permit, then we had to begin an action on  
20 our own. And, since we are a federal agency, our action  
21 to come into compliance, if it is going to involve a  
22 construction alternative, it would certainly require  
23 NEPA.

8-76-MA



1                   So we initiated the NEPA process as the  
2     permittee. I don't exactly know the answer to your  
3     question of when we received the permit.

4                   [REDACTED]: I guess my question was more  
5     the agreement.

6                   MR. JACOBUS: Well, it wasn't an  
7     agreement. It was the issuance of a permit under the  
8     Clean Water Act. It wasn't an agreement. They issued us  
9     a permit. They said these are your standards. Since we  
10    could not meet those standards, they issued us a Federal  
11    Facilities Compliance Agreement which is an enforceable  
12    consent order that tell us how we're going to get from  
13    where we are to where we're going. But it still falls in  
14    our court for NEPA.

15                  Now, as far as whether the EPA -- the EPA  
16    is not now a consulting -- what do you call it --

17                  MR. CAMPBELL: Cooperating.

18                  MR. JACOBUS: Cooperating agency. I  
19    suspect they will become one as we get the draft EIS  
20    published.

21                  MR. CAMPBELL: They are involved very  
22    closely in the project. This team has been up to  
23    Philadelphia, Region III, and we briefed them on the

1 project so the are aware of the progress that we're  
2 making.

3 MR. CAMPBELL: One more question.

4 [REDACTED]: [REDACTED]. Did the Clean  
5 Water Act require that the Aqueduct be run by a non-  
6 federal agency sooner or later? And would that have  
7 deemed (inaudible).

8-77-MA

8 MR. JACOBUS: No. The Clean Water Act,  
9 through the National Pollutant Discharge Regulation, the  
10 NPDES, it regulates whoever the operator is. We are  
11 registered as a public water supply. We happen to be  
12 part of the Army Corps of Engineers, but in our  
13 relationship with EPA, they look at us as a regulated  
14 public utility.

15 You may be thinking about historically  
16 that it is in the -- in the revisions to the Safe  
17 Drinking Water Act of 1995 or '96, there was provisions  
18 in that that the Army was to decide whether or not to  
19 retain ownership and operation within the Corps of  
20 Engineers or whether we should go to become some non-  
21 federal entity.

22 As a result of that process, the Army and  
23 its wholesale customs, the District of Columbia Water and

1 Sewer Authority, Arlington County, and the City of Falls  
2 Church, Virginia, agreed, and the Army agreed, to  
3 continue the function as the operator. So there is no  
4 pending action to change the ownership or operation  
5 responsibility from the Corps of Engineers in The  
6 Washington Aqueduct. And our presence here as a federal  
7 agency has nothing to do with how we will comply with the  
8 permit, other than just as a normal water utility.

8-78-JA

9 UNIDENTIFIED SPEAKER: Hi. Just a quick  
10 question. What is the environmental harm the EPA is  
11 concerned about with affect to the discharge or where  
12 would we find some description of what that is?

13 MR. JACOBUS: We can give these fact  
14 sheets out. This is all very well described in what they  
15 call a fact sheet, which is a summary of analysis that  
16 goes along with the permit.

17 The material that we have discharged into  
18 the river will continue to be discharged until we correct  
19 this, is this material right here. It is the river  
20 sediment plus coagulant.

21 By the time it settles down and goes back  
22 into the river, it is a fairly thick solution and it goes  
23 into the river at three different locations, one above

1 Chain Bridge and two below Fletcher's Boat House,  
2 essentially in pipes. And, at the end of the pipe there  
3 is a very concentrated discharge. As Mr. Slowenski said,  
4 if you stand on Chain Bridge when we're discharging, you  
5 see a point until it mixes with the river, it's dark  
6 brown to black, depending on how long the material has  
7 been in the sedimentation basin.

8                   The potential harm, we look at the toxic  
9 and the other effects, whether it is toxic effects. We  
10 do the current toxicity on young life species of fish  
11 that is exposed to the different dilutions of the  
12 material. And then they look at the effects as it sat on  
13 the river bottom and affect aquatic vegetation. My  
14 comment that it has no effect on the river; of course, it  
15 has an effect on the river in that you are adding  
16 something to the river that wasn't there. Of course,  
17 it's there. But what I am saying is that it probably be  
18 consistent with a discharge that would be allowable,  
19 except for the fact that technology exists and is in  
20 place to recover the discharges and so EPA declined to  
21 issue a permit unless we put that available technology  
22 into recovering the solids.

23                   MR. CAMPBELL: We have a number of people

1 who have really stuck with us through the length of this  
2 meeting under the promise that we would talk about the  
3 screening of the alternatives and I think it is time for  
4 us to do that. And, Glenn, I am going to turn that to  
5 you. We've had questions about the alternatives  
6 throughout the course of the evening.

7                   Very early on we were asked about the  
8 barge alternative. I'm am sure that there was some  
9 thorough analysis done on that. There were a variety of  
10 different screening related subjects that came up. And  
11 so we would to take the opportunity to walk through what  
12 that process was like. There is a lot that goes into  
13 their. And Glenn will go through that process now.

14                   Glenn, I think that we have those in  
15 perhaps some modules so that -- or how long do you do you  
16 talk? How long do you want to talk on this?

17                   MR. PALEN: Okay, the question is how long  
18 would I like to talk, how long is my material. I have  
19 two options. If you would like additional information as  
20 I go through this, I'll be happy to enhance what I have,  
21 so let me get into the beginning.

22                   I will show you information on the first  
23 three alternatives. I will describe all of the

1 information that I prepared in my notes here and proposed  
2 to tell, including what is the alternative, describe it,  
3 was it selected for further evaluation or was it  
4 eliminated from consideration, why was it eliminated,  
5 what are the screening criteria we used to eliminate it,  
6 and then some detail about that, the particulars in that  
7 alternative.

8                   We have developed that complete level of  
9 detail for all 26 alternatives, I've done it before, it  
10 will take me about 40 minutes if I talk really fast. So  
11 I don't know if you really want to stay for 40 minutes.  
12 I am going to try a quicker version I think would be half  
13 of that time. And, like I say, if you want more detail,  
14 we have more detail and I can give it to you. So I am  
15 not trying to hit you with just the 40-minute version.

16                   Okay. Let's start. Alternative number 1  
17 is what we call and what NEPA calls the no action  
18 alternative. It is continue to discharge the residuals  
19 to the Potomac River. In this case, it was selected for  
20 further evaluation by regulation requirements.

21                   And one other feature I will show here is,  
22 if we have something, just as a visual aide, if the  
23 something we eliminate, we are going to it red. So, when

1 we get to the end of a grouping of alternatives, you will  
2 be able to look at all of them and say ahh, two out of  
3 that eight were eliminated or retained or whatever.

4 : I apologize. In light of  
5 the hour and the few people here, would you schedule  
6 another evening for this presentation so more people can  
7 be here?

8-79-FE

8 MR. CAMPBELL: We certainly envisioned  
9 more presentations on this project. And one reason we  
10 held off on this is because it is long and detailed and  
11 we put a lot of momentum towards the questions and you  
12 yourself were part of that.

13 At a subsequent meeting, we can certainly  
14 go through this at that time. I think we should still go  
15 through at least Glenn's 20-minute version of it right  
16 now.

17 MR. PALEN: Okay. Let's move on to the  
18 next group of alternatives. These are discussed in  
19 groups. And the same grouping -- the same alternative  
20 numbers are used in the feasibility study, in other words  
21 cross-referencing is made.

22 This grouping includes some alternatives  
23 that did not require continuous trucking from the

1 Dalecarlia water treatment plant. And there is a variety  
2 of them. I'll go done one by one.

3                   Number 2 on that list includes processing  
4 water treatment residuals and dispose of them in the  
5 Dalecarlia monofill periodically hauling Forebay  
6 residuals off-site as they are now.

7                   This alternative was selected for further  
8 evaluation. It is what we commonly call the monofill  
9 alternative in our meeting here tonight.

10                   Alternative 3 is similar to, but not  
11 exactly the same. It involves processing, or more  
12 specifically co-processing, water treatment and Forebay  
13 residuals together. So in that water treatment you would  
14 process all of those things together so there is a common  
15 product and then it is silted back into a Dalecarlia  
16 monofill.

17                   This alternative was eliminated from  
18 consideration for the reliability and redundancy.

19                   Let me go through in this case a little  
20 more detail as to why that elimination took place. I  
21 will then be able to offer this additional detail for the  
22 other alternatives. Probably a later meeting will be  
23 best, but let me explain how it got eliminate in more



1 detail here.

2                   So, in this case we are talking about a  
3 co-processing alternative. Inherent in the mixing of  
4 these two residuals and then co-processing them are some  
5 characteristics of the product. One that we discovered  
6 as we studied it was we will be able to get the Forebay a  
7 little dryer if we process them separately. Since the  
8 majority of them are residuals that are being transported  
9 either to the monofill or light truck or through a  
10 pipeline, our water -- we are talking about producing, is  
11 30 percent dry solids with 70 percent of that basin being  
12 water.

13                   The fact that we can get a dryer material  
14 when we process them separately means that in the co-  
15 process, as in this alternative, we would generate a  
16 larger volume of the dewatered solids to then transport  
17 to the monofill or through some other method.

18                   That was considered a disadvantage to us,  
19 making more material move.

20                   The second issue we had with this  
21 alternative is by combining these two substances, the  
22 Forebay residuals with the water treatment residuals, we  
23 recognized that the Forebay, a large percent of that

1 material is gradient. It is very abrasive. So if we put  
2 that material into our dewatering equipment or other  
3 pumps, we're going to wear it out. It is going to be  
4 very abrasive. We're going to reduce the life of that  
5 equipment and we're going to affect the reliability of  
6 the system as a whole. Another disadvantage of combining  
7 alternatives given that they also contribution to a  
8 larger volume.

9                   So that is the kind of back up logic, if  
10 you will, that is being that one phrase reliability and  
11 redundancy for this alternative.

12                   So now we're going to proceed through in a  
13 little more abbreviated fashion, just going over the  
14 basic criteria that we used for eliminating or, in some  
15 cases, maintaining an alternative.

16                   So alternative 4, here we're pumping via  
17 the Potomac Interceptor. This is the unthickened water  
18 treatment residual products that we're putting directly  
19 in the Potomac Interceptor sewer.

20                   It was eliminated from consideration for  
21 reliability and redundancy reasons, economic reasons, as  
22 well as zoning, land use, federal and local regulation  
23 reasons.

1                   So the fifth alternative in the total list  
2 was thickening at Dalecarlia and pumping via a new  
3 parallel pipeline installed adjacent to the Potomac  
4 Interceptor. This alternative was elected for further  
5 evaluation and it is what we call the pipeline  
6 alternative or the Blue Plains alternative.

7                   Alternative 5 is thicken at the Dalecarlia  
8 plant and then barge the residuals to the Blue Plains  
9 facility or dewatering. This was studied in quite a high  
10 level of detail in the feasibility study. We looked at  
11 the various impacts of different size barges, the issues  
12 associated with seasonal issues, with ice formation, et  
13 cetera.

14                   And, in the end, we were not able to carry  
15 this alternative forward for the following reasons:  
16 Reliability and redundancy. There was also zoning issues  
17 because the pipeline down to the barge would have to go  
18 through the C and O Canal park to get there, one of the  
19 issues. As well as a proven method criteria which really  
20 relates to the fact that there isn't a lot of barge with  
21 this kind of material at this stretch of the river. It  
22 is not a common use.

23                   Alternative number 7 involves thickening

1 the residuals at the Dalecarlia plant, pumping them via  
2 pipeline to a neighboring water utility. In this case we  
3 looked at two nearby water utilities, Fairfax County  
4 Water Authority, the Corbalis plant in Herndon, Virginia,  
5 and then we also looked at the Potomac Water Treatment  
6 Plant, which is owned and operated by the Washington  
7 Sewage and Sanitary Commission, or WSSC. And that plant  
8 is just up the Potomac River on this side, on the  
9 Maryland side.

10 In both cases, we were looking at  
11 installing a pipeline that would transport this thickened  
12 material to those facilities.

13 Some of the reasons that these  
14 alternatives did not carry -- were not carried forward is  
15 this is one of those where the economic criteria was  
16 relevant. The cost of putting in the pipeline and,  
17 unfortunately, because neither of these existing water  
18 utilities had excess dewatering capacity, we still had to  
19 provide all of the other features or a facility such as  
20 thickening facilities, pumping, and the dewatering  
21 facilities. Then, on top of that, we had to cost for the  
22 transfer, for the pipeline, to get it from point A to  
23 point B. When you looked at that cost, it was higher

1 than our criteria would allow.

2                   There were also institutional complaints.  
3 Neither the Fairfax County Water Authority or WSSC is by  
4 definition a regional processor of residuals and they  
5 really didn't express much interest in becoming one as a  
6 result of this project. They have their own residuals.  
7 They handle them themselves. And, therefore, the  
8 Washington Aqueduct would have no real control over them,  
9 there was that institutional barrier as well.

10                   Alternative 8 involves thickening at  
11 Dalecarlia and pumping via pipeline to what is called a  
12 dewatering location. What is meant here is a nearby  
13 location, probably something close to the beltway so we  
14 could move the material quickly to a large volume road,  
15 but not necessarily the water treatment plant that  
16 already exists.

17                   This alternative was screened out for  
18 somewhat similar reasons to the last one. There was a  
19 pipeline involved, so the same kinds of economic factors  
20 associated with the pipeline costs come in the play here.  
21 There was an added pipeline cost, if you will. There was  
22 also FFCA issues here because we were looking at  
23 installing a pipeline through a relatively large number

1 of plots of land owned by various commercial and private  
2 folks.

3                   The general assumption here was that we  
4 would have to go around and study, to look at various  
5 alternate routes. We would then have to go through the  
6 processing of getting right-of-way, et cetera. And that  
7 added time to the process when compared to an alternative  
8 that did not require a pipeline to go through those kinds  
9 of parcels. So that was a problem from a schedule  
10 prospective which represents FFCA.

11                   This is kind of a summary of how those  
12 seven alternatives turned out. There two green. So two  
13 of them were retained and the remainder were not retained  
14 for further study.

15                   Then we moved on to another grouping of  
16 alternatives. These are alternatives which discharge to  
17 the Potomac River in some form.

18                   We'll start with the first one, number 9.  
19 It involves processing most residuals at the Dalecarlia  
20 Water Treatment Plant and hauling those off-site, but  
21 taking a portion of the residuals and instead of  
22 concentrating them, dilute them and send them back to the  
23 river so that they would be within the standards or

1 concentrations allowed within the permit.

2                   And Tom talked before about how those  
3 concentrations are really very low, like 30 milligrams  
4 per liter is one of the numbers for TSS and then there is  
5 a separate standard for aluminum.

6                   So I don't think we really necessarily  
7 thought this was going to be feasible up front, but we  
8 thought we had to rigorously look at it. Forebay  
9 residuals was also going remain at the level they are  
10 now. They are going to have to be hauled off-site.

11                   The alternative did not follow through or  
12 was not carried through for two reasons, reliability and  
13 redundancy and NPDES. The NPDES issue was related to the  
14 fact that inherent in this alternative is a dilution  
15 assumption. We're going to take some water from  
16 somewhere, we are going to add a portion of the  
17 residuals, dilute the concentration and get it down  
18 within the limits acceptable to the permit.

19                   The obvious choice -- the reasonable  
20 choice for dilution water was the cleanest water we had  
21 that wasn't finished water where we hadn't put all of  
22 these chemicals into it and made it into potable water,  
23 which we would then use to dilute residuals before we

1 dump them in the river. So the cleanest water we had  
2 that wasn't finished water was the water that exits the  
3 Dalecarlia Reservoir where some of the sedimentation had  
4 already occurred and the water cleaned up again by ground  
5 desettling.

6                   However, when we looked at the  
7 concentrations of that water, it was too high to serve as  
8 a dilution water source and then meet our permit for the  
9 discharge. So we didn't have a feasible dilution method  
10 that made any sense to us. So that is really why this  
11 alternative failed our -- our criterion.

12                   Number 10, renegotiate the NPDES permit to  
13 allow us to return all residuals to the Potomac River.  
14 This is legally an optimistic way to think of no action  
15 alternative. Not only are we going to not go out in the  
16 river, but we're going to actually renegotiate with EPA  
17 and everybody is going to agree to leave it in the river.

18                   This is pretty much a direct conflict with  
19 our discharge permit. So it screams out sort of  
20 philosophically on that basis. Either you are going to  
21 say we're going to have meet the permit or you're not.  
22 If you are, then this alternative is really -- flies in  
23 the face of that.



1                   And, since we already have the no action  
2 alternative, it's a little redundant too.

3                   Alternative 11, process most of the  
4 residuals at Dalecarlia, haul them off-site. This also  
5 involves a dilution step here to allow some of the  
6 residuals to be sent back to the river. In this case  
7 we're not talking about taking a stream of the residuals  
8 before they're processed and diluting them. Here we are  
9 talking about the side streams that are generated as a  
10 result of treating the residuals, take the side stream  
11 flows and dilute them with water to allow some of those  
12 to be discharged.

13                   It may be not be fully obvious, but in  
14 these dilution alternatives we are talking about  
15 theoretically sending a tiny fraction of these residuals  
16 back to the river and still having to dewater and either  
17 monofill or pipe or truck the vast majority of them away  
18 to another place because the discharge standard that we  
19 have to meet to accomplish this dilution is so low. But  
20 nonetheless we wanted to rigorously show through our  
21 calculations that it was theoretically possible.

22                   So what we did was say, okay, let's find a  
23 dilution water source again. We ran into the same

1 problem. Our best water source that we could use for  
2 dilution was the reservoir affluent. Once again, it had  
3 too much natural turbidity in it to serve as a water  
4 source when combined with the flow thing we were trying  
5 to dilute. So we didn't have a feasible way of doing the  
6 dilution.

7                   So, in summary, here is how those three  
8 alternatives turned out. All three were not carried  
9 forward for further consideration.

10                   Four alternatives were also looked at that  
11 involved building something in the Dalecarlia Reservoir  
12 itself. The first thing, number 12, which is storing the  
13 residuals at the reservoir, processing at Dalecarlia,  
14 with final disposal in the Dalecarlia and, in this case,  
15 the McMillan monofill.

16                   Someone asked earlier, and I should have  
17 answered before, where did these alternatives comes from.  
18 This is an example of one, but the vast majority of  
19 these, I think like 24 out of 26, came from various Corps  
20 documents prepared by a whole host of other firms and  
21 work that was done by the Washington Aqueduct. We went  
22 through those various documents, found the alternatives,  
23 put them in his list. This is one of those that had come

1 from that historical list of documents.

2 This alternative did not survive the  
3 screening process based upon the reliability and  
4 redundancy criteria.

5 Excuse me for a second.

6 And actually I think we're going to show  
7 here all of alternative 12 through 15 were eliminated  
8 based upon that same criteria, reliability and  
9 redundancy. So you can just flip through those.

10 The basic reason for that is the  
11 reservoir, being the initial -- you call it a treatment  
12 step, but it is really a gravity settling step and in the  
13 water treatment process. It provides a very valuable  
14 function for the treatment plant.

15 As I said before about half of the river  
16 silt that enters the plant or the Dalecarlia Reservoir  
17 from the river settles out by gravity in the Dalecarlia  
18 Reservoir. That is a tremendous benefit because it helps  
19 reduce the amount chemicals that has to be added to the  
20 remaining 50 percent of the residuals.

21 The concern we had with these alternatives  
22 -- the principle concern was we're building something in  
23 the reservoir, so we're making it smaller and at some

1 point we're starting to impact it's effectiveness to  
2 service as that initial gravity settlement or a treatment  
3 step. So we had a concern about that.

8-80-NB

4 UNIDENTIFIED SPEAKER: What is the next  
5 set?

6 MR. PALEN: The next set involves -- six  
7 or seven alternatives involves -- eight alternatives that  
8 involve some type of constructed facility at the other  
9 water treatment plant owned and operated by Washington  
10 Aqueduct at the McMillan Water Treatment Plant, which is  
11 located in Northeast, D.C. And these are -- I apologize  
12 for the numbering in these. We had a previous scheme for  
13 how to do deal with these slides, so forget the wacky n  
14 numbers. But the numbers are correct. They're just not  
15 in order.

16 Again, as stated in the previous set of  
17 alternatives, there is some commonality here in the  
18 criteria used to eliminate all eight alternatives. And I  
19 am going to go through each one and describe what it is.  
20 But the commonality revolves around the fact the  
21 residuals are really being produced on this side of D.C.,  
22 either at the Dalecarlia Water Treatment Plant or at the  
23 Georgetown Reservoir two miles down the road.

1                   But the alternative here assumes we're  
2 going to build some sort of facility at McMillan, which  
3 is six miles away across D.C.

4                   The feasible way to get from point A to  
5 point B with pipeline residuals is to go in what is  
6 called the City Tunnel, which is an existing water  
7 conduit that is about 100, 150 feet below the ground  
8 surface. It was constructed, I believe, between the late  
9 eighteen hundreds and the early nineteen hundreds. It is  
10 like a nine-foot diameter tunnel, board and rock.

11                  The concern we had with this grouping of  
12 alternatives, given that it had to involve construction  
13 in that tunnel, was that construction would probably take  
14 between one and two years to complete. During that time,  
15 the tunnel would have to remain dry and the McMillan  
16 Water Treatment Plant would essentially be out of service  
17 because there is no other way to get water from this side  
18 of the river over to the McMillan Water Treatment Plant.

19                  We're kind of over here at Dalecarlia,  
20 right on the border of D.C. and Maryland. The McMillan  
21 Water Treatment Plant and reservoir is over here. And  
22 this is the connecting tunnel.

23                  This tunnel goes from the Dalecarlia Water

1 Treatment Plant down to the Georgetown Reservoir where  
2 treatment is occurring, sedimentation is occurring. Then  
3 that settled water going to McMillan goes through this  
4 conduit, or called the City Tunnel, over into a reservoir  
5 and then ultimately into the McMillan Water Treatment  
6 Plant for final treatment of that portion of the water  
7 that goes to the eastern side of D.C.

8                   So, as I mentioned, this alternative, or  
9 this set of alternatives, we would have to work in the  
10 City tunnel, dewater it, which is a bit of uncertain  
11 thing to think about. The tunnel was built a long time  
12 ago. The precise condition of this tunnel is not known.  
13 It hasn't been dewatered for a number of decades. So  
14 here was some uncertainty as to the length of time it  
15 might take to dewater due to its conditions, do other  
16 fundamental fixes that might need to be made to the  
17 tunnel as you're building a parallel pipeline through it.  
18 That related into a certain general uncertainty as to  
19 whether the alternative was feasible.

20                   And then there was this issue of it will  
21 probably take two years to do it. It is difficult  
22 construction in a tight location, the conduit, and it  
23 involves just building difficult things in those confined

1 spaces.

2                   The general feeling about losing  
3 McMillan's production for perhaps two years was too much  
4 of a negative impact on the overall reliability of the  
5 water production system in general, especially bearing in  
6 mind that during that same time frame we would also have  
7 to be doing improvements to the Dalecarlia water plant to  
8 change the way its residuals were removed, so from say  
9 the sed basin.

10                   So, if we only had to do this tunnel and  
11 only had to take Dalecarlia water -- the McMillan water  
12 plant out of service, it would be marginal, but given  
13 that we were also in the parallel having to do Dalecarlia  
14 water plant improvements, it just was too much risk to  
15 the overall production capability of the water system in  
16 general.

17                   There were also other criteria like cost  
18 that came into play here, but the first one I just  
19 described is really the main one.

20                   So, in summary, all of those eight  
21 alternatives were ultimately not carried forward for  
22 further consideration.

23                   Go to the next one. Catch up with the

1 slides here.

2 And then there is only one more grouping,  
3 if I've done my math right. We'll get to those.

4 These final three alternatives involving  
5 building facilities at the Dalecarlia Water Treatment  
6 Plant. Number 24 involves co-processing residuals from  
7 the Forebay in Dalecarlia -- at the Dalecarlia plant and  
8 hauling these residuals off-site.

9 As I mentioned earlier the co-processing  
10 is thought to have inherent disadvantages over individual  
11 processing, so this alternative was eliminated for  
12 basically the same reasons, the reliability and  
13 redundancy reason.

14 The next alternative, 25, involved  
15 processing the residuals at Dalecarlia and hauling those  
16 off-site, processing Forebay residuals by current methods  
17 and hauling them off-site. It is essentially the same as  
18 the last alternative without the coprocessing. So by  
19 eliminating the coprocessing alternative and keeping this  
20 one, which was our outcome, for further study, we'll  
21 really trying to retain the better of the two and get rid  
22 of the disadvantages of the weaker.

23 MR. CAMPBELL: Was there a truck issue



1 related to the former one, the coprocessing, was there  
2 more trucks associated with it?

3 MR. PALEN: Well, as I stated before, the  
4 coprocessing results in a net increase in the amount of  
5 residuals that we need to -- that will be produced  
6 because we can't get it as dry when it is processed  
7 together. So that would, in this case, translate to a  
8 slight increase in the number of trucks that would have  
9 to move through the neighborhoods to dispose of this  
10 material off-site.

8-81-EB

11 UNIDENTIFIED SPEAKER: What is the current  
12 methods for processing the Forebay residuals?

13 MR. PALEN: The current method is to  
14 periodically dredge out the Forebay. I could probably be  
15 a little more accurate in the timing of that, but I know  
16 it occurs every year. I don't know the exact or the  
17 month of the year. It is then stored in an area adjacent  
18 to the Forebay where some settling can occur. Some of  
19 the clear liquids can come off and the solids can settle  
20 down a little bit, but it is still a fairly wet material.  
21 It is then removed periodically, I don't know about every  
22 year, I don't think it is, and placed on a pile up near  
23 -- sort of across from the back end of Sibley Hospital

1 where it is allowed to gravity drain and then  
2 periodically hauled off-site, I think, in general in the  
3 area of five to ten years, although it has been different  
4 intervals over time as I understand it.

5                   So it is a pretty simple process, in  
6 considering that it is mostly silt and sand out of the  
7 Potomac River. There is no chemicals added to it. It is,  
8 I think, an appropriate process.

9                   The final alternative, number 26, was one  
10 of those added as a result of our scoping meeting. It  
11 involved using new technology, plasma oven processing at  
12 Dalecarlia followed by hauling the material off-site.

13                   Now, plasma oven technology would generate  
14 a very, very small volume compared with the dewatering  
15 technology that we were talking about, or most of the  
16 alternatives that might make it 30 percent solid material  
17 and 70 percent water.

18                   However, this alternative was not retained  
19 once we examined it, we did some study of the technology  
20 itself, for a couple of reason. One was it, as in the of  
21 some other alternatives and technologies, added to the  
22 technology. We still had to thicken, pump, dewater the  
23 residuals with the types of technologies were talking

1 before, getting the material dry enough to then put it  
2 into the plasma oven to make that technology feasible to  
3 function.

4                   So there was a cost added for using these  
5 technology in addition to everything else. It is also a  
6 rather innovative technology. It is a cutting-edge type  
7 of technology. It is not used for this type of residuals  
8 processing activity in the wastewater industry to our  
9 knowledge anywhere, certainly not in the United States.  
10 It is a pretty energy intense technology because we're  
11 talking about processing a waste that does not have much  
12 fuel value, if you will. It is earth, sand, and  
13 turbidity from the river and it is coagulant chemicals.  
14 None of those have much BTU fuel value.

15                   This technology is a lot more feasible  
16 when you're talking about processing some waste that has  
17 some inherent fuel value to it, so you don't have to just  
18 add a lot of either natural gas or some other fuel supply  
19 to heat up the material to say 3,000 degrees C, which is  
20 the kind of number that this technology uses, so that you  
21 can reduce the volume of the material.

22                   So for a variety of reasons, this  
23 technology was not viewed as practical at this time and

1 it was not carried forward for examination. But it was  
2 -- like I said, one of those where the citizens had  
3 suggested an alternative and we did an evaluation of it  
4 and that was included in the feasibility study.

5 So, in summary -- turn to the last slide  
6 -- for this group, we retained number 25, which is known  
7 as our trucking alternative in simple vernacular.

8 In summary of overall, we retained 4  
9 alternatives, and they include the following, of the 26.  
10 One is to discharge to the Potomac River, the no action  
11 alternative. One is number 2, the monofill alternative  
12 in simple terms. Number 5, the new pipe to the Potomac  
13 Interceptor and dewater at Blue Plains. And number 25,  
14 which I just described, which is processing at Dalecarlia  
15 and hauling off-site by truck.

16 That pretty much covers what I would like  
17 to cover in these very short version of this. I did  
18 along the way here give you much of the detailed  
19 information that I had in my other notes. I don't know  
20 if I did 40 minutes, but I tried to make this as clear as  
21 I could.

22 Any questions? Yes.

23 UNIDENTIFIED SPEAKER: I have a question

**8-82-EB, HA**

1 and a comment sort of also. You indicated that almost  
2 all of the alternatives you looked at were things that  
3 had come out of studies that had been done before, other  
4 reports. The only two really that are new and different  
5 are the use of the barge and the plasma oven. And I  
6 guess it just strikes me that it is sort of nice to come  
7 up with some new -- something new and different. And  
8 both of those, you said, were innovative and they weren't  
9 proven, so let's eliminate them.

10 And I wonder if they should be looked at  
11 more closely. The barge is -- you said a pipeline has to  
12 go through the C and O Canal area. Well, maybe that  
13 could be done easily. It's not that far.

14 The plasma oven, how many trucks would  
15 that mean then going out and how much more does it cost?

16 MR. PALEN: Let me do the plasma oven  
17 first.

18 UNIDENTIFIED SPEAKER: Okay.

19 MR. PALEN: The costs of the plasma oven  
20 are a little more conceptual because of the innovative  
21 nature of the technology, the fact that it hasn't been  
22 applied.

**8-83-EB**

23 UNIDENTIFIED SPEAKER: Where has this been

1 used? You said in other parts of the world.

2 MR. PALEN: Where is this technology used?

3 It is really used for treating other types of waste.

4 MR. FLEISCHER: It is used -- well, not a  
5 lot, but it generally discussed for use with hazardous  
6 waste and things like that, hazardous waster materials  
7 that you want to completely destroy.

8 MR. CAMPBELL: And also things the burn.  
9 They tend to be organic.

10 MR. PALEN: It is a very expensive process  
11 to operate as well as build. It's is very, very complex  
12 in terms of the machinery. It has air permit issues  
13 because you're burning stuff here. It's not an  
14 incinerator, but if I would characterize it as air  
15 issues. But they are not tremendously complex in  
16 permitting and incinerator-type facility because you're  
17 burning quite a bit of fossil fuel or something to get  
18 the temperature up high enough to essentially remove the  
19 majority of the mass of the solids and turn it into an  
20 elemental form, if you will.

21 So the cost we estimate associated with it  
22 would be probably an additional \$20 million to add this  
23 facility on top of everything we are already going to do.

**8-84-AB, EB**

1 UNIDENTIFIED SPEAKER: Ninety-five  
2 million?

3 MR. PALEN: Well, not as high as that, but  
4 \$60 million kind of number for what we were envisioning  
5 now, so it is probably 80 or more.

6 I think my major concern with it was that  
7 it's just -- I'm an engineer that does cutting edge  
8 things in general in water treatment. This is very  
9 cutting edge. It is not a little cutting edge. It is  
10 very cutting edge. So at some point you get into  
11 questions about just how far out on that do you want to  
12 be and how reliable will that system be. Not that they  
13 shouldn't consider new things, but there is a point where  
14 I think a little too much innovation. It might be just a  
15 little early for this technology, let's put it that way.

**8-85-EB, GB**

16 UNIDENTIFIED SPEAKER: Do you know how  
17 much it would reduce the -- you know, the amount of  
18 residuals that have to be trucked away?

19 MR. PALEN: I don't have that number in my  
20 head, but it essentially turns into a solid material with  
21 very, very little water because of the temperature being  
22 used. So it is almost like an ash material that results  
23 from that process. As opposed to it going from 30

1 percent solids to 50 percent solids, it goes to 90 -- I  
2 don't know the right number, but say 99 percent solids or  
3 something.

4                   So you haul of a very, very small  
5 material, volume of material. But one of the interesting  
6 things you have to ponder is where you put this stuff  
7 when you concentrate things that much and you add that  
8 much heat to it, you do tend to change some of the forms  
9 of these materials, so I couldn't say for certain that we  
10 might not turn a waste that isn't hazardous into one that  
11 is by all of this concentration that is occurring because  
12 all of the mineral and materials are still there in some  
13 form. So that would be one of my other concerns with  
14 this before I would try to actually implement it.

15                   UNIDENTIFIED SPEAKER: So there is a lot  
16 we don't know about it.

17                   MR. PALEN: There is a great deal -- this  
18 one is a lot different than the other alternatives in  
19 terms of the level of uncertainty.

20                   MR. FLEISCHER: May I talk about the barge  
21 a little bit. Glenn went over it fairly well, but --  
22 yeah, I'll just talk about some of the issues that came  
23 up.



1                   We have an arm or a subsidiary of CH2M  
2 Hill that does -- does ports, harbor type of work and we  
3 had some people from that group evaluate the barge option  
4 for us.

5                   Some of the issues that came up -- one  
6 that Glenn mentioned was navigation constraints. There  
7 is eight bridges between Blue Plains and they Key Bridge.  
8 So that's one.

8-85-HA

9                   UNIDENTIFIED SPEAKER: You can't go under  
10 a bridge?

11                  MR. FLEISCHER: You can go under the  
12 bridges, but they are -- some of them are fairly low and  
13 we had trouble finding barges, commercial kind of barges  
14 that you would use for this that could go under the  
15 bridge, particularly the one by National Airport. So  
16 that is one issue.

17                  And the issue of turning radius -- I'm not  
18 a barge person, but turning radiuses of, you know, barges  
19 that weigh tons and tons and tons to get through the  
20 small opening in the bridges is an issue. And we started  
21 out saying, well, if we could have, you know, one barge  
22 going each way per day and the barge got so big it really  
23 couldn't do that, so we ended up having multiple barges,

1 say three -- I can't remember the exact numbers, maybe  
2 three or four each directing each day. Then you get with  
3 issues like what -- are there places for them to pull  
4 over and dock so another barge can go by because the  
5 channels are very narrow. You know, those type of  
6 navigation constraints.

7                   The Coast Guard really doesn't support any  
8 navigation above Key Bridge. You know, for example, the  
9 tourist boats out there, they go to Key Bridge, they turn  
10 around and they come back. So to go further up, if you  
11 decided to put the loading area further up, say all the  
12 way up here or by Georgetown Reservoir, that would have  
13 to be dredged -- that would have to be dredged and  
14 probably blasted because there is a lot of rock in there.

15                   So there is other kinds of navigation  
16 issues that you would have to deal with. And then there  
17 is weather issue. You know, the river itself, you know,  
18 it's a fairly narrow watershed. There are certain times  
19 with hurricanes or whatever that you could not safely  
20 operate the barges. So you need places to dock. And  
21 then you get into the issues of storing residuals so you  
22 can not operate over weekends and over storm periods. So  
23 that, again, adds additional facilities and costs that

1 would have to be born up here.

2 So are some issues that we sorted out.

3 MR. PALEN: One other issue, obviously, is  
4 just the aesthetic impacts of a residuals filled barge  
5 going up and down the riverfront. This is -- a barge  
6 full of residuals, that's not very pretty. So it's  
7 another concern, kind of like a monofill. I'll admit to  
8 that.

9 UNIDENTIFIED SPEAKER: I think after  
10 listening to everybody tonight a lot of people think or  
11 most people think they have been left out of the -- they  
12 have been left out of the process. You've gotten much  
13 further ahead of where the citizens are in this  
14 community. And I live in Spring Valley and I know you're  
15 with the Army Corps of Engineers. And they have lost a  
16 lot of credibility as a result of the weapons of mass  
17 destruction debauch in Spring Valley where they initially  
18 cleared the area and said this is great, there is no harm  
19 and then a couple of years later you found out that there  
20 was a major, major problem down there. And what the --  
21 what the Army Corps did there, and I am sure they were  
22 under a lot of pressure to do this, is they formed --  
23 they formed a citizens committee. And I know it's a

8-86-NB,  
NC, MA

1 product of statute, I realize it.

2                   But they formed a citizens committee that  
3 sat down and meets periodically and goes over various  
4 alternatives and plans, et cetera. And I think you ought  
5 to consider doing something like that. I mean you  
6 suggest that people can come up in November and submit  
7 proposals. I couldn't submit proposals to you if my life  
8 depended on it.

9                   You need a blue ribbon committee of  
10 citizens that are generally affected in this area, that  
11 are going to be affected by this program. You can select  
12 them. You can have a selection committee to select the  
13 committee members like they did in Spring Valley, because  
14 I know, I was part of the selection committee. So you  
15 had scientists, you had biologists, you had engineers, et  
16 cetera, to -- to really do a bang up job and to sit down  
17 and discuss the issues.

18                   What I am really telling you --  
19 suggesting, not telling you, I am suggesting to you,  
20 you've got to go back to square one. You've got people  
21 who are -- your mandate is to act in the public interest  
22 and I am the public that you protect. I got to tell you,  
23 you are in an adversarial role now. I mean, if you

1 haven't noticed that as a result of tonight's discussion,  
2 then you're not hearing it -- then you're not hearing it.  
3 This is an adversarial proceeding now and I think you  
4 have got to do something to bring it back into a  
5 collaborative proceeding. And they attempted to do that  
6 in Spring Valley and they're meeting with some success on  
7 it. Boy, it's like pulling teeth.

8                   And you say you're under deadlines. Well,  
9 you negotiated the deadlines, you renegotiate deadlines.  
10 I mean, it is done all the time. It is done --  
11 renegotiation is done all the time when there is a --  
12 when there is a sounds and rational basis for doing that.

13                   And, you know, I guess my question to you  
14 is what is the downside of delaying this or deferring  
15 what you are trying to do under a negotiated deadline so  
16 that you can give the people in this neighborhood and the  
17 surrounding neighborhoods and opportunity to really feel  
18 that their voices are being heard. And I think you're  
19 missing the boat if yo don't do that.

20                   You're going to run into a lot of -- a lot  
21 of the opposition that you want into this evening and it  
22 will get worse. It will get worse. Because right now  
23 you have given me a fait accompli, three alternatives,

1 one of which is a throw-away. It's an absolute throw-  
2 way. So I'm down to two alternatives.

3 And that is the first I've ever heard of  
4 it and now I'm faced with two alternatives, plus whatever  
5 I can come up with. I can't come up with anything.

6 And the committee that they formed in  
7 Spring Valley -- and, again, I realize that it was  
8 authorized by statute, but they were given funds to go  
9 out and hire experts to help them in their negotiations  
10 over removing these weapons of mass destruction.

11 I don't see what the rush is here.

12 MR. JACOBUS: Well, I appreciate very much  
13 the discussion. I don't want to give a long answer to  
14 that except I understand what you're saying. It is our  
15 desire to through the last couple of meetings discussions  
16 with community leadership of the civic associations, and  
17 our discussions with the EPA to see how to move from  
18 confrontation to collaboration. And I don't have the  
19 answer for you here tonight. I think we have -- we  
20 understand the emotion and the passion by the audience  
21 here this evening.

22 And we will continue with you in this  
23 process. I don't have a specific answer, but I certainly

1 understand and I want to find a way to move to  
2 cooperation.

3 UNIDENTIFIED SPEAKER: Well, what I am  
4 suggesting to you is one of the ways you move to  
5 collaboration is you form some committee of experts that  
6 are taken from this entire group, because you can  
7 negotiate with a committee. You can't negotiate with an  
8 audience of 200 people. You would be out of your mind to  
9 do that. I mean, it is chaos.

10 But if you -- if those 200 people feel  
11 they are being represented by 8 or 9 or 10 people who  
12 have their interest at heart. Because right now you're  
13 in an adversarial situation, the long and short.

14 MR. JACOBUS: I understand and I  
15 appreciate your comment. And I am looking to move to  
16 collaboration.

17 [REDACTED]: A previous gentleman, I  
18 think, made an interesting point to a lot of pressure  
19 you're under as a result of the EPA. And I don't  
20 understand how the EPA works. But do you have any  
21 background on what officials at the EPA entered into this  
22 consent agreement with this Wilderness Institute? Was  
23 this low level staff people or was this at the highest

8-87-MA

1 levels in the EPA?

2 And it's apparent that the Facilities  
3 Agreement between the Corps and EPA put you in this bind.  
4 And I'm just wondering if we were to try and talk to EPA,  
5 who would we talk to and what kind of background who kind  
6 pushed this? Was this the highest level doing to the  
7 White House? Or people at EPA, the Administrator? Or  
8 was this kind of lower level staff people? Do you know  
9 anything about the background so we can get a sense of  
10 how one could even approach the EPA?

11 MR. HEUER: Can I address that just --  
12 And, please tell me, Mr. Jacobus, if I'm stepping out of  
13 line and if I'm misquoting here.

14 Unfortunately, the NWI put some pressure  
15 on the EPA, forced their hand with this permit because of  
16 something that was going on -- the activities along the  
17 river.

18 And this other gentleman here, I only  
19 caught the tail-end of what he was saying. The  
20 Restoration Advisory Board -- he was talking about Spring  
21 Valley and some of the interest in Spring Valley.

22 The activist, whatever, government  
23 investigators, were putting this pressure that ended up



1 coming to Mr. Jacobus' door step. And this kind of  
2 happened almost accidentally through FOIA requests and in  
3 effect a position was forced.

4 Above and beyond that higher level, I  
5 don't know. I mean, obviously all of this is being  
6 looked at, the Army Corps of Engineers, the people in  
7 this room, and hopefully they go back to their bosses at  
8 a high level to say we've got a problem, what can we do  
9 about the problem.

10 But the Restoration Advisory Board is  
11 actually at times (inaudible) of this bona fide  
12 legitimate agency that has to deal with this situation  
13 because they're practice remediation.

14 MR. JACOBUS: I would simply answer your  
15 question, sir, in saying that as a regulated water  
16 authority, our regulator is EPA Region III. The Water  
17 Protection Division is responsible for issuing the  
18 permits. And the official who issues the permit is John  
19 Kapakaza, and he is the head of the Water Protection  
20 Division. And so he was operating under the EPA's  
21 responsibility under the Clean Water Act.

22 Now, in the process of issuing that  
23 permit, they certainly received input from all of the

1 normal sources, public officials, private individuals,  
2 resource agencies, and interest groups. The permit was  
3 appealed. There was an action in the Environmental  
4 Appeals Board for the District of Columbia that was filed  
5 by the National Wilderness Institute, NWI.

6 But the pressure didn't come from NWI, per  
7 se. It came from EPA having the responsibility to issue  
8 the Washington Aqueduct a discharge permit. They  
9 exercised their normal responsibilities.

10 But it would be inappropriate because I am  
11 not a part of that team. They are the regulator. I'm  
12 the regulated entity. If you wish to address those  
13 questions specifically in writing or on the phone,  
14 however you want to do that, it is really Mr. Kapakaza's  
15 decision in how to answer that.

16 But we would give you the benefit of the  
17 fact sheet that we have here. It's at least a piece of  
18 paper in writing that lays out the EPA logic for how they  
19 got to issuing the permit.

20 MR. CAMPBELL: It seems appropriate to  
21 close right now. Everybody is fatigued, including us up  
22 here.

23 So it's safe to say that we learned a lot

1 tonight. We have a lot of material and inputs to sift  
2 through and we have a lot of things to respond to in  
3 terms of getting information out on the website and make  
4 some of the information a little easier to understand.

5 I think it is going to take us some time  
6 to work through the transcript and understand what those  
7 issues are.

8 Also, it is safe to say that we'll be back  
9 in another forum at some time in the fairly near future.  
10 It won't be the next two weeks because we have got to  
11 sift through what has happened here tonight. And we also  
12 have additional things to talk about. Some of the  
13 studies that are ongoing that we described tonight might  
14 be a subject of further discussion. So at some point in  
15 the fairly near future. I would like to thank you for  
16 that.

17 And, Tom, do you have any closing remarks?

18 MR. JACOBUS: I would like to thank you  
19 for coming. I stepped out of the room while Glenn was  
20 going through and I was speaking to the Maryland  
21 delegation. We will look for ways through some  
22 collaborative process, investigation ways of working with  
23 the elected officials and the community associations to

1 bring this process along.

2                   So we very much appreciate your coming out  
3 on such a dark and stormy night. I peaked out there.  
4 It's still dark. It's not quite so stormy. So I hope  
5 you have safe trip home. Thank you very much.

6                   (The meeting ended at 10:15 p.m.)

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CERTIFICATE OF REPORTER

I, Linda M. Kia, the Stenomask Reporter  
who was duly sworn to well and truly report the foregoing  
proceedings, do hereby certify that they are true and  
correct to the best of my knowledge and ability; and that  
I have no interest in said proceedings, financial or  
otherwise, nor through relationship with any of the  
parties in interest or their counsel.

IN WITNESS WHEREOF, I have hereunto set my  
hand this \_\_\_\_\_ day of \_\_\_\_\_, 2004.

\_\_\_\_\_  
Linda M. Kia  
Certified Verbatim Reporter



From:  
Sent: Wednesday, September 29, 2004 4:30 PM  
To: Jacobus, Thomas P  
Subject: RE: Dalecarlia 9/28 Meeting

My number is

In my previous life, I worked at the Montebello and Ashburton WTPs in Baltimore. Montebello treated ~200 MGD. By a quirk of history, they have a ~400 MG surplus reservoir, built for treated water, but used only for recreation (the road around it is popular for walking, jogging, skating, and biking). Back in the 1960s or early 1970s, we started sending the basin cleanout and filter backwash solids to this Lake to meet NPDES permit requirements (we had to meet a 20 mg/l SS limit). ~5 MGD of this wastewater went into the Lake for 30-40 years before someone decided to dredge out the Lake. They also found that most of the material had consolidated, and there was remarkably little material to dredge. The solids leaving the Lake typically were 1-2 mg/l. The 180 MGD Ashburton WTP has a ~20 MG wastelake built for the purpose of allowing the ~5 MGD of basin and filter backwash solids to settle before the overflow is discharged to a stream. This wastelake needs to be dredged every 10-20 years because it begins to fill up and reduce its detention time and effectiveness. I don't know what the capacity of the Dalecarlia Reservoir is, but, if a section could be separated off, only a relatively small volume should be needed to allow the already settled WTP solids to resettle. Just a thought.

9-1-EB





-----Original Message-----

**From:**  
**Sent:** Wednesday, September 29, 2004 10:27 PM  
**To:** Peterson, Michael C WAD  
**Subject:** Residuals project question

Michael,

I am trying to understand the three chosen alternatives a little better, hoping that by understanding these I could perhaps come up with some possible new ideas that are feasible, at least in principle. Could you please help by providing some insight into the following questions?

10-1-AB - There are two places in the Engineering Feasibility Study (EFS) where you estimate the cost of a pipeline. One is, of course, in the cost estimate for the pipeline to Blue Plains. On page 5-4 of the EFS the cost of building this 13 mile, 12 inch pipeline is estimated at approximately 13.4 million dollars -- roughly 1 million dollars per mile of pipeline. The second place where you estimate the cost of a pipeline is where you estimate the cost of the pipeline for Alternative 8, on page 3-23 of the EFS. Here, a 10 mile, 12 inch pipeline is estimated at 30 million dollars -- 3.0 million dollars per mile. This is 300% of the cost of the Blue Plains Pipeline. Could you explain what drives this difference in cost?

10-2-DI - You are using a diameter of 12 inches for the pipeline to Blue Plains. Based on your calculation on page 3-19 of the EFS I understand that a single 12 inch pipeline by itself is enough to convey the maximum estimated volume of 1.15 mgd of thickened residuals shown in table 3-3. Are you going to use 100% redundancy and build a dual 12" pipeline, or are you just building a single 12" pipeline? If you are doing the latter, why wasn't redundancy needed?

Thanks in advance for your help,

-----Original Message-----

**From:** Peterson, Michael C WAD [mailto:Michael.C.Peterson@wad01.usace.army.mil]  
**Sent:** Monday, August 30, 2004 10:02 AM  
**To:**  
**Subject:** contact information

Please do not hesitate to contact me if you have any questions.

Very Respectfully,

MICHAEL C. PETERSON  
Environmental Engineer  
Washington Aqueduct  
5900 MacArthur Boulevard, NW  
Washington, DC 20016-2514  
michael.c.peterson@usace.army.mil



Document #11

**From:**

**Sent:** Thursday, September 30, 2004 10:40 AM

**To:** Jacobus, Thomas P; Peterson, Michael C

**Subject:** Suggested Alternative

Goodmorning Washington Aqueduct!

11-1-GD

Sounds like there is still a hostile crowd out there.

I walked behind the aqueduct, down the CCT and discovered there are additional buildings on the back side of the aqueduct and an access road that runs under the CCT. Could you build a road from that part of the facility that would exit onto Clara Barton Parkway? It would allow you to truck out the back rather than through the community. Even if this alternative works you would still be faced with the need for a centrifuge and I understand Brookmont is not happy about the proposed location or the size of the building.

Just a thought.



**Statement by Brookmont Civic League**  
**on**  
**Proposed Water Treatment, Residual Management Process**

For the record, my name is Jim O'Meara, a resident of the 6000 block of Board Street. Like many residents in Brookmont, I am the water plant's next door neighbor. I am speaking this evening on behalf of the Brookmont Civic League.

I wish I had a more positive statement to make. But, in all candor, we strongly support the Westmoreland Hills and D.C. neighborhood civic associations in opposition to the landfill and trucking proposals in the Engineering Feasibility Study.

Whether it is the clear cutting of a large swath of trees, the installation of an industrial landfill, or sending alum sludge-loaded dump trucks through quiet residential neighborhoods, your consultant's suggestions, I regret to say, are seriously misguided and inappropriate.

The Army Corps cannot resolve one debatable environmental issue—the discharge of alum into the Potomac River—by adopting approaches which are environmentally far more odious and onerous to the neighborhoods around the plant, including Brookmont.

12-1-IA

**So, we in Brookmont stand with the other neighborhoods in full partnership to oppose this plan, and more particularly, the process by which it was developed.**

**Additional Issue:**

I would like to focus on an issue that is the central to all three residual disposal options: the proposed construction of the de-watering and thickening facility that would create the alum sludge in the first place.

-The water plant managers have shaped this discussion almost exclusively on residuals disposal. Largely overlooked in this discussion, is the construction in Brookmont's back yard of the gigantic facility that would create the alum sludge in the first place.

-Reserving the right to object to the construction of that plant, and I will so object, strenuously, if this process is not reversed, I would just comment on some particular points which led us to this position:

**General**

As proposed, this building offers no buffers, no setbacks, no visual relief on the side that confronts Brookmont.

By its function and design that facility would maximize its visual intrusiveness. It also has great potential to create thunderous industrial noise, widespread unpleasant odor, glaring light, and other forms of pollution in Brookmont.

-In short, your proposed building would be noisy, smelly, towering eyesore, and a massive intrusion imposed by the Corps on its Brookmont neighbors.

In terms of offensiveness, this facility is surely in a league with the proposed landfill operation.

### **Specific Issues:**

#### **Site Selection**

The Engineering Feasibility Study asserts that the site for the de-watering and thickening facility was identified in earlier work. This work was not shared with the neighbors, who were most effected by this siting. Why were we not consulted? Other tracts of water plant land are available, and less intrusive.

12-2-BB

The consultant's current proposal would place the new de-watering facility immediately against the rear fence which serves as the plant's back property line (see Figure 4-8 in the Engineering Feasibility Study). Thus the proposed plant, at 750 feet from the intersection of Board and 61<sup>st</sup> Streets) could not possibly be any closer to Brookmont. And yet, again, the citizens of Brookmont were not consulted on the matter of siting the plant.

Further, the consultant's site plan makes no accommodations for setbacks or buffers on the Brookmont side, a common feature in most construction.

The plan *discusses* buffers, but offers none where they are most needed, to mask the plant from the people most effected by its construction--- the Brookmont neighborhood.

#### **Loss of trees**

Instead of creating a buffer, the plan actually eliminates one. The plan would require clear cutting a block long stand of 40-50 foot white pine trees at the back perimeter of the water plant.

12-3-BB

These trees would be replaced by a narrow strip of asphalt pavement...a narrow truck roadway between the fence and the back wall of the proposed towering building.

Unavoidably, these truck and plant operations would be seen and heard, in our neighborhood.

Cutting down the pine trees would be sadly ironic, really.

Those trees had been planted by Dalecarlia in the 1970s, at the request of the Brookmont Civic League, following construction in that area of some single story buildings and sheds. The Corps in an neighborly gesture, attempted to mask these buildings and nearby light poles.

Notwithstanding that effort, which was and is appreciated by Brookmont, the low lying buildings and the light poles are still somewhat visible, and the sounds of the occasional trucks operating in that area are quite audible, serving as a possible harbinger of worse things to come.

## **Height of the Building**

The proposed calls for a building that soars an estimated 120 feet above Brookmont. The proposed structure itself is at least 80 feet tall; it would sit on a lot that is an estimated 40 feet above the intersection of 61<sup>st</sup> and Board. However, the building might be even higher. Section 4.3 of the consultants' report emphasizes that "the thickness be raised out of the ground to the maximum extent possible to minimize excavation depth and eliminate the need for a deep thickened residual pump station."

12-4-BA

With massive 10 feet by 20 feet lighted windows, the building would stand like a skyscraper intruding on a quiet suburban neighborhood.

Surely the building would be in the same leagues as the landfill proposal, and both should be scrapped.

## **Sound and Odor**

Your consultants are proposing to expand massively an industrial activity in a residential neighborhood.

Since these plants are normally sited far from population centers, here are some of things we are concerned about: massive metal plant doors clanging open and shut, dump trucks straining under full loads, backing up with their beepers sounding, roaring and spewing diesel fumes near our homes.

12-5-BA

12-6-BG

Worse, the constant industrial sounds of sludge being sucked up, piped, or otherwise transported to a thickening facility would be a constant annoyance.

By proposing such a building, the large glass windows and back doors of which open onto our you would insure our neighborhood of the full the grind of mechanical noise. Continual truck traffic along that fence line will provide additional noise.

## **Conclusion**

The overwhelming negative aspects of this proposal, lead us to reject it completely. Building a de-watering and thickening facility here amounts to an effort to shoehorn an new industrial plant into a long established, quiet residential neighborhood, and it is simply wrong to try attempt it. The Corps should rethink the entire issue, and handle the de-watering and thickening at a more appropriate site.

With the plant, there is no need to consider residual disposal options.





**Document #13**

From: Peterson, Michael C WAD [Michael.C.Peterson@wad01.usace.army.mil]  
Sent: Tue 10/12/2004 1:42 PM  
To: Gamby, Patricia A WAD; Jacobus, Thomas P WAD; Palen, Glenn/WDC  
Cc:  
Subject: cold call from lehigh cement

I received a call from Lehigh cement representative who indicated that they were interested in seeing if our WTR would use usable in their cement-making processes. Apparently their plant manager, who is from Germany, is aware of the use of WTR for cement making in Europe. I told him that we were interested in identifying all of the potential uses for the material. He indicated an interest in getting a sample and doing the oxide analysis to determine if it would be suitable. I told him we might not be able to give him a sample, but we might prefer to run the analysis ourselves.

Apparently the plant at Union Bridge, MD is the biggest cement making plant in North America.

He proposed meeting here on Tuesday to get a better understanding of our situation and residuals. Let me know if you think that we should:

- 1- meet with him at this point
- 2- give him a sample or run a sample ourselves

**13-1-EA**

Thanks,

Mike



**Document #14**

**From:**

**Sent:** Friday, November 05, 2004 2:15 PM

**To:** Peterson, Michael C WAD

**Cc**

**Subject:** Washington Aqueduct Residuals Treatment Alternative

Mike,

I'd like to propose a residuals treatment alternative that addresses neighbors' concerns regarding building the centrifuge and trucking sediments through residential neighborhoods.

Instead of removing sediments at the Water Filtration Plant on MacArthur Blvd., consider a new sediment treatment facility and centrifuge near the Beltway and Clara Barton Parkway, perhaps on the Carterock Naval Surface Warfare Center or David Taylor Model Basin property.

If homeland security issues are a concern, a new water treatment facility might be built using Homeland Security funding on the Great Falls C&O Canal National Park property further upriver, away from dense residential development.

Locating the sediment treatment facility by the Beltway would provide better access for trucking. This would also provide an opportunity to build a modern water treatment facility. Final chemical treatment might still occur at the Water Filtration Plant, or it might only be used for storage.

**14-1-BB**

Let me know if you have any questions.

PS: What is the chemical analysis of the residuals? Can the residuals be processed to make a usable product such as what the Maryland Department of Environmental Services does with composted sludge? Topsoil? Soil amendments? I understand alum binds with phosphate and reduces phosphate runoff from farmland. Can the alum be reused at the Blueplains Sewage Treatment Plant? What do other water treatment facilities do with residuals? Let's think outside the box.

**14-2-EA**



**Peterson, Michael C WAD**

**From:** WWW [www@wfpub.usace.army.mil]  
**Sent:** Tuesday, November 09, 2004 11:37 AM  
**To:** Peterson, Michael C WAD  
**Cc:** Schultz, Paula NAB02  
**Subject:** Comments on Proposed Water Treatment Residuals Management Process

Specific  
Comments Under what law or regulation is it forbidden to return the silt removed from Potomac River water to the river from which it came? This would seem a natural and environmentally neutral procedure as well as more economical and less disruptive. Could not the provisions preventing this approach be challenged or changed?

Name  
Agency Spring Valley-Wesley Heights Citizens Association  
E-Mail  
Address  
Telephone  
Number  
Please  
Contact

15-1-JA



Peterson, Michael C WAD

From: WWW [www@wfpub.usace.army.mil]  
 Sent: Tuesday, July-13, 2004 8:23 PM  
 To: Peterson, Michael C  
 Cc: Schultz, Paula  
 Subject: Comments on Proposed Water Treatment Residuals Management Process

16-1-NC

I am a resident of the Westmoreland Hills subdivision which is immediately adjacent to the facility where the Corp of Engineers proposes to dump sludge of enormous proportions. Although this project appears to have been in the planning and development stage for many, many months, I only today received a notice from our community association disclosing the existence of this project. It is apparent that there has been a calculated effort to keep the information about this project from the neighborhoods which are being impacted by this project. Why has there not been any direct disclosure and announcement to the citizens of this community about this project in order to obtain our input after full disclosure? Would any individuals from the Corps of Engineers want their neighborhood to be treated in this manner? How can the Corps of Engineers honestly represent to the public that they are dealing in a fair and forthright manner with the local citizenry when they surprise the community at this late stage of the project? Good faith and fair dealing requires that you hold public hearings and forums, including reasonable notice to community and civic leaders, in the community affected by your project before proceeding any further. Anything less than that smacks of heavy handed government which any citizen, including employees of the Corps of Engineers, would reject out of fundamental fairness.

Specific  
Comments

Name  
 Agency  
 E-Mail  
 Address  
 Telephone  
 Number  
 Please Contact  ContactRequested





**From:**  
**Sent:** Wednesday, November 10, 2004 12:21 AM  
**To:** 'Peterson, Michael C WAD'  
**Subject:** RE: Comments on Proposed Water Treatment Residuals Management Process

Thank you for your e-mail. Yes, the rest of my comment was cut off, which seems odd and a little troubling. I am also troubled by the fact that these figures are not publicly available on your website; I believe that this omission prejudices the public's ability to review and comment on your plans. I certainly have not had enough time to read through all of the materials since I only learned of your plans two weeks ago and only received a letter from you yesterday.

17-1-DA

I wanted to comment that in your analysis of Alternative Four, I think that you are too deferential to WASA's institutional concerns and that these could be dealt with by paying for better facilities at Blue Plains. I also do not understand why waiting till 2008 for new digesters is problematic since my understanding is that the dewatering and thickening plant would not be functioning till then anyway.

17-2-GI

Also I am troubled that you did not adequately assess the costs of various options that you selected. How did you calculate the costs of trucking residuals given rising oil prices? I also did not see discussion of the costs of the pollution to the air from trucking, not to mention the costs (including increased noise, lights, and pollution) if the plant is located near a residential community. Thank you for your consideration.



18-1-BB, BC,  
BG, GA

Specific Comments
Name
Agency
E-Mail Address
Telephone Number
Please Contact

Hello Delcarlia Officials: As 25-year neighbor of the Delcarlia Water Treatment plant I am totally against your plan to build a sludge factory here! You will ruin our living environment with the industrial noise, smell, and huge trucks constantly (24/7!) rumbling through our peaceful neighborhood. Do NOT build the sludge treatment facility here. Please figure out a better, less destructive solution! Regards,

-----

ContactRequested



**From:**  
**Sent:** Thursday, November 11, 2004 12:05 PM  
**To:** Peterson, Michael C WAD  
**Cc:**  
**Subject:** sludge treatment plant

Dear Mr Peterson—

19-1-GG

While I confess that I am only minimally informed about the various options on the table to deal with the sludge issue, and certainly have no alternative to propose, I am writing to express my concern that a plant has been proposed to process this material in a residential neighborhood. I cannot imagine that sludge deemed too harmful to enter the river is sufficiently benign to be processed and trucked through a wooded area of homes filled with children.

19-2-BB

I also am sympathetic to the concerns of residents who fear a 24-hour factory operation of any kind so close to their homes.

I would appreciate your adding me to any email alert list on this issue, and keeping me informed as you consider alternatives to deal with the sludge.

Thank you for your consideration of my views.

Sincerely,

---

The closer you are to death  
The harder you cling to life.  
TOUCHING THE VOID  
Premiering on PBS, November 21, 2004 at 9 PM ET/PT.

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**From:**  
**Sent:** Thursday, November 11, 2004 1:08 PM  
**To:** Peterson, Michael C WAD  
**Cc:**  
**Subject:** Dalecarlia Sludge Alternative proposals

Please evaluate the following options:

20-1-DA

1. Pipeline to Blue Plains without Dalecarlia dewatering facility

20-2-BB

2. Options with underground dewatering facility

20-3-BB

3. Options with dewatering facility built over the existing settling pools in D.C

20-4-BB

4. Options with dewatering facility built in Dalecarlia service area (DC or VA)

20-5-BA

5. Options with zero emissions- odor/gas/sound etc. and no new visual and sound impacts on existing homes in the neighborhood.

Please acknowledge receipt of this message.

Thanks!

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21-1-IA	Specific Comments	Residuals should be removed by best possible/practical means rather than clearing a forest in the midst of a residential area and creating a huge waste site. Nine to ten trucks per day or even double that amount on public thoroughfares to existing sites which want or at least accept this waste is preferable to trucking and creating a new local dump on the site of a beautiful green space which could only serve as a temporary monofill solution anyway. The latter is offensive to the environment and good judgement.
	Name	
	Agency	
	E-Mail	
	Address	
	Telephone Number	
	Please Contact	ContactRequested



November 12, 2004

Washington Aqueduct  
5900 MacArthur Boulevard, NW  
Washington, DC 20016  
Attention: Michael Peterson

Subject: Proposed Water Treatment Residuals Management Process, Request for Comments

Dear Mr. Peterson:

SCS Engineers is a civil and environmental engineering firm that has been retained by the Concerned Citizens, a coalition of neighborhoods surrounding the Dalecarlia Reservoir, to review background information on the Proposed Water Treatment Residuals Management Process and to offer comments on behalf of the Association. We understand that the Washington Aqueduct Division of the Baltimore District, U.S. Army Corps of Engineers will accept comments on alternatives not already considered in the Engineering Feasibility Study and Project Introduction and Description of Proposed Action and Alternatives prepared by CH2MHill for the Corps in May of this year.

The following alternatives for management of residuals do not appear to have been considered in CH2MHill's work to date:

1. Use new or existing outfall piping to transport residuals to Potomac River without dewatering, and transport via barge to bioreactor landfill.

Bioreactor landfills are emerging as a technology of choice for disposal of municipal solid waste. Bioreactor landfills are able to accept wastes with liquids (such as water treatment residuals), because bioreactors use the extra moisture to enhance biodegradation and production of landfill gas. EPA recently published its final rules to promote bioreactor landfills (69 Fed. Reg. 13242, March 22, 2004).

There are several regional landfills in Virginia that can receive wastes conveyed by barges, and that apparently could qualify under the new EPA rules as soon as next summer (when Virginia regulations will adopt the new Federal program). Management of water treatment residuals in such a bioreactor landfill would be superior to other dewatering techniques, if for no other reason than the liquids would be used beneficially in treating municipal solid wastes.

The Feasibility Study considered a barge alternative, and screened it from further consideration based on reliability, land use (zoning) and proven methods criteria. We



22-1-HA

are surprised that of all Federal agencies, the U.S. Army Corps of Engineers would consider active maritime uses of navigable waters to be inconsistent with appropriate uses of the Potomac River shoreline. Regarding the "proven methods" criterion, it is remarkable that the Corps would consider barging—the very reason there is a C&O canal in the first place—to be unproven technology.

We agree that any barging alternative should include flexibility (e.g., storage capacity) to accommodate periods where unusual conditions such as floods, icing, etc. preclude barging. Suitable tanks (e.g., adequate to store the volume of residuals produced in a month) located near the banks of the Potomac River would be one approach to providing operational flexibility. If the Corps desires to limit barge traffic to a point closer to Blue Plains, then storage tanks provided as part of this alternative could be located at a point downstream, with a new pipeline constructed in the riverbed to connect the current outfall and the new tanks.

2. Use existing outfall piping to transport residuals to Potomac River without dewatering, and transport via new riverbed pipeline to Blue Plains for treatment.

22-2-DA, DG

The Feasibility Study does not provide much detail on the current methods used to transport residuals to the Potomac River. Apparently, there is a pipeline that has been used reliably for many years to convey residuals to the River. Use of the pipeline has the advantage of managing residuals without disturbing Dalecarlia neighbors.

An alternative that would use existing pipeline(s) to convey residuals to the River, and then transfer residuals to a new pipeline constructed along the bed of the Potomac River, should be considered. If necessary, a pump station (including one or more tanks) could be constructed near the River to facilitate this alternative.

3. Construct new pipelines within existing pipelines.

22-3-DB, DE

For the pipeline alternatives, it does not appear that the Corps has considered installing new pipelines for residuals within existing pipelines. Obviously, to the extent that existing pipelines can be used, expenses associated with procurement of right-of-way would be eliminated.

Using the existing outfall piping to the Potomac River has been mentioned above. Where the existing outfall crosses the existing Potomac Interceptor sewer, residuals could be transferred to a new pipeline constructed within the Potomac Interceptor, for example, and conveyed either to the vicinity of the David W. Taylor Naval facility at Carderock, or to Blue Plains, for further treatment and transport. If use of the Potomac Interceptor is not viable for any reason, then the new pipeline could be constructed within the existing raw water transmission line to Carderock.

Since Alternative 8 (construction of a new dewatering facility) was screened from further consideration based largely on economic factors, this alternative should be

retained, assuming the economic factors are mitigated by constructing new pipelines within existing pipelines. The same assumptions used regarding land acquisition costs for Alternative 5 would appear to apply with equal force to this variation of Alternative 8. The other screening factor mentioned for Alternative 8 (schedule requirements) also should be mitigated by eliminating the need to acquire land for pipeline right-of-way, and limiting consideration of sites for any new facility to a location (such as the David W. Taylor site in Carderock) near an existing pipeline.

22-4-DG

Another possible pipeline route to the north is the old outfall from the planned (but not constructed) Rock Run Advanced Treatment Plant in Potomac. We understand that the outfall for this plant was to be a pipeline from near the Avenal Country Club to a point below Chain Bridge. If this pipeline right-of-way could be used, then the cost of constructing a pipeline to the vicinity of Interstate 495 would be much lower than that shown in the Feasibility Study.

22-5-DE

The Feasibility Study mentions "ongoing projects" at the David W. Taylor Carderock facility that might prevent adequate acreage being available at this site, however, a more specific evaluation should be performed. Perhaps the mission of the David W. Taylor facility would be well-served by a facility to treat residuals (the Carderock facility has a wastewater discharge permit that limits solids, among other parameters).

This alternative would eliminate the need for residuals truck traffic on the neighborhood streets surrounding Dalecarlia, and would shift the necessary truck traffic to a nearby major highway better suited to it.

22-6-KA

4. Reduce volume of residuals requiring management by relocating or redesigning the intake structure(s).

When the Fairfax County Water Authority (FCWA) recently replaced its former raw water intake near the Virginia shoreline with a new structure near the middle of the Potomac River, one of the stated goals was to substantially reduce (e.g., by 50 percent) the volume of sediment that would be withdrawn from the River. Reductions in sediment withdrawn from the River would be directly related to volumes of residuals requiring management, no matter what approach is taken to managing residuals.

An alternative to relocate or redesign the intake structure to reduce residual volume should be considered, and such consideration formally documented.

22-7-KA

5. Reduce volume of residuals requiring management through active management of raw water intake.

In connection with the new FCWA raw water intake permit proceedings before the Maryland Department of the Environment, there was some discussion of trying to reduce withdrawal of sediment from the River by avoiding raw water withdrawals during periods of high river sediment. Apparently, such an approach was not practical

for FCWA, because it does not have sufficient water impoundment storage capacity at its Corbalis Treatment Plant. However, at Dalecarlia, it appears that the Corps has substantially more impoundment storage capacity than FCWA has at Corbalis.

An alternative to actively manage water withdrawals (e.g., avoid withdrawals during high sediment water flows) should be considered to reduce residual volumes, and such consideration formally documented.

22-8-OA

6. Use alternative processes for coagulation of sediments to reduce the volume of residuals requiring management.

Aluminum sulfate (alum) comprises a significant volume of the residuals produced at the Dalecarlia plant. The Corps should consider alternative proven technologies, such as the use of liquid cationic coagulants, to dramatically reduce the volume of residuals produced at the plant, and thus the volumes of residuals requiring management under any of the alternatives under consideration.

In addition to suggesting the above alternatives for your consideration, we offer several comments on the alternatives analysis included in the Feasibility Study.

#### **Construction of Monofill in District of Columbia Will Require Protracted Permit Process**

22-9-CA

At page 3-3, the Feasibility Study briefly refers to regulations that were reviewed to determine whether a monofill could be built within the District. The regulations cited in the text (§8-1052) pertain to "open" solid waste facilities, and specifically were prepared to address open-air solid waste transfer stations and recycling facilities (not solid waste *disposal* facilities).

In addition to the transfer station regulations cited by CH2MHill, there are prohibitions on dumping that would preclude operation of a monofill on the property of the Aqueduct in the District. Specifically, Title 8 (Environmental and Animal Control and Protection), Subtitle B (Waste Disposal and Management), Chapter 9 (Illegal Dumping Enforcement), of the District of Columbia Code (§8-902) provides:

(a) It shall be unlawful for any person to dispose or cause or permit the disposal of solid waste, hazardous waste, or medical waste in or upon any street, lot, park, public place, or any other public or private area, whether or not for a commercial purpose, unless the site is authorized for the disposal of solid waste, hazardous waste or medical waste by the Mayor.

Definitions are provided at §8-901 for several key terms, including:

"Person" means any individual, partnership, corporation (including a government corporation), trust, association, firm, joint stock company,

organization, commission, the District or federal government, or any other entity.

"Solid waste" means combustible or incombustible refuse. Solid waste includes dirt, sand, sawdust, gravel, clay, loam, stone, rocks, rubble, building rubbish, shavings, trade or household waste, refuse, ashes, manure, vegetable matter, paper, dead animals, garbage or debris of any kind, any other organic or inorganic material or thing, or any other offensive matter.

These terms would clearly appear to apply to the Corps (federal government) and operation of a monofill for disposal of residuals (dirt, sand, gravel, clay, loam, or any other organic or inorganic material). However, there is no current provision in the D.C. Code to obtain a permit or otherwise obtain the Mayor's authorization to construct or operate a monofill. The District does not have regulations for permitting solid waste disposal facilities such as landfills or monofills, and we are not aware of any plans by the District to develop such regulations.

It is unlikely that regulations governing a monofill could be developed by the District in time for the Corps to obtain a permit and construct a monofill in a five-year planning window.

The monofill alternative should not be considered further because necessary regulations and permitting infrastructure are not available to allow it.

#### **Volumes of Residuals Noted in Feasibility Study Require Clarification**

22-10-EC

At page 2-1 of the Feasibility Study, water treatment residuals are estimated to be generated at an average rate of 120 cubic yards per day. Converting to gallons per day, this would be about 24,200 gallons per day. The generation rate of 24,200 gallons per day is much lower than numbers used elsewhere in the report. For example, at page 3-6, it is estimated that the average of unthickened residuals to be shipped to Blue Plains is between about 1.6 million gallons and 8.1 million gallons per day.

On answer to this discrepancy might be that the lower number is a volume of dewatered sludge, while the higher numbers reflect residual volumes with no treatment at all. At page 3-10, it is estimated that an average of between about 390,000 and 2,000,000 gallons of thickened residuals (2 percent solids) per day would be taken to Blue Plains.

Introducing the 120 cubic yard per day average production rate (i.e., for dewatered residuals containing more than 30 percent solids) at the outset of the Feasibility Study presumes that dewatering will occur at Dalecarlia—putting the cart before the horse, and indicating a bias to the report almost as soon as it begins.

The Corps should provide a simple table showing the design criteria for residuals to be managed, including average production volumes, solids content, and chemical content. These should be provided for current technology used at Dalecarlia, and should be compared with

other water treatment systems that currently use Potomac River water (e.g., FCWA) on some consistent basis (e.g., per million gallons of water delivered).

22-11-EC

Next, the Corps should provide simple tables to illustrate how the volumes, solids content, and chemical content of residuals are expected to vary over the design life of the project for each of the alternatives considered. As noted above, we believe the alternatives should consider approaches to reduce the volumes of residuals requiring management.

#### **Operating Costs for Monofill Alternative Appear Low**

The Feasibility Study puts the annual cost of operating a monofill at \$138,000. If true, assuming a 120 cubic yard per day generation rate (seven days per week, water treatment residuals only), the cost per cubic yard would be \$3.15. It is hard to believe that the dewatered residuals could be transported to the monofill for \$3.15 per cubic yard, let alone placed, covered, and monitored for the operating life of the monofill and a 30-year post-closure period.

22-12-AB

Monofill-specific operating costs are probably understated in the Feasibility Study by a factor of five or ten. The annual O&M cost for Alternative 2 (Dalecarlia Monofill) probably will be in the range of \$1.4 to \$2.1 million, including both the monofill-specific operating costs and the other operating costs of this alternative.

#### **The Feasibility Study Ignores the District's Urban Trees Law and Little NEPA**

The Urban Forest Preservation Act of 2002 was passed by the Council in an effort to minimize loss of environmentally important tree cover throughout the District of Columbia. It requires permits for removal of certain trees, and payments into the Tree Fund of at least \$35 for each inch of circumference for certain trees.

22-13-CD

Clear cutting any area of the forested Dalecarlia property (e.g. to facilitate construction of a monofill), will necessarily require compliance with the Urban Forest Preservation Act.

In addition, DC Public Law 8-36, the Environmental Policy Act of 1989, requires that all District of Columbia agencies consider the environmental impact of all proposed major actions prior to issuing any approvals for such actions. It does not appear that the Feasibility Study expressly considers DC Public Law 8-36. It is not clear that the screening criteria used by the Corps to reduce the number of alternatives under consideration are consistent with DC Public Law 8-36, or with NEPA, for that matter.

#### **Summary**

22-14-NB

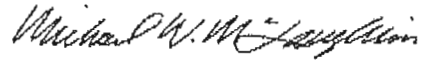
The limited number of alternatives remaining under consideration (three), and the elimination of several alternatives that appear to have relatively little environmental impact (e.g., pipelines to convey residuals to major transportation routes), suggest that the screening process should be revisited to better achieve the goals of NEPA and DC Public Law 8-36.



Washington Aqueduct  
November 12, 2004  
Page 7.

Thank you for considering our comments. If you have any questions, or wish to discuss any of the points raised by this letter, please feel free to contact the undersigned directly.

Very truly yours,

A handwritten signature in cursive script that reads "Michael W. McLaughlin".

Michael W. McLaughlin, P.E.  
Senior Vice President  
SCS ENGINEERS

MWM:bpc



Specific Comments	Have you considered conversion of the water intake from a surface intake to a well based intake system. The current surface intake is the source of the turbidity that needs to be removed. If you switched to a series of properly constructed wells under the river for the intake the turbidity of the water would approach zero and thus you could reduce the costs for sedimentation and eliminate the need for a costly sludge thickening and trucking process. I realize that the well based intake would be costly to construct and operate but it would be environmetally better in at least two ways: 1) vastly reduced turbidity and thus much less need to chemical flocculants to remove sediment; and 2) you could decommission little falls dam and improve fish migration on the river by restoring its natural flow which would work much better then the fish ladder. Please consider this alternative by instructing the engineers to at least cost out what a well based input would be. Regards,
23-1-KA	
Name	
Agency	Citizen
E-Mail Address	
Telephone Number	
Please Contact	ContactRequested



Specific  
Comments

Dear Mr. Jacobus:

Thank you for the opportunity to offer suggestions on additional alternatives for the Residuals Project. I would like to offer some prospective additional alternatives as well as comments on the screening criteria.

24-1-IA

There should be a criterion as to the number of years for which alternatives will be projected to provide adequate service. Alternatives should provide service for at least 30--and quite possibly 40 or 50--years in order to be considered feasible and prudent. The only alternatives with a shorter service life that should be further considered would be interim solutions--to be operated pending completion of a permanent alternative--that would have impacts and costs appropriate to a temporary solution.

24-2-FC

Similarly, alternatives should not necessarily be limited to those which can be implemented by 2009. Feasible alternatives--which meet the other criteria--should be reconsidered for further study if their only deficiency is their inability to be on line by 2009.

24-3-FD

If the DEIS finds that otherwise promising alternatives are available, then potential actions options would include implementation of a temporary interim alternative and/or renegotiation with the EPA to extend the deadline until such alternative could be implemented. The trucking of residuals could be considered a potential interim solution. While this would have definite impacts on neighborhoods served by the roads along the trucking routes, it would have less impact if limited to the time until an additional permanent alternative--such as a pipeline--could be implemented later (but committed to in the Record of Decision). In addition to the proposed pipeline to Blue Plains, pipeline routes that are shorter or with more accessible rights of way should be considered. Two examples could incorporate the former rail line that runs through the Aqueduct, which is now the Crescent Trail. It should be possible to construct a pipeline along this right of way with little or no permanent impact to the Trail as a recreation facility. The pipeline could turn out River Road (similar to the previously considered alternative) or continue east to the current CSX system, where the residuals could be transferred to rail cars for further transport. A pipeline terminating at River Road could deliver residuals to a drying facility located on suitable industrial land near I-495 or to tank trucks for transport to a more remote processing facility. Similarly, a pipeline following the trail downtown might alleviate some of the impacts discussed at the last meeting to properties along MacArthur Blvd, and facilitate! connection to the pipelines previously discussed to Blue Plains or transfer to tank trucks to Blue Plains (as an interim solution if the entire pipeline cannot be completed by 2009). I understand that these may require implementation of an interim alternative if completion by 2009 or renegotiation with EPA are not

feasible. Interim alternatives could include trucking and/or a landfill that avoids permanent impacts to viewsheds, even though both of these alternatives are likely to have impacts that would be undesirable for the short-term and probably unacceptable for the long-term.

24-4-CA

If any landfill is further considered for the short or long-term, I would recommend moving the residuals under MacArthur Blvd through a short underground tunnel (e.g., small rail or conveyor system), similar to but much smaller than the existing rail tunnel through the Aqueduct, or a pipeline in order to obviate the need for trucks to carry the residuals across the street.

24-5-FD

The costs associated with the drying process proposed for a permanent trucking alternative may require modifications for using trucking as an interim measure. Possible modifications could include partial drying with presumably less expensive equipment, or no drying. Both of these methods would likely require additional trucks (and/or substitution of tank trucks), but this may be worthwhile if it affords implementation of a better long-term solution.

24-6-EB

Long-term trucking might be a potential acceptable long-term measure if the number of required trucks could be substantially reduced. As discussed at the last meeting, it may not be clear whether application of certain oven technology would be feasible. I have not been able to review the proposed drying process, though I did examine samples of the dried residuals at the poster session. Centrifuges might increase or speed the water drawn from the residuals if only gravity or air-drying is currently planned. Also, grinding the residuals into a fine powder could increase the density of the residuals, permitting a greater weight to be carried in a smaller volume--and perhaps in a smaller number of trucks or in trucks of smaller size.

24-7-BB

Another option that would lessen the impacts of trucking would be the relocation of part of all of the Aqueduct facility (or construction of the drying facility) to federal lands closer to I-495, such as on part of the Navy's property in Carderock--which must be close to the Aqueduct's current pipeline between Great Falls and Dalecarlia.

24-8-EA

Understanding that the current dumping of residuals does not appear to be a feasible long-term option (though it may be warranted as an interim solution), perhaps there may be dumping options that avoid harmful environmental impacts--such as diluting the residuals through the constant dumping of diluted residual at many sites located to avoid or minimize damage to the environment.

24-9-EA

Finally, perhaps creation or extension of an island or islands in the Potomac could be accomplished with these residuals in a manner that that does not result in the environmental impacts caused by the current dumping. It may be possible to create islands that would be relatively consistent with viewsheds and habitats. This has been successfully done on land with far less environmentally-friendly materials (e.g., Mount Trashmore in Norfolk, Virginia).

Again, I appreciate the opportunity to offer additional suggestions and comments. I encourage the Corps to continue to work with the community to identify and implement a solution (or solutions) that minimizes long-term impacts to our neighborhoods. Sincerely,

Name

Agency

N/A (individual)

E-Mail  
Address

Telephone  
Number

Please  
Contact





Public Submission of Residuals Alternatives

From  
Sent: Monday, November 15, 2004 5:01 PM  
To: Peterson, Michael C WAD  
Subject: Public Submission of Residuals Alternatives

Dear Michael,

Per our conversation of just a few moments ago, I am submitting for your consideration the attached set of alternatives regarding the Residuals Project at Dalecarlia. It is in Adobe Acrobat format, but should you have any difficulties in receiving or reading the document, please contact me and I will deliver a hard copy.

**25-1-QA**

Regards,

SludgeStoppers



Specific  
Comments

Attn: Michael Peterson

Dear Mr. Peterson:

26-1-IA

This comment is being submitted on behalf of the Palisades Citizens Association, which opposes the proposal to truck through the Palisades and other District neighborhoods the residual treatment solids that result from the water treatment process from the Washington Aqueduct.

26-2-DA

We believe you should revisit the only true permanent and environmentally sound solution to this process, namely construction, through horizontal boring, of a pipeline to the Blue Plains Water Treatment facility. Such a pipeline would avoid construction of a centrifuge, make dumping unnecessary, and preserve the character of the affected land in all of the communities that will be impacted.

26-3-IA

We urge rejection of Alternative 2 that envisions disposal of solids at a landfill to be constructed in the Greater Spring Valley area and support, as noted above, Alternative 5, the construction of a pipeline to Blue Plains. Respectfully submitted,

Name

Agency

Palisades Citizens Association

E-Mail  
Address

Telephone  
Number

Please  
Contact



27-1-BA

1. If you plan to build the residuals treatment facility, the round settling tanks can be built into the ground with the top lip at ground level. There is precedence for this strategy on the facility. The ponds on the south side of the facility are at ground level.

27-2-BA, BC

2. Built berms and other architectural landscape devices to hide the facility and control noise.

27-3-BA

3. The truck entrance and exit can be below grade to the west of the Crescent Trail.

27-4-BB

4. Where is the disposal site for the trucked sludge? Has the Aqueduct entered into negotiations with the property owners? What is the capacity of the site and for how long? What will be done when the site is filled? Will you be able to find a site in 20 years within a reasonable distance from Delcarlia?

27-5-BD

5. When will the digital model of the area be available for viewing. How far will the model extend beyond the boundaries of the existing site? I would suggest from Goldsboro road on the north, Masschuetts on the east, Nebraska/Arisona on the south and the crest of the river valley on the west. It might be interesting to include the George Washington Parkway from Rosslyn. I know that the technolgy and tools are available to make the digital process economical. Also, there needs to be a summer and winter conditions for the flors.

27-6-AB

6. The spreadsheet for costs needs serious editing to develop the supporting data for the line item costs.

27-7-AA

7. The 20 year discount rate is a trivial line item.

8. Many government agencies, including the military are evaluating projects from a

Name

Agency

E-Mail  
Address

Telephone  
Number

Please  
Contact

ContactRequested



Specific  
Comments

Ladies and Gentlemen: I am writing to comment on the Water Treatment Residuals Management Project. I live in the vicinity of the Dalecarlia facility in the Brookmont neighborhood of Bethesda. I would ask you to consider the following alternatives in your Draft Environmental Impact Statement.

28-1-DC

1. Convey Dewatered Residuals to Blue Plains Via Potomac Interceptor  
Alternative 4 of the Engineering Feasibility Study of May 2004 only mentions in passing that the residuals could be dewatered at the Dalecarlia facility and then conveyed to the Blue Plains facility via the Potomac Interceptor. The introduction to Alternative 5 then states that such an option would have the same negative consequences as Alternative 4. That is not true. Instead, such an alternative would eliminate all the negative effects on the Potomac Interceptor of Alternative 4. As mentioned in the Feasibility Study, an on-site thickening facility would not only allow control over the solids-collection process and provide a more consistent residuals product. If combined with additional storage facilities, it would also obviate the need to discharge residuals into the Potomac Interceptor during wet weather, which is the only time DC WASA has a problem with Combined Sewer Overflows. During dry-weather days, the Potomac Interceptor has more than ample capacity to accept ! the residuals, which, at a 2% concentration of solids, would still be easily conveyable. An active management of residuals discharge into the Potomac Interceptor would also reduce, if not eliminate, the need for additional treatment capacity at the Blue Plains facility. Such active management, if coordinated properly with the Blue Plains facility, would also allow Blue Plains to adjust their treatment processes accordingly. The technical issues therefore seem relatively easy to overcome. According to the Engineering Feasibility Study, however, no attempt was made to formally contact DC WASA about this option, even though DC WASA is a major offtaker of drinking water from the Dalecarlia facility. That is inconsistent with the Corps' obligations under the National Environmental Policy Act to thoroughly evaluate all reasonably available options.

28-2-DB

2. Convey Dewatered Residuals to Blue Plains Via Pipe in Potomac Interceptor  
If it were not feasible or not economically practicable to treat the water treatment residuals jointly with the incoming sewage at the Blue Plains facility, then dewatered residuals could be conveyed to Blue Plains through a dedicated pipe within the Potomac Interceptor. Such a pipe could consist of either stainless steel or high density polyethylene and would be attached to the inside of the Interceptor using metal brackets. Installing such a pipe within the Interceptor would not appear to be a problem, as the Interceptor is large enough for people to work in on dry-weather days, when only the bottom of the sewer would be covered with sewage. Only where the Interceptor passes under the Anacostia River may it be necessary to lay a separate pipeline along the Interceptor. Given the relatively easy access to the Potomac Interceptor, and the low risk of any negative consequences should the pipe malfunction, it would not

appear to be necessary to install redundant pipes in areas other than the Anacostia crossing. The effect on the capacity of the Potomac Interceptor would therefore be acceptable. Most importantly, it would not be expected to lead to a significant increase in the number of combined sewer overflows. At the same time, the negative consequences (if any) on the treatment processes at Blue Plains could be avoided.

28-3-DB

In conversations with neighborhood representatives, representatives of the Army Corps of Engineers have admitted that similar solutions have been successfully implemented in other cities. Not analyzing such an option thoroughly would therefore be inconsistent with the Corps' obligations under NEPA. Please don't hesitate to contact me with any questions you may have regarding these comments. Yours sincerely, \_\_\_\_\_

Name

Agency

E-Mail  
Address

Telephone  
Number

Please  
Contact





November 15<sup>th</sup>, 2004

Mr. Thomas P. Jacobus  
General Manager  
Washington Aqueduct  
U.S. Army Corps of Engineers, Baltimore District  
5900 MacArthur Boulevard, NW  
Washington, DC 20016-2514

**Re: Brookmont Community comments on and alternatives to the proposed Washington Aqueduct Water Treatment Residuals Management Process Facility to be located at the existing Dalecarlia Facility**

Mr. Jacobus,

This letter is submitted by the Brookmont Civic League on behalf of the residents of the Brookmont neighborhood (see attached Petition).

We are writing to object to the U. S. Army Corps of Engineers (USACE) failure to follow the spirit, intent or letter of the procedural requirements set forth in the National Environmental Policy Act (NEPA) with regard to the proposed expansion of your existing Dalecarlia Facility.

Secondly, we are submitting our questions, comments and criticism of the narrow range of alternatives proposed by the USACE in your Engineering Feasibility Study (EFS) dated May 2004.

Finally, we submit our proposals for viable alternatives that were not considered in the EFS. We believe these proposed alternatives demonstrate a range of appropriate options for a more sensitive and beneficial response to this matter, and point out that they have been generated within the limited time available to us due to the USACE's lack of sufficient and meaningful notification.

29-1-NC

**A. Lack of sufficient and meaningful notification.**

The citizens of Brookmont believe that the USACE failed to act in good faith and consistently with the NEPA throughout the process of moving forward with plans to expand the Dalecarlia Facility. A central component of NEPA is to provide citizens most directly impacted by a major federal action the opportunity to comment on the action and provide alternatives.

The USACE has failed to provide reasonable notice since this project was reintroduced to the public in January of 2004, despite your apparent intention and ongoing efforts to modify the plant for over the past nine (9) years. This lack of notification has resulted in our community having inadequate time to effectively prepare for public meetings and review alternatives.

Secondly, the USACE has failed to provide to the public the critical documentation necessary to appropriately review the project. The net effect has been to limit meaningful public participation.

**B. Failure to assess of reasonable alternatives given the environmental impact.**

The changes proposed by the USACE impose a heavy industrial solution in an existing densely populated residential community. Furthermore, we believe the proposed facility's siting, topography (both existing USACE undocumented landfill surcharge, circa 1960's, as well as underlying natural landforms) and

infrastructure (specifically the surrounding public road and intersection network) are not adequate to the initial construction of and ongoing safe daily operation of this facility.

Such an invasive proposal requires careful consideration of all possible solutions with a view toward finding a sound and minimally invasive result.

Much data is missing from the EFS. Many alternatives were not thoroughly researched, alternatives that may more appropriately meet the needs of the surrounding communities while still satisfying the requirements of the Scope of Statement.

There are several instances in the EFS where a fact is used to screen out one alternative, but not another.

Lastly, the cost analysis appears to be both faulty and misleading. In short, the report generates more questions than it answers.

### **C. Environmentally sensitive alternatives that the USACE must explore.**

We submit our comments on the proposed alternatives and present new viable alternatives not considered by the USACE, consistent with the November 15, 2004 solicitation for comments (extended) deadline set by the USACE.

We are following the NEPA process as fully as possible, given inadequate notice and incomplete documentation. We have made our best effort to identify other alternatives that should be evaluated by the USACE, despite not having access to the original studies that provided the basis for the 26 alternatives considered in the EIS process.

The attached documents from the Brookmont Engineering Committee address:

- Questions, comments and criticism of the narrow range of alternatives proposed by the USACE in your Engineering Feasibility Study (EFS) dated May 2004;
- Six (6) viable proposed alternatives which were never considered by the USACE, which are outlined below:

1. Relocate proposed facility - "pipe within a pipe" solution;
2. Relocate proposed facility - existing Crescent Trail/DC Metro rights of way solution;
3. Relocate proposed facility - existing abandoned sewer line(s);
4. Relocate proposed facility to Carderock (Naval Surface Warfare Center) adjacent to US 495;
5. Relocate proposed facility to Georgetown Reservoir site;
6. Re-site proposed facility within existing Dalecarlia campus.

Our priorities in developing these alternatives have been,

- \* Relocate the facility to an appropriate existing industrial site.

Or, failing that,

- \* Re-site the proposed facility within the existing Dalecarlia plant campus.

### **Conclusion**

The public has a right to participate fully in the development of alternatives to the current water treatment residuals management process. The record must remain open to other alternatives until such time as we have been provided with an opportunity to review and analyze the critical documents that we have requested. Therefore, the residents of Brookmont request that the USACE re-open the NEPA process to provide for meaningful participation and to evaluate the alternatives. We are joined in this demand by

neighboring communities and local leaders. Attached, please find a petition to this end, signed by Brookmont residents.

Sincerely,

*Atty for Madeleine Greenwald*

Madeleine Greenwald,  
President, Brookmont Civic League

Attachment B

COMMENTS ON PROPOSED WATER TREATMENT RESIDUALS MANAGEMENT PROCESS  
PRELIMINARY RESPONSE, 11-13-2004

VIABLE ALTERNATIVES NOT CONSIDERED/EVALUATED BY THE CORPS

29-3-DB

1. Option A: Insert a dedicated pipeline within the Potomac (Dulles) Interceptor from the sediment ponds at Dalecarlia to Blue Plains or to another plant within the Potomac Interceptor sewer system. This option and the next two (B,C), assume use of the \$50 million baseline budget to build a new facility or to expand capacity at Blue Plains or another treatment plant for thickening and dewatering the Dalecarlia residuals

The technology to accomplish this pipe-within-a-pipe approach currently exists, and it has been employed elsewhere. Municipal sewer systems in Albuquerque, Indianapolis, Omaha, Paris, Vienna, Tokyo and Berlin have had metal brackets robotically installed to hold conduit pipe. A dowel and screw process was involved with some of the larger dimension conduits. Although high-tech robotics were involved in these projects, in each instance, the cost was less and the construction process less disruptive than conventional trench systems. Water and gas mains and other pipelines have been inserted into municipal sewers. A German firm indicated that, given the size of the Potomac Interceptor Sewer, a manual application of brackets and sewer pipe would be more cost effective than the use of robotic technology. Thus, this approach meets the "proven methods" screening criteria.

This approach also has a built-in redundancy component: even in the unlikely event the residuals line within the sewer ruptured, it would not pollute the sewage in the Potomac Interceptor sewer. Repairs could be made in an expeditious manner that would not affect treatment of the waste water from in the Potomac Interceptor system. Thus, this alternative also preserves the "quality, reliability and redundancy of the existing water treatment and distribution system" screening criteria.

This approach would send the residuals to an advanced water treatment facility at an industrial site for a level of treatment that would meet the full requirements of the Clean Water Act. These standards are higher than those currently envisioned for residuals treatment at Dalecarlia in the Engineering Feasibility Study. As such, the pipe-within-a-pipe approach would exceed the requirements of the National Pollution Discharge Elimination System permit requirement to reduce or eliminate discharge to the Potomac River. Thus, this approach fully meets the "NPDES permit" screening criteria.

In the Engineering Feasibility Report, alternatives involving new piping adjacent to the existing Potomac Interceptor were eliminated due to zoning, security and land use regulations. The pipe-within-a-pipe alternative would not involve extensive excavation on National Park Service or other sensitive, federally administered, property. Access to Potomac Interceptor would be primarily (if not entirely) through existing manholes/vents. Thus, it complies with zoning and land use regulations, institutional constraints, and other Federal and local regulations, and thereby fully meets those screening criteria.

This approach would eliminate the pollution and other health and safety concerns involved in trucking contaminated sludge along residential streets, past an extended care facility, past a large hospital and through countless school crossings. These concerns were brought up previously. As well, the need for the thickening and dewatering plant would be made obsolete, eliminating the abrupt intrusiveness created by the sludge plant that is just a few yards from the most used recreational trail in the region, and among quiet residential neighborhoods.

This approach would ensure that the permitting timetable could be met. None of the pre-construction archeological surveys mandated by the Historic Preservation Act would have to be undertaken prior to installation of the pipeline. Installation could occur daily in off-peak sewer use hours. Thus, it complies with the requirement to meet "Federal Facilities Compliance Agreement, including scheduling" screening criteria.

The lower sections of the Potomac Interceptor that would be used in this approach range in size from 8 foot diameter concrete pipes to 13 X 7.75 foot rectangular reinforced tunnels in the lower section of the sewer system. The Potomac Interceptor uses a pumping station and a pressure main with a smaller diameter pipe to carry sewage across the Anacostia River. This constraint might be overcome by running the residuals pipe outside the Potomac Interceptor Sewer for that short section. The residuals pipe might be routed in the bridge undercarriage directly below the roadway, and then rejoin the Potomac Interceptor below the pressure line section.

The Potomac Interceptor Sewer on this route is operated and maintained by DCWASA, a major Army Corps of Engineers customer and institutional partner in providing drinking water and treating waste water in the District of Columbia.

In summary, the pipe-in-pipe approach is viable both technologically and logistically. It would comport with the overall purposes of the National Environment Protection Act. It would meet each of the stated objectives of the Notice of Intent in the January 12, 2004 Federal Register Notice. It would greatly exceed the pollution reduction intent of the "NPDES permit" screening criteria. Lastly, and most importantly, it would "minimize, if possible, impacts on various local and regional stakeholders and minimize impacts on the environment (traffic, noise, dust, pollutants, etc)." This solution is the only option that is acceptable to the surrounding communities and must be pursued vigorously. A cost analysis should be completed for this option, one in which the environmental impacts are thoroughly evaluated and costed-out.

## 2. Option B: Route a residuals pipeline primarily along Metro rights of way.

In this approach, a pipeline would be inserted, starting at the former D.C Transit trolley line immediately next to the Dalecarlia settlement ponds. Trenchless technology would be used to send a pipe along that right of way to Georgetown. Continuing on from Georgetown, the Key Bridge would be used to carry the line over the river to the edge of Rosslyn. The trenchless line would be continued a few hundred feet alongside of the George Washington Parkway to a point above the Metro Orange/Blue line. Then the line would be inserted into the utility tunnels, chases, ducts or storm mains of the Metro. The residual pipeline would continue through this system to a point near the Anacostia station, at which point it would be routed alongside the Anacostia Freeway to Blue Plains.

This option achieves many of the goals stated in Option A, but mechanically achieves piping the residuals along a different route. Metro is reportedly strapped for cash, and might consider this option. This option should be further studied. We note that there are several possible variations within the proposed routing that should be considered in parallel with the proposal.

3. Option C: Locate an abandoned sewer main and either reline it for use as a dedicated pipeline for part of the route to Blue Plains or to the WSSC plant along River Road, or use the abandoned main as a void into which a dedicated line could be inserted.

One such abandoned line reportedly parallels the Potomac Interceptor from Potomac into the District. This line was identified in the late 1970s to members of the Montgomery County Executive's citizen advisory panel on the planned Rock Run Advanced Treatment Plant. That plant was to have been constructed in the Avenal Country Club area. In the course of studying options, consultants mentioned the older, abandoned sewer line, and it was briefly considered for use in carrying treated water from the proposed plant to a point below Chain Bridge to avoid the Army Corps intake in that section of the river. The Rock Run plan was dropped after about 2 years of planning. The abandoned line might be used to carry a residual pipeline to the WSSC plant along River Road, avoiding excavation in the NPS C&O Canal property.

29-5-DA

4. Option D: Consider different sites for the thickening and/or thickening/dewatering facility on the existing grounds.

In the existing plans, dozens of residential homes are well within 1200' of the plant. Yet several different locations exist for the proposed facility which would mitigate the number of homes within close proximity the new facility. (See attached drawings). The following table shows the advantages of each drawing. These site alternatives must be evaluated in the case a new facility needs to be built. Additionally, as part of the existing plans, barriers and blockades must be included in all future plans as ways to lessen the pollutants (noise, smell, sight, dust, etc). These remedies are not ideal, but should have been included in the Engineering Feasibility Study and must be included in the Statement of Scope, the draft EIS and the final EIS.

Drawing A – Carderock	Drawing B – Georgetown Reservoir	Drawing C1 – Dalecarlia	Drawing C2 – Dalecarlia
<ul style="list-style-type: none"> <li>- Existing secure campus</li> <li>- Construction on undisturbed site</li> <li>- No elaborate or costly foundation system</li> <li>- Direct access to beltway</li> <li>- No proximity to residential areas</li> </ul>	<ul style="list-style-type: none"> <li>- Existing secure federal campus</li> <li>- Adjacent to controlled intersection</li> <li>- Possible direct access to parkway</li> <li>- No proximity to residential areas</li> </ul>	<ul style="list-style-type: none"> <li>- Existing secure usage campus</li> <li>- Repurpose unused west filter building</li> <li>- Dewatering building on undisturbed site</li> <li>- No elaborate or costly foundation system</li> <li>- Limited proximity to residential areas</li> </ul>	<ul style="list-style-type: none"> <li>- Existing secure usage campus</li> <li>- Dewatering and thickening tanks built above modified sedimentation basins</li> <li>- Limited proximity to residential areas</li> </ul>

29-6-BB

**Comments on General Assumptions**

29-7-DA	1. Please provide evidence that a more environmentally friendly flocculent does not exist, and that deflocculation is not feasible.
29-8-CA	2. Please indicate how the Corps plans to ensure that there are no munitions on the proposed monofill and thickening/dewatering plant sites, given the recent discovery of munitions in the Spring Valley and Westmoreland vicinity. The Summary of Statement specifically limits the Corps to relying "on findings of existing investigations". There are no current or planned investigations in these areas. We consider this to be a top-priority safety issue.
29-9-BB	3. Please provide complete information on how the selection was made of the site for the proposed thickening and dewatering facility, or provide a copy of the actual study (studies) that was used to make the decision. Pages 4-6 says that site was "identified in previous work".
29-10-FD	4. Please provide explanation for why a 20 year time frame was chosen as acceptable for the life of the landfill. This seems unreasonably short; for example, just the construction of the project represents 15% of the total length of the project. This is not an acceptable investment metric and biases the cost estimates.
29-11-BA	5. The size of the thickening and de-watering facility for alternatives requiring this process is discrepant. In the narrative part of the Engineering Feasibility Report it is described as 128' long, 76' wide and "three stories" high. The elevations and equipment specifications show that the building will be 235' long, 250' wide and 80' high. Please resolve this discrepancy so stakeholders will have accurate information.

**Comments on Alternatives**

29-12-GA	1. Many of the alternatives require some sort of trucking of thickened, dewatered sludge through residential neighborhoods, both DC and MD. Trucking raises many environmental concerns such as air quality, noise, traffic congestion and traffic safety and effect on ozone emissions. Each of these concerns should be addressed separately as part of evaluating any alternative requiring trucking. The planned studies regarding these concerns, if they exist at all, are wholly inadequate. Please provide a detailed plan of how these concerns will be studied.
29-13-GG	2. The manufacturing and trucking of dewatered, "aluminized" sludge may produce dust that could be harmful to children, the elderly and perhaps even healthy people. This is of particular concern because of the close proximity of these activities to residential neighborhoods —Brookmont, Dalecarlia and Sibley Hospital to name a few. Please provide evidence that this "aluminized" dust, which we know is harmful to fish, is not harmful to mankind. We note that in two Corps-favored alternatives, this material is to be trucked past a hospital, a long-term care facility, and through residential neighborhoods.
29-14-GA	3. In alternatives requiring trucking sludge, the estimates of the number of truck trips was downplayed by not taking into account days of increased turbidity, which can increase suspended particulate matter substantially. This will increase the number of truck trips/day. On the other hand, days-of-high-turbidity was used as an eliminating factor for Alternative 4 because Blue Plains could not handle the combined storm sewer overflow plus the residuals from Dalecarlia. Please explain this bias and re-present trucking



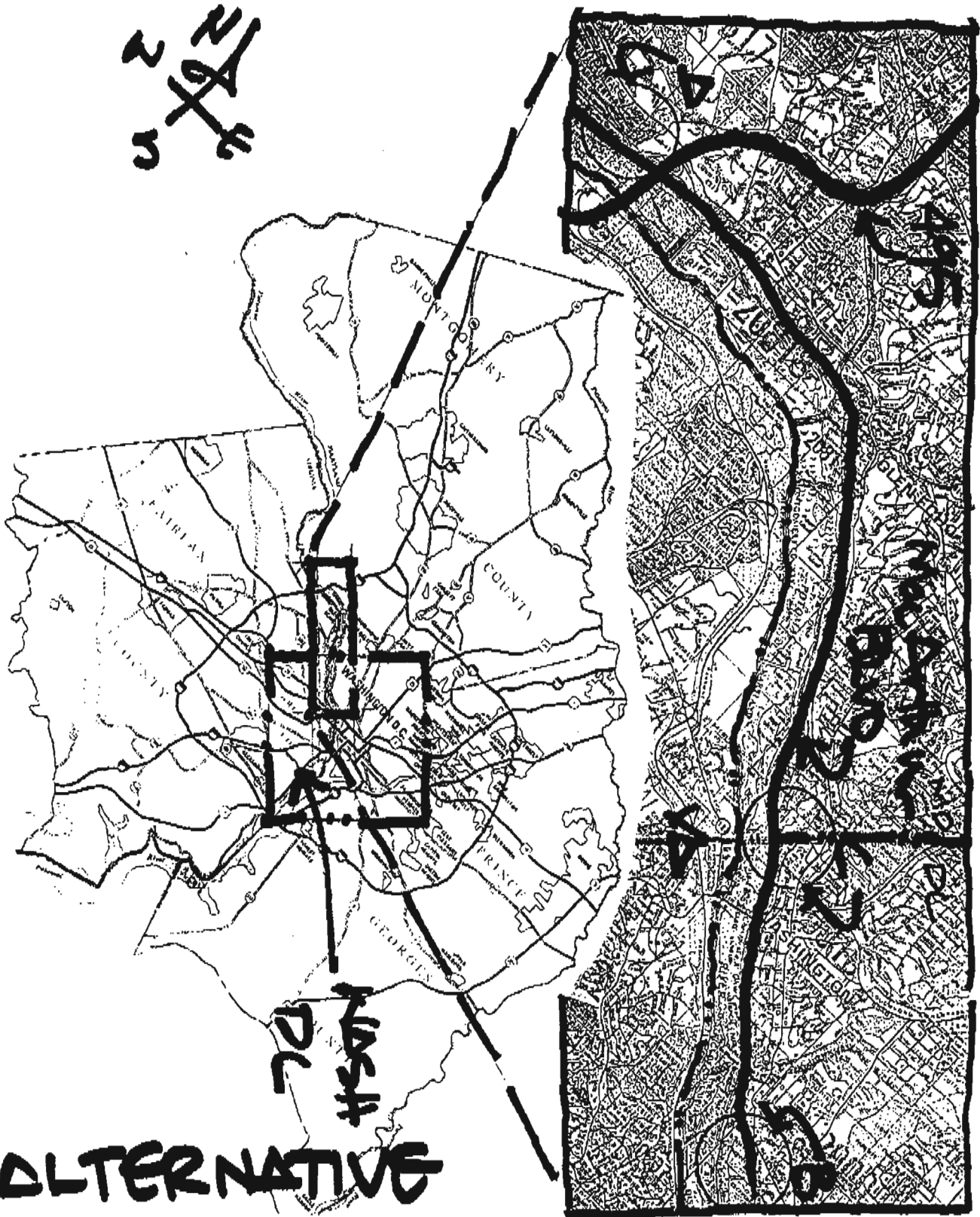
alternatives/cost calculations taking into account the higher number of truck-trips/day on days of high turbidity.

29-15-CA	4. Construction of both the landfill and new dewatering facility will be highly disruptive and have strong negative environmental consequences. Please provide an analysis of the impact that this construction will have on the surrounding environment, including air (dust, noise, ozone, particulates), water (runoff, contaminants), flora and fauna. Also establish
29-16-BC	scientifically whether or not there are endangered plants or animals that will be threatened (or any other pertinent impact).
29-17-DD	5. Alternative 7 – Piping thickened residuals to WSSC or Corballis. Please provide complete justification as to why this alternative was rejected, as it is clearly similar to Alternative #5; distances are comparable and obtaining permits would more than likely be less challenging.
29-18-CA	6. Alternative 4 was discarded based on DC regulation that prohibits “sludges or other materials from sewage or industrial waste treatment plants or from water treatment plants” from being discharged to the District of Columbia sewer system. Yet, Alternative 2 was not discarded, despite existing DC regulations that prohibit the building and maintaining of a landfill on the District. This sheds some doubt on the integrity of the assessment and leads the reader to believe the whole report is biased. Please explain this bias.

#### Comments on Cost Analysis

29-19-AB	1. In Table 5-2, the trucking costs for Alternatives 5 and 25 are exactly the same, yet clearly alternative 25 is much more expensive in terms of trucking costs. Please explain this discrepancy.
29-20-AB	2. In Alternative 2, there are no costs associated with trucking the residuals to the monofill. This is not credible. Please explain.
29-21-IA	3. As trucking costs are operational and piping costs are mostly construction costs, any cost analysis will favor trucking options over piping options.
29-22-AB	4. No costs associated with road deterioration and environmental impacts were included with any alternative.

2  
2  
3  
4



# ALTERNATIVE

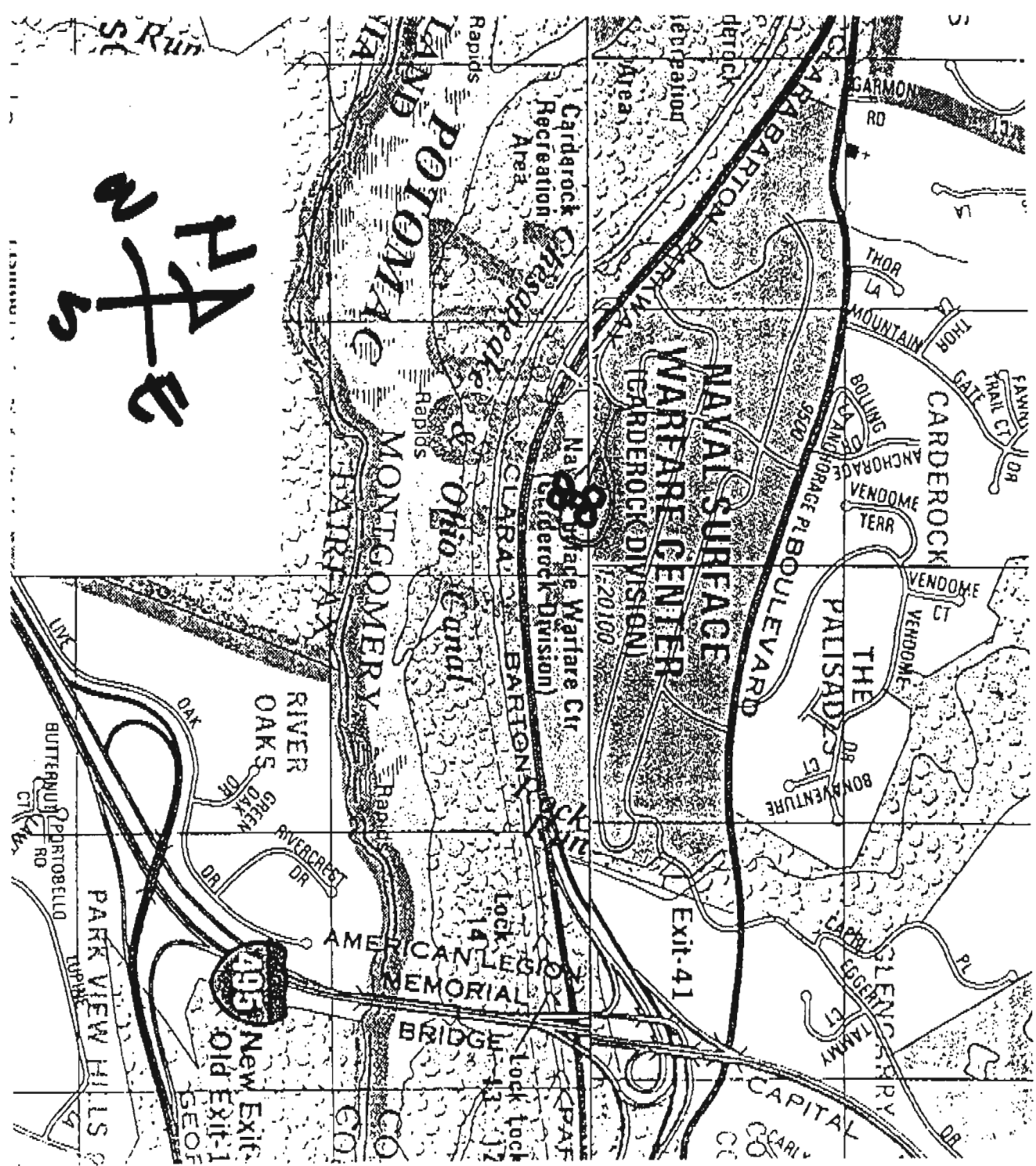
# SITE LOCATIONS

WASHINGTON DC METRO AREA WITH DETAIL OF POTOMAC CORRIDOR FROM GEORGETOWN TO THE BELTWAY

WASHINGTON AQUEDUCT BALTIMORE DISTRICT USACE

BROOKMONT CIVIC LEAGUE - ALTERNATE SITE PROPOSAL

13 NOVEMBER 2004



# CARDEROCK

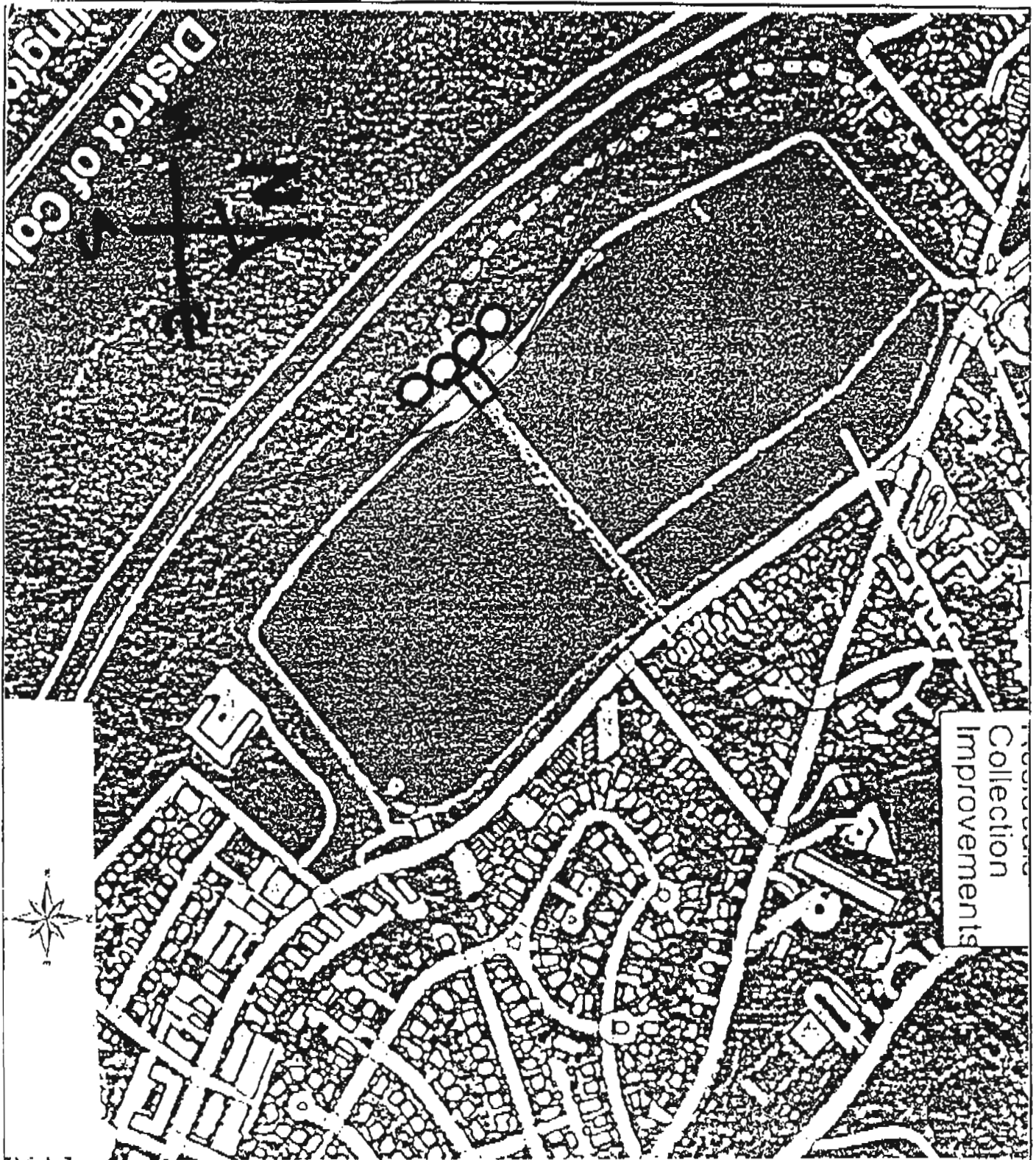
- EXISTING SECURE FEDERAL CAMPUS
- ADJACENT TO EXISTING CONTROLLED INTERSECTION
- CONSTRUCTION ON UNDISTURBED SITE
- NO ELABORATE/ COSTLY FOUNDATION SYSTEM
- DIRECT ACCESS TO THE BELTWAY



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BROOKMONT CIVIC LEAGUE - ALTERNATE SITE PROPOSAL

13 NOVEMBER 2004



# GEORGETOWN RESERVIOR

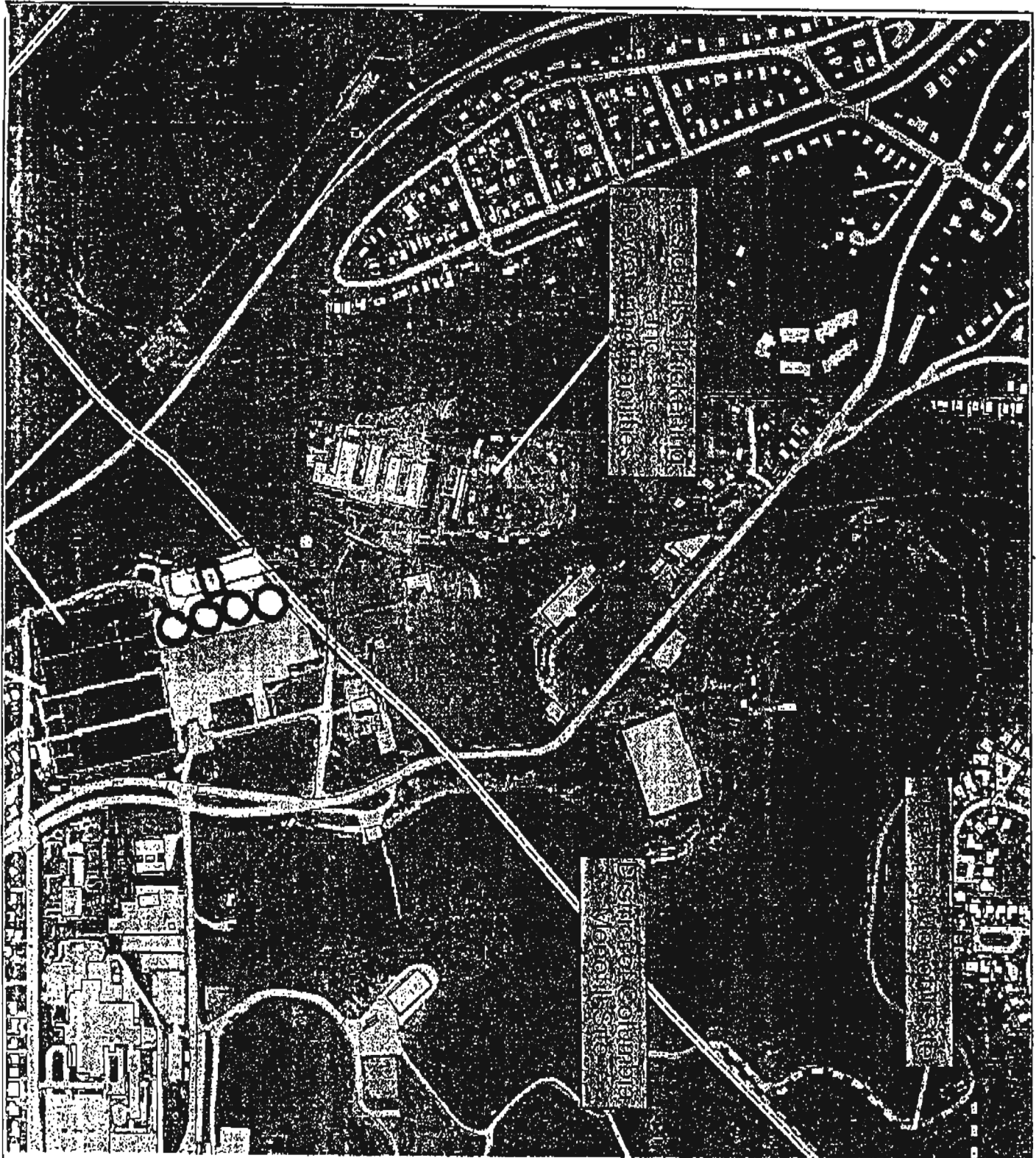
EXISTING SECURE FEDERAL CAMPUS  
 ADJACENT TO CONTROLLED INTERSECTION  
 POSSIBLE DIRECT ACCESS TO PARKWAY

B

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# DALECARLIA I

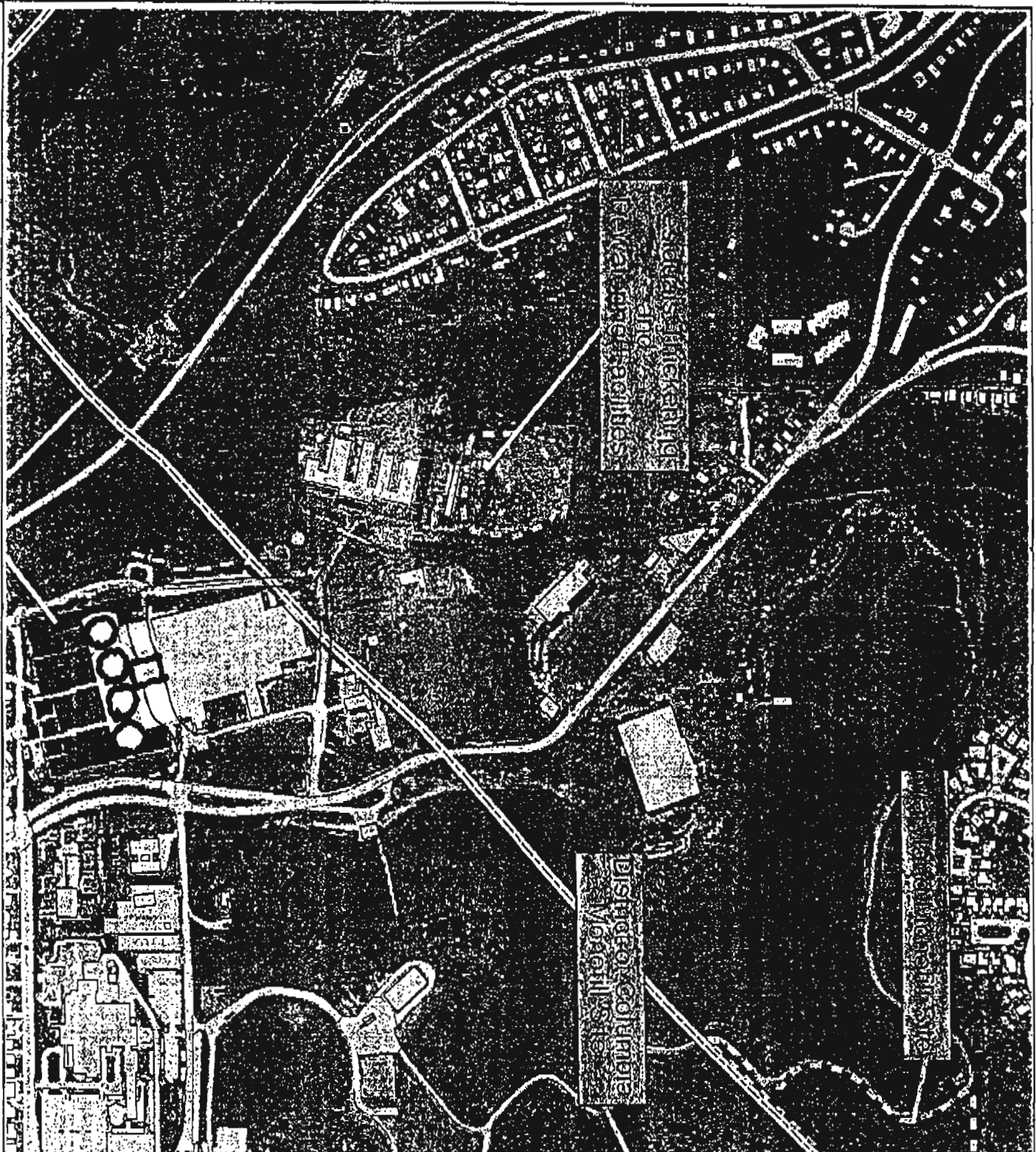
EXISTING SECURE USAGE CAMPUS  
REPURPOSE UNUSED WEST FILTER BUILDING  
DEWATERING BUILDING ON UNDESTRUCTURED SITE  
NO ELABORATE/ COSTLY FOUNDATION SYSTEM

CI

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# DALECARLIA 2

EXISTING SECURE USAGE CAMPUS

DEWATERING BUILDING - THICKENING TANKS  
ABOVE MODIFIED SEDIMENTATION BASINS

# C2

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BROOKMONT CIVIC LEAGUE - ALTERNATE SITE PROPOSAL

13 NOVEMBER 2004