

PD 819-06 Port Deposit - Bainbridge
Cond. Approval WTP

MSA.S. 1829-5904

Approved
5/15/08 KS

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor



Margaret G. McHale
Chair

Ren Serey
Executive Director

**STATE OF MARYLAND
CRITICAL AREA COMMISSION
CHESAPEAKE AND ATLANTIC COASTAL BAYS**

1804 West Street, Suite 100, Annapolis, Maryland 21401
(410) 260-3460 Fax: (410) 974-5338
www.dnr.state.md.us/criticalarea/

May 15, 2008

Mr. Jim Dieter
Daft, McCune, Walker, Inc.
200 East Pennsylvania Ave
Towson, MD 21286

The Honorable Kerry Anne Abrams, Mayor
Town of Port Deposit
64 North Main Street
Port Deposit, MD 21904

Re: Port Deposit Waste Water Treatment Plant
Critical Area Commission Conditional Approval

Dear Mr. Dieter and Mayor Abrams:

The purpose of this letter is to officially notify you of the Critical Area Commission's action on the above referenced project. On May 7, 2008, the Critical Area Commission unanimously approved the Port Deposit Water and Sewer Authority's proposal and site plan to construct a new waste water treatment plan in the Town of Port Deposit, Maryland. This approval included the following conditions:

1. The Port Deposit Water & Sewer Authority (PDWSA) and the Town of Port Deposit will submit a revised planting plan to meet the Buffer mitigation requirements of 43,710 square feet and corresponding implementation schedule to the Project Subcommittee for review and approval at the August 6, 2008 Critical Area Commission meeting. If the plan or schedule is deemed unacceptable due to timing or content, the Commission may require the Town and the PDWSA to submit an acceptable alternative plan within 60 days.
2. The PDWSA and the Town of Port Deposit will submit a mitigation plan for the 13,580 square feet of FIDS mitigation by the July 2, 2008 Commission meeting for review and approval by the Project Subcommittee.



3. In order for the Town of Port Deposit to accept payment of fee-in-lieu by the PDWSA for all required mitigation, the Town must establish a separate account and provide an update regarding payment from that account to Commission staff in the required quarterly report.
4. Any proposed changes to the WWTP site plan must be submitted to Commission staff and may require approval by the Critical Area Commission.
5. After demolition of the existing WWTP, the 0.3 acre site shall remain undeveloped. No structures or impervious areas are permitted in this area since the removal of impervious surface satisfies the Critical Area pollutant removal requirement.

As described within the conditions above, the approval was based on a mitigation package totaling 57,290 square feet. Once an acceptable mitigation package has been officially approved by the Critical Area Commission, staff will require a Planting Agreement form to be signed by the Town of Port Deposit.

Please note that should any changes to the site plan be proposed in the future, additional review and approval by the full Commission will be required. Should you have any questions, please feel free to contact me at 410-260-3475.

Sincerely,



Kate Schmidt
Natural Resources Planner

PD819-06

Cc: Mary Ann Skilling, Maryland Department of Planning

Martin O'Malley
Governor
Anthony G. Brown
Lt. Governor



Margaret G. McHale
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April 3, 2008

Ms. Mary Ann Skilling
Maryland Department of Planning
210 Inverness Drive
Church Hill, Maryland 21623

**RE: Bainbridge Wastewater Treatment Plant & Route 222 Sewer Interceptor
Port Deposit**

Dear Ms. Skilling:

Thank you for submitting updated information regarding the above referenced project. At our meeting of March 25, 2008 we discussed this project with the applicant, Port Deposit Water & Sewer Authority and requirements for approval by the Critical Area Commission. Based on that meeting and subsequent review of material, I would like to offer the following comments:

1. This project requires approval by the Commission under COMAR 27.02.04 'State or Local Agency Actions Resulting in Major Development on Private Lands or Lands Owned by Local Jurisdictions', which defines wastewater treatment plants as major development. Per the requirements of COMAR 27.02.04, the agency or private sponsor must submit the following information to the Commission:
 - (a) Findings, supported by adequate documentation, showing the extent to which the project or development is consistent with the provisions and requirements of the Critical Area Program of the local jurisdiction within which it is located; and
 - (b) An evaluation of the effects of the project on the Critical Area Program of the local jurisdiction, or jurisdictions, within which it is located, including any effects on the jurisdiction's growth allocation as described in COMAR 27.01.02.06.
2. Given a portion of this project will impact the 110-foot Buffer, the project will also require Conditional Approval by the Critical Area Commission. I have received from the applicant findings in response to COMAR 27.02.06.01.B and 27.02.06.01.C to address this requirement.
3. Lastly, per COMAR 27.02.04 the Commission is required to seek comments on the proposed development from the affected local jurisdictions and from the general public. This office will publish an ad in the Cecil Whig seeking comments from the general

Ms. Mary Ann Skilling
Port Deposit Waste Water Treatment Plant
April 3, 2008
Page 2 of 2

public until May 2, 2008. Please provide any comments regarding this project from the Town of Port Deposit and Cecil County.

4. The area of disturbance to the 110-foot Buffer is 12,320 square feet. This area must be mitigated at a ratio of 3:1. Mitigation should be provided within the 110-foot Buffer and consist of a mix of native shrubs and trees. If the entire mitigation requirement can not be accommodated in the Buffer, a minimum of 1:1 or 12,320 square feet of mitigation must occur in the Buffer.
5. The Department of Natural Resources Wildlife and Heritage Division determined that the forest area adjacent to the proposed project area is Forest Interior Dwelling Species (FIDS) habitat. We established that only edge FIDS habitat will be disturbed. As a result 1:1 mitigation for the impact to the FIDS or 13,580 square feet must be provided. Mitigation for impacts to FIDS must occur adjacent to existing FIDS habitat per the guidelines contained in the Commission's 2000 FIDS Guidance document.
6. The Project Subcommittee recently established new guidelines for approval of projects that require mitigation plantings. All projects that require more than 5,000 square feet of mitigation must have a planting plan reviewed by staff prior to scheduling before the Commission. A planting plan that demonstrates the required FIDS mitigation and the required Buffer mitigation should be submitted to this office.
7. The applicant should submit a copy of the MPDES permit for our records.

The next Commission meeting is scheduled for May 7, 2008. In order to schedule this item for the May agenda, please provide the information described above by April 16, 2008. Should you have any questions regarding the above comments please do not hesitate to contact me at 410-260-3475.

Sincerely,



Kate Schmidt
Natural Resources Planner
PD819-06

Cc: Mr. Jim Dieter, GMB
Mr. Roger Greve, GMB
Ms. Sharon Weygand, Port Deposit Town Administrator



STATE OF MARYLAND
CRITICAL AREA COMMISSION
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January 25, 2007

Ms. Mary Ann Skilling
Maryland Department of Planning
210 Inverness Drive
Church Hill, Maryland 21623

**RE: Bainbridge Wastewater Treatment Plant & Route 222 Sewer Interceptor
Port Deposit**

Dear Ms. Skilling:

This letter is to update my previous communication on January 23, 2007, to you regarding the proposed Route 222 sewer line and interceptor in the Town of Port Deposit. Based on this information, it now appears a portion of the planned sewer upgrade will need to be processed by the Critical Area Commission as a 'Conditional Approval' under COMAR 27.02.06. The need for the Conditional Approval is because a portion of the proposed work will occur in the 100-foot Buffer of an identified tributary stream. Impacts within the 100-foot Buffer should be mitigated at a 3:1 ratio. Therefore, the applicant will need to provide sufficient information to determine the amount of proposed impacts within the 100-foot Buffer and a proposed mitigation planting plan. Mitigation should consist of plantings of native shrubs and trees. At least 1:1 of those impacts should occur within a 100-foot Buffer. This information will need to be submitted to the Critical Area Commission, in addition to the outstanding items mentioned in my previous letter.

In order for the Critical Area Commission to process this request as a conditional approval the following information will be required from the applicant:

In order to qualify for consideration by the Commission for conditional approval, it shall be shown by the proposing or sponsoring agency that the project or program has the following characteristics:

B.(1) That there exist special features of the site or there are other special circumstances such that the literal enforcement of these regulations would prevent a project or program from being implemented;

B.(2) That the project or program otherwise provides substantial public benefits to the Chesapeake Bay Critical Area Program;

B.(3) That the project or program is otherwise in conformance with this subtitle;

The conditional approval request shall, at a minimum, contain the following:

C.(1) A showing that the literal enforcement of the provisions of this subtitle would prevent the conduct of an authorized State of local agency program or project;

C.(2) A proposed process by which the program or project could be so conducted as to conform, insofar as possible, with the approved local Critical Area program or if the development is to occur on State-owned lands, with the criteria set forth in COMAR 27.02.05;

C.(3) Measures proposed to mitigate adverse effects of the project or program or an approved local Critical Area program or, if on State-owned lands, on the criteria set forth in COMAR 27.02.05.

Once this information is received and constitutes a complete packet, the project will be scheduled before the Critical Area Commission. Should you have any questions regarding the above comments please do not hesitate to contact me at 410-260-3475.

Sincerely,



Kate Schmidt
Natural Resource Planner

PD819-06

Cc: Mr. Jim Dieter, GMB
Mr. Roger Greve, GMB
Sharon Weygand, Port Deposit Town Administrator



**STATE OF MARYLAND
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January 23, 2007

Ms. Mary Ann Skilling
Maryland Department of Planning
210 Inverness Drive
Church Hill, Maryland 21623

**RE: Bainbridge Wastewater Treatment Plant & Route 222 Sewer Interceptor
Port Deposit**

Dear Ms. Skilling:

This letter is to confirm information received in this office regarding the proposed construction of the above referenced project. The Port Deposit Water Management Authority is proposing a two phase project to upgrade the waste water treatment plant services for the Town of Port Deposit. The first phase of the upgrade is to construct a replacement sewer interceptor within Route 222 to connect to the existing plant. The second phase involves constructing an entirely new plant and the removal of the existing plant. Below are my comments regarding the information received to date.

Phase I – Route 222 Interceptor

- The project is located entirely within the right-of-way for State Highway Route 222. Therefore, this portion of the project must obtain approval from the Critical Area Commission under COMAR 27.02.05, State Agency Actions Resulting in Development on State-Owned Lands.
- As you are aware for state projects, the applicant must have received all applicable State and Federal permits; including an SHA Utility Access permit and Sediment & Erosion Control permit. At this point in time, we are still awaiting notice of the status of these permits.
- The proposed project area is considered an “area of intense development” and must meet all the criteria for such development under COMAR 27.02.05.03, including any provisions for Habitat Protection Areas. We are awaiting determination of whether the waterway adjacent to Route 222 is a ditch or could be classified as a tributary stream under the Town Zoning Code for Critical Areas, which is a “perennial or intermittent stream”. If a tributary stream or any other Habitat Protection Area is present, the application will need to be processed as a Conditional Approval by the Commission under COMAR 27.02.06.

Phase II – Waste Water Treatment Plant Construction

- The applicant for this portion of the project is the Port Deposit Water Authority and the project will occur on land owned by this authority. Therefore, the project must obtain approval from the Critical area Commission under COMAR 27.02.04, State or Local Agency Action Resulting in Major Development on Private Lands or Lands owned by Local Jurisdictions.
- The proposed location for the new waste water treatment plant is within the Intense Development Area (IDA) of the Town of Port Deposit.
- In order for the Commission to review the proposed project, the applicant should have obtained all applicable State and Federal permits.
- As a project within the IDA, the applicant will need to meet the 10% pollutant reduction rule requirements. To the extent possible, treatment of the stormwater should be achieved on site. The Critical Area Commission may consider offsets, however the applicant should demonstrate that on site options were utilized first.
- The applicant will also need to meet any other provisions for Habitat Protection Areas, including mitigation for impacts to Forest Interior Dwelling Bird (FIDS) habitat. At this point in time, it appears they are providing 1:1 mitigation for these impacts as required.

To summarize, it appears that each phase of the proposed project will require approval by the Critical Area Commission. The applicant has indicated that they will be ready to bring the Route 222 Interceptor project forward first. In order to finalize this process, this office is awaiting notification regarding status of permits. Additionally, we are discussing whether the adjacent waterway is a stream and will make a decision once we have evaluated the available information.

Regarding Phase II of the proposed project, the applicant has begun to design the site to meet stormwater requirements. At this point in time, we do not have sufficient information to evaluate the proposed option to meet the 10% pollutant reduction rule given the lack of stormwater design. Once this information is complete, we expect the applicant will forward this information to us for review. Additionally, the applicant must still obtain the above permits.

Thank you for involving the Critical Area Commission early in the approval process. Should you have any questions regarding the above comments please do not hesitate to contact me at 410-260-3475.

Sincerely,



Kate Schmidt
Natural Resource Planner

PD819-06

Cc: Mr. Jim Dieter, GMB
Mr. Roger Greve, GMB
Sharon Weygand, Port Deposit Town Administrator

**CRITICAL AREA COMMISSION
CHESAPEAKE AND ATLANTIC COASTAL BAYS
1804 West Street, Suite 100
Annapolis, Maryland 21401**

MEMORANDUM

To: Project Subcommittee
From: Mary Ann Skilling
Date: January 3, 2007
Subject: Town of Port Deposit Waste Water Treatment Plant

The Town of Port Deposit in conjunction with the Port Deposit Water and Sewer Authority is currently in the process of planning upgrades to its existing wastewater treatment system, including the construction of a new wastewater treatment plant, in order to accommodate future growth. The existing plant has experienced problems due to its location directly on the waterfront and is insufficient to address future growth planned for the former Naval Training Center at Bainbridge. The proposed project will include phased construction of a new treatment plant at the Logan Wharf Property, which is located further away from the Susquehanna River than the existing facility.

Phase I of the project will consist of interim improvements to the Town's sewer infrastructure system to accommodate initial flows from Bainbridge. Phase II of the project will consist of constructing a 1.0 MGD Enhanced Nitrogen Removal (ENR) facility. The new facility will conform to the Upper Western Shore Tributary Strategy pollutant load allocation in agreement with the Chesapeake Bay Program goals. The new Port Deposit/Bainbridge plant will be phased to coincide with the build out at Bainbridge.

Phase I and Phase II will both occur within Town of Port Deposit limits and within the Intensely Developed Area (IDA) designation of the Critical Area. The infrastructure improvements are proposed to occur in the right-of-way of Route 222 and connect to a pump station at the existing plant. There appear to be no impacts proposed to the 100-foot Buffer at this time. The proposed location for the new plant will be on the landward side of the railroad adjacent to the cliff. The Port Deposit Water and Sewer Authority is in the process of negotiating the purchase of additional property from the railroad which fronts the proposed parcel in order to provide more room for the treatment plant and minimize disturbances to steep slopes and forested areas. The new plant location is still outside of the 100-foot Buffer.

Representatives from the Water and Sewer Authority, George Perdikakis and J. James Dieter will be attending the January 3rd Project Subcommittee meeting to provide information on the status of the new facility.

Critical Area Commission

STAFF REPORT

May 7, 2008

APPLICANT: Port Deposit Water & Sewer Authority

PROPOSAL: Port Deposit Wastewater Treatment Plant Replacement

JURISDICTION: Town of Port Deposit

COMMISSION ACTION: VOTE

STAFF RECOMMENDATION: Approval

STAFF: Kate Schmidt

**APPLICABLE LAW/
REGULATIONS:** COMAR 27.02.04 State or Local Agency Actions
Resulting in Major Development on Private Lands or Lands
Owned by Local Jurisdictions
COMAR 27.02.06 Conditional Approval of State or Local
Agency Programs in the Critical Area

DISCUSSION:

The Town of Port Deposit Water and Sewer Authority (PDWSA), a public-private partnership, is seeking Conditional Approval to construct a new Wastewater Treatment Plant (WWTP) to replace an existing plant that has reached its life expectancy. The construction of a wastewater treatment plant qualifies as "major development" under COMAR 27.02.04 and requires approval by the Commission. Additionally, the proposed location of the new WWTP will impact the Town's required 110-foot Buffer to an adjacent tributary stream. Therefore, this proposal also requires Conditional Approval under COMAR 27.02.06.

The existing facility for the Town of Port Deposit treats approximately 135,000 gallons per day and may treat up to 150,000 gallons per day. It is located on the banks of the Susquehanna River within the 110-foot Buffer and within the floodplain. The Town of Port Deposit recently annexed 1,200 acres of the old Bainbridge Naval Training Center into its boundaries with the knowledge that this site will be developed with a large mixed use community that will require significantly more sewer capacity. In order to accommodate this future growth, and provide a less hazardous location than the existing WWTP, the PDWSA proposes to construct the new facility outside the floodplain and outside the Town's 110-foot Buffer to the Susquehanna River.

Site Design

The new WWTP is proposed to treat up to 700,000 gallons per day, with the potential to increase treatment to 1,000,000 gallons per day if necessary in the future. It will be designed to treat

effluent in accordance with Enhanced Nutrient Removal (ENR) standards of 3mg/L for total Nitrogen. Currently the old plant discharges at 18 mg/L, therefore no offsets will be needed to treat the additional wastewater and still meet the State's Total Maximum Daily Load (TMDL) goals. The Maryland Environmental Service (MES) is operating the existing facilities and will be overseeing operation and maintenance of the expanded and upgraded system.

The proposed location for this facility is a 2.7 acre site located just off of Route 222 behind the railroad right-of-way. It is designated as Intensely Developed Area (IDA) and currently developed with a small abandoned structure. The remainder of the property is a mix of lawn area and forest edge that connects to the wooded hillside behind. Adjacent to Route 222 and this property is a tributary stream that has been piped in many places, but is classified as an intermittent stream. Therefore, a 110-foot Buffer is required per the Town of Port Deposit Critical Area Program.

10% Compliance

The PDWSA must meet the 10% pollutant reduction rule since the site is designated as IDA. The removal requirement is 1.50 lbs of phosphorus per year which the applicant proposes to achieve by treating all rooftop runoff through the WWTP itself, installing infiltration BMPs around the perimeter of parking areas, and by removing the existing impervious surface at the old wastewater treatment plant as an offset.

110-foot Buffer

There is a 110-foot Buffer to a tributary stream located on the Route 222 side of the project area. The area of disturbance within the Buffer is 12,320 square feet which must be mitigated at a ratio of 3:1.

Forest Interior Dwelling Species (FIDS)

The forested cliff on the backside of this parcel was identified by DNR Wildlife and Heritage as potential FIDS habitat, of which approximately 1.1 acres fall on this site. The site design reduces clearing to the maximum extent possible by pushing the development towards the railroad right-of-way. Clearing will be limited to within 15 feet of the forest edge and total 13,580 square feet. Per the Critical Area Commission FIDS Guidance document, 1:1 mitigation for impact to edge FIDS habitat is required. There are no other Habitat Protection Areas on this project site.

Other Permits and Reviews

Maryland Department of the Environment (MDE) issued a State Discharge/NPDES permit for the 700,000 gallons per day discharge effective April 1, 2008 until March 31, 2013. The MDE Construction Permit was also issued on April 1, 2008. The State Highway Administration approved access onto Route 222 on March 3, 2008. The Cecil Soil Conservation District has approved the sediment and erosion control plans for the construction of the new facility and the Cecil County Department of Public Works is reviewing the final revisions to the stormwater management plans. Lastly, the Cecil County Technical Advisory Committee has reviewed this project to provide review and comment of the proposal through its design stage. Those comments have been incorporated into the project.

Route 222 Sewer Line Interceptor

On June 6, 2007 the Commission approved the installation of a replacement sewer line interceptor down the right-of-way of Route 222. As a condition of that approval, the PDWSA was required to provide 6,750 square feet of mitigation for clearing vegetation within the 110-foot Buffer to the tributary stream. This mitigation will be rolled into the entire mitigation package proposed for this project.

In order to qualify for consideration by the Commission for conditional approval, it shall be shown by the proposing or sponsoring agency that the project has the following characteristics:

The following are the responses of the applicant:

B.(1) That there exist special features of a site or there are other special circumstances such that the literal enforcement of these regulations would prevent a project or program from being implemented;

The proposed site for the new Wastewater Treatment Plan (WWTP) to be constructed for is a 2.7-acre site severely constrained by steep forested slopes (1.1 acres) on the north. The entire remaining area must be developed to accommodate the Enhanced Nutrient Removal (ENR) processes designed for this plant and required by the Maryland Department of Environment to control nutrients to the Susquehanna River and the Chesapeake Bay. Without the incursion into the 110 foot buffer for a small stream which runs in the west side of Rt. 222, the plant could not be built. Efforts have been made to minimize tree clearing and reduce intrusion into the steep forested slopes.

B.(2) That the project otherwise provides substantial public benefits to the Critical Area Program;

The new plant will replace an existing plant located within the floodplain of the Susquehanna River. The potential for severe impacts to the water quality of the river in the event of plant failure or flooding will be eliminated. The new plant has been designed with state-of-the-art technology to meet Bay Program/Tributary Strategy Nutrient Cap limits and will assist with reduction of nutrient loadings to the Chesapeake Bay.

B.(3) That the project is otherwise in conformance with this subtitle;

The project is in compliance with all other requirements of this subtitle.

The conditional approval request shall, at a minimum, contain the following:

C. (1) A showing that the literal enforcement of the provisions of this subtitle would prevent the conduct of an authorized local agency program or project;

The small size of the site does not allow alternative siting for construction of the WWTP. Buffer impacts and tree clearing have been minimized, but unless permitted, the plant could not be constructed. The design and sizing of this plant is mandated by the Federal and State - National Pollutant System Discharge Permit and the Maryland Department of Environment Construction

Permit. A literal enforcement of this subtitle would prohibit the construction of the ENR plant necessary to meet State discharge permit effluent limits.

C. (2) A proposed process by which the project could be so conducted as to conform, insofar as possible, with the approved local Critical Area program;

The project will meet all requirements of the Town of Port Deposit Critical Area Program and will be in conformance with the Town fee-in-lieu program for the mitigation costs. The 10% Pollutant Restriction Reduction Rule for post construction conditions is met. Development of the site will require clearing of approximately 13,580 square feet of forest clearing and 12,320 square feet of stream buffer impacts. Mitigation requirements will be added to a collateral project - Rt. 222 Interceptor previously approved by the Commission.

The existing WWTP, which will be demolished, sits on 16,800 square feet of impervious in the 100 year floodplain between the railroad tracks and the river. This site will be restored and planted to a natural condition and returned to the Town's Marina Park.

C. (3) Measures proposed to mitigate adverse effects of the project.

Mitigation will be provided for the impacts to the 110-foot Buffer from the replacement of the interceptor line along Route 222 and the construction of the wastewater treatment plant at a ratio of 3:1 totaling 43,710 square feet. An additional 13,580 square feet of FIDS mitigation will also be provided. Lastly, the project is removing 1.61 lbs of phosphorous per year to meet the 1.50 lbs/year pollutant reduction requirement.

The Commission shall approve, deny, or request modifications to the request for conditional approval based on the following factors:

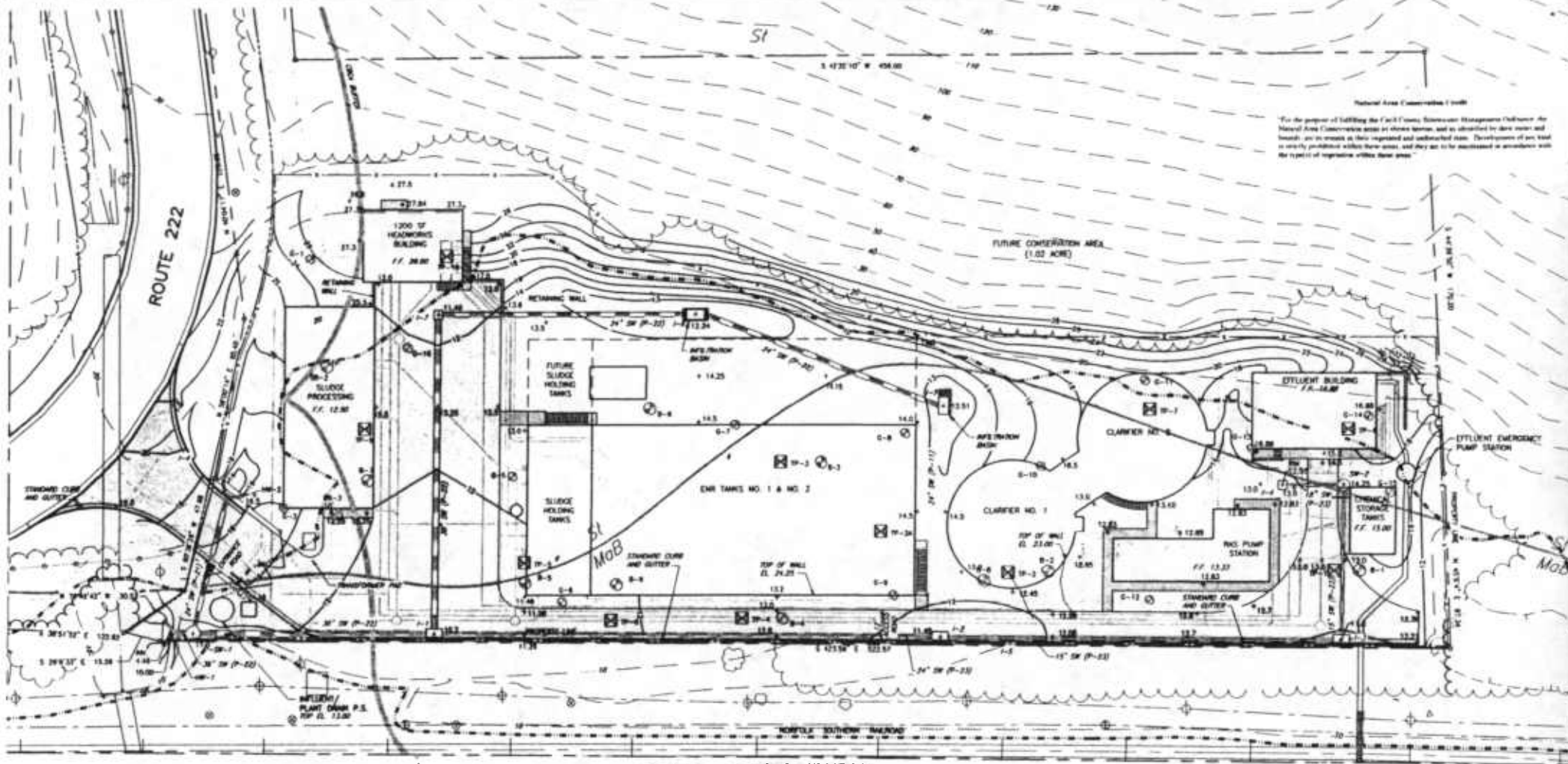
E.(1) The extent to which the project or program is in compliance with the requirements of the relevant chapters of this subtitle;

E.(2) The adequacy of any mitigation measures proposed to address the requirements of this subtitle that cannot be met by the project or program; and

E.(3) The extent to which the project or program, including any mitigation measures, provides substantial public benefits to the overall Critical Area Program.

Staff Recommendation

Staff recommendation is for approval of this project.



For the purpose of defining the Civil County Stormwater Management Ordinance for the Port Deposit Wastewater Treatment Plant, the following information is provided. The information is provided as a guide only and is not intended to be used as a basis for any other purpose. The information is provided as a guide only and is not intended to be used as a basis for any other purpose.

MATCHLINE B-B FOR CONTINUATION SEE SHEET C10.5

LEGEND

- EXISTING GROUND
- PROPOSED GRADE
- PROPERTY LINE
- EXISTING TREELINE
- LIMIT OF CLEARING
- RIGHT-OF-WAY LINE
- 100 YEAR FLOOD PLAIN
- CREEK BUFFER
- PROPOSED STORM DRAIN
- SOILS BOUNDARY
- PROPOSED WWTW PIPING
- ⊙ SOIL BORING
- ⊙ TEST PIT
- ⊙ EXISTING UTILITY POLES

NOTES

1. CONTRACTOR TO PROVIDE ROCK OUTLET PROTECTION AT THE DISCHARGE POINT FOR THE DOWNSLOPE SYSTEM (LOCATION TO BE DETERMINED IN FIELD)
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT SEDIMENT DISCHARGE FROM THE DOWNSLOPE SYSTEM THROUGH THE USE OF SEDIMENT TRAPS, FILTERS, ETC.
3. CONTRACTOR TO SUBMIT DOWNSLOPE PLAN TO CECL COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
4. TRENCHING OPERATIONS SHALL INCLUDE STABILIZATION OF DISTURBED AREA AT THE END OF EACH DAY. NO OPEN TRENCHES SHALL BE PERMITTED OVERNIGHT.
5. 100-YR FLOOD ELEVATION = 104.5'

SOILS

TYPE
 MoB - MADE LAND (3% - 8% SLOPES)
 St - STONY LAND

HYDROLOGIC SOIL GROUP
 ASSUMED C
 B

STORMWATER PLAN
 SCALE: 1" = 40'



SEALING DRAWINGS REQUIRED FOR PRIVATE INFRASTRUCTURE

The contractor shall submit Manufacturer's Shop Drawings for all components of the project to the County Stormwater Management District, Storm Drain, Water, and Sewer Service System Division. The shop drawings must reflect information as follows: Job Name, Component Identification, Project Program of Record's review and approval, and quantity of materials specified in component identification. Provide design calculations for the component. The Department of Record Approval Drawings must be used in Civil County Department of Public Works, Stormwater Management Inspection Division, or local (10) for working drawings prior to the proposed order date of any component. Approved shop drawings must be received by the contractor prior to ordering of components.

NO.	DATE	REVISIONS
1	4/23/08	ADDITION OF INFILTRATION BASINS

**PORT DEPOSIT
 WASTEWATER TREATMENT PLANT
 FOR THE TOWN OF PORT DEPOSIT**

GMI
 GEORGE, MILES & BUI
 ARCHITECTS & ENG
 1000 N. ...
 www.gmi.com

PROPOSED SITE I

DESIGN	RAG
DRAWN	BML
CHECKED	JK
JOB	2003.120
DATE	JANUARY 2008



**PORT DEPOSIT
WATER & SEWER
AUTHORITY**

GEORGE PERDIKAKIS
RICHARD ALTER, ACTING CHAIRMAN
ROB FLAYHART, MEMBER
REV. BARRY GRAY, MEMBER
BRIAN LAFOND, MEMBER
KERRY ANNE ABRAMS, MEMBER

April 8, 2008

Ms. Katherine Schmidt
Natural Resources Planner
Chesapeake Bay Critical Areas Commission
Department of Natural Resources
1804 West Street, Suite 100
Annapolis, MD

Re: Port Deposit Water and Water Authority

Dear Ms. Schmidt: *Kade*

The Port Deposit Water and Sewer Authority requests approval of the new Wastewater Treatment Plant project. The project will be constructed on the property known as the Logan property within the Town limits of the Town of Port Deposit in Cecil County, Maryland. Construction will take place in the area designated for commercial/industrial development (IDA) in the Town's Critical Area Program. A Conditional Approval Request form is attached.

Thank you for all your assistance with finalizing this document. If additional information is necessary, please contact me at (410) 296-3333 or jdieter@dmw.com.

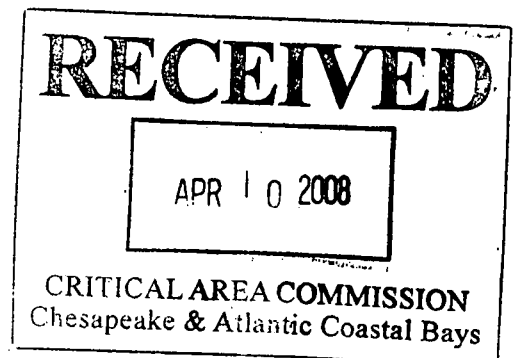
Sincerely,

J. James Dieter
J. James Dieter
Executive Director

JJD/bah

Enclosure

cc: Mr. Richard Alter, Board Chairman
Ms. Mary Anne Skilling, MD Department of Planning





**PORT DEPOSIT
WATER & SEWER
AUTHORITY**

GEORGE PERDIKAKIS
RICHARD ALTER, ACTING CHAIRMAN
ROB FLAYHART, MEMBER
REV. BARRY GRAY, MEMBER
BRIAN LAFOND, MEMBER
KERRY ANNE ABRAMS, MEMBER

**Conditional Approval Request Form Responses
Bainbridge Development
Project No. 07029**

B. (1-3) In order to qualify for consideration by the Commission for conditional approval, it shall be shown by the proposing or sponsoring agency that the project or program has the following characteristics:

(1) *That there are special features of a site or there are other special circumstances such that the literal enforcement of these regulations would prevent a project or program from being implemented;*

The proposed site for the new Wastewater Treatment Plan (WWTP) to be constructed for the Town of Port Deposit and The Bainbridge Development project is a 2.7-acre site severely constrained by steep forested slopes (1.1 acres) on the north. The entire area must be developed to accommodate the Enhanced Nutrient Removal (ENR) processes designed for this plant and required by the Maryland Department of Environment to control nutrients to the Susquehanna River and the Chesapeake Bay. Without the incursion into the 100 foot buffer for a small stream which runs in the west side of Rt. 222, the plant could not be built. Efforts have been made to minimize tree clearing and reduce intrusion into the steep forested slopes.

(2) *That the project or program otherwise provides substantial public benefits to the Chesapeake Bay Critical Area Program; and*

The new plant will replace an existing plant located within the floodplain of the Susquehanna River. The potential for severe impacts to the water quality of the river in the event of plant failure or flooding will be eliminated. The new plant has been designed with state-of-the-art technology to meet Bay Program/Tributary Strategy Nutrient Cap limits and will assist with reduction of nutrient loadings to the Chesapeake Bay.

(3) *That the project or program is otherwise in conformance with this subtitle.*

The project is in compliance with all other requirements of this subtitle.

C. (1-3) The conditional approval request shall contain the following:

(1) *A showing that the literal enforcement of the provisions of this subtitle would prevent the conduct of an authorized State or local agency program or project;*

The small size of the site does not allow alternative siting for construction of the WWTP. Buffer impacts and tree clearing have been minimized, but unless permitted, the plant could not be constructed. The design and sizing of this plant is mandated by the Federal and State - National Pollutant System Discharge Permit and the Maryland Department of Environment Construction Permit

A literal enforcement of this subtitle would prohibit the construction of the ENR plant necessary to meet State discharge permit effluent limits.

- (2) *A proposed process by which the program or project could be so conducted as to conform, insofar as possible, with the approved local Critical Area program or, if the development is to occur on State-owned lands, with the criteria set forth in COMAR 27.02.05; and*

The project will meet all requirements of the Town of Port Deposit Critical Area Program and will be in conformance with the Town fee-in-lieu program for the total \$29,400 (WWTP and Interceptor) mitigation costs.

The property is classified as IDA - Intensely Developed Area. The 10% Pollutant Restriction Reduction Rule for post construction conditions is met. Development of the site will require clearing of approximately 13,580 square feet of forest clearing and 12,320 square feet of stream buffer impacts. Mitigation requirements will be added to a collateral project - Rt. 222 Interceptor previously approved by the Commission.

Existing conditions on the proposed WWTP site already consist of impervious surface measuring 10,454 square feet from a house, driveway and railroad activities associated with the tracks on the south side. The proposed WWTP will encompass a total of 19,080 square feet, for an increase of 8,626 square feet over existing conditions.

The existing WWTP, which will be demolished, sits on 16,800 square feet of impervious in the 100 year floodplain between the railroad tracks and the river. This site will be restored and planted to a natural condition and returned to the Town's Marina Park.

There will be a net decrease of 8,174 square feet of impervious when this occurs.

- (3) *Measures proposed to mitigate any adverse effects of the project or program on an approved local Critical Area program or, if on State-owned lands, on the criteria set forth in COMAR 27.02.05.*

Proposed mitigation is to provide fee-in-lieu for the Town of Port Deposit to complete planting plans for their Marina Park and Memorial. Planting will consist of:

70	2" caliper trees
210	2' - 3' shrubs

The planting areas will be in an open area between the railroad tracks and the river and will supplement the Town planting plan for the waterfront Memorial Park.

Offset ✓

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements¹

Step 1: Calculate Existing and Proposed Site Imperviousness

A. Calculate Percent Imperviousness

1) Site Area within the Critical Area IDA, A = 0.30 acres

2) Site Impervious Surface Area, Existing and Proposed, (See Table 4.1 for details)

	(a) Existing (acres)	(b) Proposed (acres)
Roads	_____	_____
Parking lots	_____	_____
Driveways	_____	_____
Sidewalks/paths	_____	_____
Rooftops	<u>0.30</u>	_____
Decks	_____	_____
Swimming pools/ponds	_____	_____
Other	_____	_____
Impervious Surface Area	<u>0.30</u>	_____

3) Imperviousness (I)

Existing Imperviousness, I_{pre} = Impervious Surface Area / Site Area
 = (Step 2a) / (Step 1)
 = _____ / _____
 = 100 %

Proposed Imperviousness, I_{post} = Impervious Surface Area / Site Area
 = (Step 2b) / (Step 1)
 = _____ / _____
 = _____ %

B. Define Development Category (circle)

- 1) New Development: Existing imperviousness less than 15% I (Go to Step 2A)
- 2) Redevelopment: Existing imperviousness of 15% I or more (Go to Step 2B)
- 3) Single Lot Residential Development: Single lot being developed or improved; single family residential development; and more than 250 square feet of impervious area and associated disturbance (Go to Section 5, Residential Approach, for detailed criteria and requirements).

¹ NOTE: All acreage used in this worksheet refers to areas within the IDA of the Critical Area only.

Step 2: Calculate the Predevelopment Load (L_{pre})

A. New Development

$$\begin{aligned}
 L_{pre} &= (0.5) (A) \\
 &= (0.5) (\quad) \\
 &= \quad \text{lbs /year of total phosphorus}
 \end{aligned}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
- 0.5 = Annual total phosphorus load from undeveloped lands (lbs/acre/year)
- A = Area of the site within the Critical Area IDA (acres)

B. Redevelopment

$$\begin{aligned}
 L_{pre} &= (R_v) (C) (A) (8.16) \\
 R_v &= 0.05 + 0.009 (I_{pre}) \\
 &= 0.05 + 0.009 (\underline{100}) = \underline{0.95} \\
 L_{pre} &= (\underline{0.95}) (\underline{0.3}) (\underline{0.3}) (8.16) \\
 &= \underline{0.7} \text{ lbs/year of total phosphorus}
 \end{aligned}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
- R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff
- I_{pre} = Pre-development (existing) site imperviousness (i.e., $I = 75$ if site is 75% impervious)
- C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l
- A = Area of the site within the Critical Area IDA (acres)
- 8.16 = Includes regional constants and unit conversion factors

Step 3: Calculate the Post-Development Load (L_{post})
A. New Development and Redevelopment:

$$L_{\text{post}} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{\text{post}})$$

$$= 0.05 + 0.009 (0) = 0.05$$

$$L_{\text{post}} = (0.05) (0.3) (0.3) (8.16)$$

$$= 0.037 \text{ lbs/year of total phosphorus}$$

Where:

L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)

R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff

I_{post} = Post-development (proposed) site imperviousness (i.e., $I = 75$ if site is 75% impervious)

C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l

A = Area of the site within the Critical Area IDA (acres)

8.16 = Includes regional constants and unit conversion factors

Step 4: Calculate the Pollutant Removal Requirement (RR)

$$RR = L_{\text{post}} - (0.9) (L_{\text{pre}})$$

$$= (0.037) - (0.9) (0.7)$$

$$= -0.59 \text{ lbs/year of total phosphorus}$$

Where:

RR = Pollutant removal requirement (lbs/year)

L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)

L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)

Step 5: Identify Feasible BMP(s)

Select BMP Options using the screening matrices provided in the Chapter 4 of the 2000 Maryland Stormwater Design Manual. Calculate the load removed for each option.

BMP Type	(L _{post})	x	(BMP _{RE})	x	(% DA Served)	=	LR
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
_____	_____	x	_____	x	_____	=	_____ lbs/year
						Load Removed, LR (total) =	_____ lbs/year
						Pollutant Removal Requirement, RR (from Step 4) =	_____ lbs/year

Where:

- Load Removed, LR = Annual total phosphorus load removed by the proposed BMP (lbs/year)
- L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)
- BMP_{RE} = BMP removal efficiency for total phosphorus, Table 4.8 (%)
- % DA Served = Fraction of the site area within the critical area IDA served by the BMP (%)
- RR = Pollutant removal requirement (lbs/year)

If the Load Removed is equal to or greater than the Pollutant Removal Requirement computed in Step 4, then the on-site BMP complies with the 10% Rule.

Has the RR (pollutant removal requirement) been met? Yes No

Worksheet A: Standard Application Process

Calculating Pollutant Removal Requirements¹

Step 1: Calculate Existing and Proposed Site Imperviousness

A. Calculate Percent Imperviousness

- 1) Site Area within the Critical Area IDA, A = 2.7 acres
- 2) Site Impervious Surface Area, Existing and Proposed, (See Table 4.1 for details)

	(a) Existing (acres)	(b) Proposed (acres)
Roads		0.4
Parking lots		
Driveways		
Sidewalks/paths		0.38
Rooftops	0.025	0.17
Decks		
Swimming pools/ponds		0.48
Other		
Impervious Surface Area	0.025	1.088

3) Imperviousness (I)

Existing Imperviousness, I_{pre} = Impervious Surface Area / Site Area
 = (Step 2a) / (Step 1)
 = $(\frac{0.025}{2.7}) / (\frac{1.088}{2.7})$
 = 0.93 %

Proposed Imperviousness, I_{post} = Impervious Surface Area / Site Area
 = (Step 2b) / (Step 1)
 = $(\frac{1.088}{2.7}) / (\frac{1.088}{2.7})$
 = 40 %

B. Define Development Category (circle)

- 1) New Development: Existing imperviousness less than 15% I (Go to Step 2A)
- 2) Redevelopment: Existing imperviousness of 15% I or more (Go to Step 2B)
- 3) Single Lot Residential Development: Single lot being developed or improved; single family residential development; and more than 250 square feet of impervious area and associated disturbance (Go to Section 5, Residential Approach, for detailed criteria and requirements).

¹ NOTE: All acreage used in this worksheet refers to areas within the IDA of the Critical Area only.

Step 2: Calculate the Predevelopment Load (L_{pre})

A. New Development

$$\begin{aligned}
 L_{pre} &= (0.5) (A) \\
 &= (0.5) (\underline{2.7}) \\
 &= \underline{1.35} \text{ lbs/year of total phosphorus}
 \end{aligned}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
- 0.5 = Annual total phosphorus load from undeveloped lands (lbs/acre/year)
- A = Area of the site within the Critical Area IDA (acres)

B. Redevelopment

$$\begin{aligned}
 L_{pre} &= (R_v) (C) (A) (8.16) \\
 R_v &= 0.05 + 0.009 (I_{pre}) \\
 &= 0.05 + 0.009 (\underline{\hspace{2cm}}) = \underline{\hspace{2cm}} \\
 L_{pre} &= (\underline{\hspace{2cm}}) (\underline{\hspace{2cm}}) (\underline{\hspace{2cm}}) (8.16) \\
 &= \underline{\hspace{2cm}} \text{ lbs/year of total phosphorus}
 \end{aligned}$$

Where:

- L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)
- R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff
- I_{pre} = Pre-development (existing) site imperviousness (i.e., $I = 75$ if site is 75% impervious)
- C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l
- A = Area of the site within the Critical Area IDA (acres)
- 8.16 = Includes regional constants and unit conversion factors

Step 3: Calculate the Post-Development Load (L_{post})**A. New Development and Redevelopment:**

$$L_{\text{post}} = (R_v) (C) (A) (8.16)$$

$$R_v = 0.05 + 0.009 (I_{\text{post}})$$

$$= 0.05 + 0.009 (40) = 0.41$$

$$L_{\text{post}} = (0.41) (0.3) (2.70) (8.16)$$

$$= 2.71 \text{ lbs/year of total phosphorus}$$

Where:

L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)

R_v = Runoff coefficient, which expresses the fraction of rainfall which is converted into runoff

I_{post} = Post-development (proposed) site imperviousness (i.e., $I = 75$ if site is 75% impervious)

C = Flow-weighted mean concentration of the pollutant (total phosphorus) in urban runoff (mg/l) = 0.30 mg/l

A = Area of the site within the Critical Area IDA (acres)

8.16 = Includes regional constants and unit conversion factors

Step 4: Calculate the Pollutant Removal Requirement (RR)

$$RR = L_{\text{post}} - (0.9) (L_{\text{pre}})$$

$$= (2.71) - (0.9) (1.35)$$

$$= 1.5 \text{ lbs/year of total phosphorus}$$

Where:

RR = Pollutant removal requirement (lbs/year)

L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)

L_{pre} = Average annual load of total phosphorus exported from the site prior to development (lbs/year)

Section 4.0 Standard Application Process

Step 5: Identify Feasible BMP(s)

Select BMP Options using the screening matrices provided in the Chapter 4 of the 2000 Maryland Stormwater Design Manual. Calculate the load removed for each option.

BMP Type	(L_{post})	x	(BMP_{RE})	x	(% DA Served)	=	LR
WWTP	2.71	x	90%	x	24%	=	0.58 lbs/year
Infiltration	2.71	x	65%	x	25%	=	0.44 lbs/year
Offset		x		x		=	0.59 lbs/year
		x		x		=	
Load Removed, LR (total) =							1.61 lbs/year
Pollutant Removal Requirement, RR (from Step 4) =							1.50 lbs/year

Where:

- Load Removed, LR = Annual total phosphorus load removed by the proposed BMP (lbs/year)
- L_{post} = Average annual load of total phosphorus exported from the post-development site (lbs/year)
- BMP_{RE} = BMP removal efficiency for total phosphorus, Table 4.8 (%)
- % DA Served = Fraction of the site area within the critical area IDA served by the BMP (%)
- RR = Pollutant removal requirement (lbs/year)

If the Load Removed is equal to or greater than the Pollutant Removal Requirement computed in Step 4, then the on-site BMP complies with the 10% Rule.

Has the RR (pollutant removal requirement) been met? Yes No

Eco-Science Professionals, Inc.



CONSULTING ECOLOGISTS

January 23, 2007

Ms. Holly Sepety
MD DNR - Wildlife and Heritage Service
Tawes State Office Building, E-1
580 Taylor Ave.
Annapolis, MD 21401

RE: Bainbridge Waste Water Treatment Plant

Dear Ms. Sepety,

Eco-Science Professionals, Inc has been contracted to perform a natural resource assessment and inventory of the referenced project site. As part of this assessment we are seeking information relative to the known/expected/potential occurrence of Rare, Threatened and Endangered (RTE) species on and around the property. The project will include the removal of the existing waste water treatment plant and the construction of a new facility on an adjacent property. The project is located along just off Route 222, in and adjacent to the floodplain of the Susquehanna River, in the Port Deposit section of Cecil County, Maryland.

The following has been excerpted from a site condition report to give some background as to the current site conditions:

The Logan Property is roughly 2.5 acres comprised of two parcels that are located off of Route 222 on the north side of the existing railroad tracks. The existing WWTF occurs within a 0.3 ± acre fenced area along the shoreline of the Susquehanna River and is separated from the Logan Property by the railroad right of way. The purpose of our field review was to determine the nature and extent of regulated resources on these properties. It is our understanding that a plan is being developed to construct a new WWTF on the Logan Property and abandon/raze the existing facility.

The Logan Property contains an abandoned homesite, former lawn areas, scattered trees and steep forested slopes. The level portions of the property have been previously developed for the home and associated railroad facilities. Currently no active uses appear to be ongoing on the site. Soils on the site are well drained but many samples revealed a stone bed 4-6 inches deep. This stone bed appears to be comprised of cobble/gravel sized material. It is not clear if this material is native or had been imported to the site as



part of the past development. The property is separated from the 100 year floodplain of the Susquehanna River by the elevated railroad tracks that run along the southwestern edge of the site. No wetlands are present on this property. The forested slopes are severe and occupy approximately 1.1 acres of the site. There is some evidence of slope failure and erosion along the slope face.

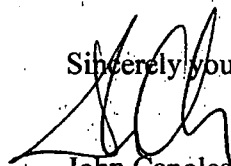
The existing WWTF occurs within the 100 year floodplain of the river. The facility includes wastewater tanks, sludge drying beds, and associated infrastructure. The facility is fenced. Areas inside the fence are intensely used. Adjacent areas within the floodplain are maintained as gravel parking lots.

The shoreline of the Susquehanna River has been historically armored with stone, concrete rubble, and poured concrete. No tidal wetlands are present along the shoreline. Some aquatic vegetation was observed floating offshore, it could not be determined if there are SAV beds along the shoreline at the time of this visit.

The development is being designed to avoid all direct wetland/stream impacts.

Thank you for your time and effort this matter. Please do not hesitate to contact me if you have any further questions related to this issue. Your prompt attention to this matter would be appreciated.

Sincerely yours,



John Canoles

Enc.

cc: Kate Schmidt
Natural Resource Planner
Critical Area Commission for the
Chesapeake and Atlantic Coastal Bays
1804 West Street, Suite 100
Annapolis, MD 21401

**MITIGATION RATIOS FOR THE PORT DEPOSIT
WASTE WATER TREATMENT PLANT**

Per 6/7/07 CAC Letter

Mitigation for sewer line/interceptor 6,750 square feet

Per 4/3/08 CAC Letter

Mitigation for disturbance to the 100 foot Buffer
for the construction of the waste treatment plant

12,320 square feet at 3:1 = 36,960 square feet

12,320 must be planted in the Buffer

Per 4/3/08 CAC Letter

FIDS Habitat mitigation at 1:1 13,580 square feet

TOTAL MITIGATION 57,290 square feet

Proposed Costs associated with plantings

(trees and shrub should be planted in combination to qualify for the 400 square foot credit)

Trees - \$300.00 per tree x 143 = \$42,900

Shrubs \$40.00 per shrub x 429 = \$17,160

Total Cost \$60,060



**PORT DEPOSIT
WATER & SEWER
AUTHORITY**

GEORGE PERDIKAKIS
RICHARD ALTER, *ACTING CHAIRMAN*
ROB FLAYHART, *MEMBER*
REV. BARRY GRAY, *MEMBER*
BRIAN LAFOND, *MEMBER*
KERRY ANNE ABRAMS, *MEMBER*

May 1, 2008

Honorable Kerry Anne Abrams
Mayor
Town of Port Deposit
Town Hall
64 S. Main Street
Port Deposit, MD 21904

Re: Agreement for WWTP Mitigation

Dear Mayor Abrams:

This letter will serve to formalize the agreement between the Town of Port Deposit and The Port Deposit Water and Sewer Authority (PDWSA) to cooperate in the matter of vegetative plantings to meet the Chesapeake Bay Critical Areas mitigation requirements for the construction of the new Wastewater Treatment Plant.

As a result of the consensus achieved at the April 14, 2008 meeting, the Authority has contracted with Stantec Engineering to produce a planting plan which uses the Town's Marina Park and Memorial Plaza base plan for the purposes of selecting areas which are suitable for meeting the Authority's planting requirements and supplements the Town landscaping plans. Since both the Town and the Authority have approved the plan dated April 24, 2008, the Authority agrees to pay a fee-in-lieu of planting, totaling \$34,100 according to the schedule below:

81	2" caliper trees	@	\$300/tree	=	\$ 24,300
245	2'-3' shrubs	@	\$40/shrub	=	\$ 9,800

In the event actual costs for plant materials, installation and mulching exceed \$34,100, the PDWSA will pay these costs for the Town to fulfill its obligation as outlined in the WWTP mitigation plan. The Authority will also assume costs for plan amendments if required by the Chesapeake Bay Critical Areas Commission.

Please sign and return this letter to acknowledge your acceptance of this proposal.
If additional information is necessary, please contact me at (410) 296-3333.

Sincerely,

J. James Dieter
Interim Executive Director
Port Deposit Water and Sewer Authority

Honorable Kerry Anne Abrams
Mayor for Town of Port Deposit

Date

J. James Dieter

Date

Schmidt, Katherine

From: Roger A. Greve [RGreve@gmbnet.com]
Sent: Tuesday, March 25, 2008 4:10 PM
To: Schmidt, Katherine
Cc: maskilling@mdp.state.md.us; James Dieter; Jason M. Lytle
Subject: Port Deposit WWTP - Critical Area Buffer Information

Kate,

Thank you for meeting with Jim and me today in regard to the WWTP for Port Deposit (Bainbridge). I've enclosed the impervious area information within the Critical Area Buffer that you requested today.

Impervious Areas Within the Critical Area Buffer

- | | | | |
|----|-------------------------------|-----------------|---|
| 1) | Sludge Processing Building: | 1339.28 sf | |
| 2) | Entrance Road and Paved Area: | 4216.72 sf | |
| 3) | Sidewalk Area: | 51.19 sf | |
| 4) | Transformer Pad: | 35 sf | (labeled on the stormwater management plan) |
| 5) | Influent Plant Drain: | 115 sf | (labeled on the stormwater management plan) |
| 6) | Stormwater Manhole (SW-1): | 28.06 sf | (labeled on the stormwater management plan) |
| 7) | Stormwater Headwall (HW-1): | 34.05 sf | (labeled on the stormwater management plan) |
| 8) | Stormwater Headwall (HW-2): | <u>34.05 sf</u> | (labeled on the stormwater management plan) |

Total: 5,853.35 sf (0.13 ac)

I'm in the process of verifying the tree removal area(s) inside of the Critical Area Buffer and rooftop areas.

I will be emailing you the plans for both stormwater management and erosion & sediment control today also.

Thank you,

Roger A. Greve
Project Engineer

GMB

120 Sparks Valley Road
Suite A
Sparks, MD 21152

410.329.5005
410.329.5881 (fax)
www.gmbnet.com

Treated Imp.

Classics - 0.48

Rooftops - 0.17

$$\frac{0.65}{2.7} = 24\%$$

3/25/2008

I. INTRODUCTION

Eco-Science Professionals, Inc. was contracted by, MTPM LLC, to perform a Critical Area Environmental Assessment of the proposed Bainbridge Wastewater Treatment Plant and Route 222 Sewer Interceptor. The project will involve the development of a new waste water treatment facility on the Logan Property, the removal of the existing waste water treatment facility from within the 100 year floodplain of the Susquehanna River, and the construction of a replacement sewer interceptor within Route 222. The work associated with the new construction removal of the existing waste water treatment facility and a portion of the sewer line installation will occur within the Chesapeake Bay Critical Area.

II. EXISTING CONDITIONS

The implementation of the development plan will impact the Logan property and the existing waste water treatment plant (WWTP) property. The Logan Property is roughly 2.7 acres comprised of two parcels that are located off of Route 222 on the north side of the existing railroad tracks. The existing WWTP occurs within a $0.3 \pm$ acre fenced area along the shoreline of the Susquehanna River and is separated from the Logan Property by the railroad right of way.

The Logan Property contains an abandoned homesite, former lawn areas, scattered trees and steep forested slopes. The level portions of the property have been previously developed for the home and associated railroad facilities. Currently no active uses appear to be ongoing on the site. Soils on the site are well drained but many samples revealed a stone bed 4-6 inches deep. This stone bed appears to be comprised of cobble/gravel sized material. It is not clear if this material is native or had been imported to the site as part of the past development. The property is separated from the 100 year floodplain of the Susquehanna River by the elevated railroad tracks that run along the southwestern edge of the site. No wetlands are present on this property. The forested slopes are severe and occupy approximately 1.1 acres of the site. There is some evidence of slope failure and erosion along the slope face. The forest on the slopes varies from young oak poplar to black locust dominated areas on steeper/eroded soils.

The onsite forest does not provide forest interior habitat as it is located along the outer edge of the stand. The entire onsite stand is impacted by the edge effect. Given the steepness of the slopes, the edge effect may actually extend beyond the standard 100 foot width. The onsite forest may act as a buffer to interior habitat on the adjacent properties and steep slopes.

The existing WWTP occurs within the 100 year floodplain of the river. The facility includes wastewater tanks, sludge drying beds, and associated infrastructure. The facility is fenced. Areas inside the fence are intensely used. Adjacent areas within the floodplain are maintained as gravel parking lots.

The shoreline of the Susquehanna River has been historically armored with stone, concrete rubble, and poured concrete. No tidal wetlands are present along the shoreline.

The proposed sewer interceptor has been designed to utilize the Route 222 right of way. The work will occur within the State right of way and will occur within the paved sections and along the vegetated road shoulder. Vegetation along the shoulder is varied and includes mowed grass and shrubby forest edge. Woody vegetation along the shoulder includes young black locust, black cherry, red maple, tulip poplar and box elder. Multiflora rose and bush honeysuckle are typically dense in the shrub layer. A stream system is present along the road shoulder. This system is confined within a deeply incised channel and does not support adjacent wetlands. The stream is piped as it travels back and forth across the right of way.

III. CRITICAL AREA ENVIRONMENTAL ASSESSMENT

The subject property occur within the Chesapeake Bay Critical Area. The CBCA zoning class for the property is IDA- Intensely Developed Area. As such development of the site will require compliance with the CBCA 10 percent pollutant reduction.

The project engineer has completed an assessment of the existing and proposed conditions for both the existing and the proposed wastewater treatment facilities. For the existing facility location the plan proposes the removal of all existing impervious surfaces. The removal of impervious results in a credit of 0.59 lbs/yr of total phosphorus discharge. ON the proposed facility site the project will include removal of existing home and driveway and construction of the facility. Existing impervious has been calculated at 0.025 acres (0.93%). The site development plans are proposing a post construction condition with 1.008 acres (40.6%) of impervious surface. In accordance with the 10 percent reduction calculation requirements the existing site conditions result in an average of 1.35 lbs of additional phosphorus runoff from the site each year. The proposed development will create 2.71 lbs of phosphorus runoff per year in accordance with the calculations. Following Step 4 of the 10 percent reduction form, it has been determined that the post construction conditions, when combined with the credit for the removal of the existing facility will meet the Pollutant Reduction Requirement. The calculation forms are attached.

In addition to addressing the 10 percent reduction requirements, it should be noted that the removal of the existing WWTP from within the 100 year floodplain will provide substantial

potential for water quality improvements. Removing the existing facility from within the 100 year floodplain will greatly reduce the possibility for flood induced release of untreated waste occurring. The new facility will be located outside the floodplain and should have a much reduced of flooding.

Development of the site may impact a portion of the forested slopes and will require clearing of trees on the level portion of the Logan Property. Based on preliminary field assessment it is estimated that 16,000 sq.ft. of forest will be disturbed by this project. This forest clearing occurs within 15 feet of the forest edge and will not impact forest interior dwelling bird habitat. Due to the steep slopes adjacent to the site, the limited forest clearing should have not indirect impact to the offsite interior habitats.

The plans provided indicate that grading is proposed within the 100 year floodplain. This work, in addition to the removal of the WWTF, will require approval from the Maryland Department of the Environment's (MDE) Waterway Construction Program.

No impacts to wetlands and no permanent impacts to waters only resources are anticipated for this project. The project will not impact colonial nesting waterbird habitat, rare threatened of endangered species or their habitat. The project will have no impact on anadromous fish habitat.

IV. CONCLUSIONS

The proposed relocation of the waste water treatment plant has been designed to meet the Chesapeake Bay Critical Area requirements. The project meets the 10 percent pollutant reduction requirement and the project will not impact priority resource areas within the Critical Area. The proposed project will result in the removal of the waste water treatment plan facilities from within the 100 year floodplain.

The project meets the goals and intent of the Critical Area Regulations.

V. AUTHORSHIP

This study was performed by John Canoles and Henry Leskinen. Co-founders of Eco-Science Professionals, Inc., they have extensive experience in natural resources assessments and inventories. Mr. Canoles received his Bachelor of Sciences degree in Natural Science with an Environmental Conservation Concentration from Towson State University in Towson, Maryland. Mr. Leskinen received his Bachelor of Sciences degree from St. Marys College of Maryland in St. Marys City, Maryland. Messrs. Canoles and Leskinen have attended the Maryland State Forestry Conservation Act workshop and have been accepted as Qualified Professionals by MD DNR Public Lands and Forestry (Appendix D).

APPENDIX A

10 Percent Reduction Calculation



HODES, PESSIN & KATZ, P.A.

901 Dulaney Valley Road • Suite 400 • Towson, MD 21204
Phone 410.938.8800 • Fax 410.832.5676 • www.hpkllegal.com

ATTORNEYS AT LAW

Randall M. Lutz, Esquire | Telephone: 410.339.6744 | Facsimile: 410.832.5632 | Email: rlutz@hpkllegal.com

March 29, 2007

VIA FEDERAL EXPRESS

Mr. Lloyd R. Clingenpeel
Norfolk Southern Corporation
Real Estate and Contract Services
110 Franklin Road, SE
Roanoke, Virginia 24042-0059

Re: Purchase of Port Deposit, Maryland Tract

Dear Mr. Clingenpeel:

The Port Deposit Water & Sewer Authority has authorized the execution of the contract to purchase a 34,937 square foot parcel of property from Norfolk Southern Corporation, and has had its Chairman, George Perdikakis, sign the two originals of the proposal that you recently sent to me for signing.

Enclosed herewith is one of the signed originals of the proposal for your files. I have kept the other signed original for my files. I assumed you wanted me to keep one of the originals since there is no place to indicate acceptance by NSC management on this document. I assumed you would notify me when management accepts the proposal to make it a binding contract. That is an important date, since it starts the running of the study period. Please notify me by email immediately when management accepts the proposal.

If you have any questions or issues, please do not hesitate to communicate with me. We appreciate your efforts to make this project happen.

Sincerely,



Randall M. Lutz

cc: Mr. George Perdikakis
Mr. James Dieter



**NORFOLK
SOUTHERN**

Norfolk Southern Corporation
Real Estate and Contract Services
110 Franklin Road, SE
Roanoke, VA 24042-0059

Lloyd R. Clingenpeel
Sr. Manager Real Estate
Phone: (540) 981-4909
Fax: (404) 981-4226
Email: Lloyd.Clingenpeel@NSCorp.com

March 21, 2007

Activity No.:1072436

Mr. George G. Perdikakis
Port Deposit Water & Sewer Authority
1527 York Road
Lutherville, Maryland 21093

Dear Mr.Perdikakis:

This letter refers to the interest of the Port Deposit Water & Sewer Authority (hereinafter referred to as "Grantee") in acquiring from Norfolk Southern Railway Company (hereinafter referred to as "Grantor") a certain piece or parcel of land consisting of 34,937 square feet, more or less, for construction of a sanitary wastewater treatment plant, two thirty feet wide easements or rights of way, one for the construction, operation, maintenance and removal of an eighteen (18) inch sanitary outfall pipeline and two twenty-four (24) inch storm water pipelines and the other for the construction, operation, maintenance and removal of a thirty six (36) inch storm water pipeline over, under and through the land of Grantor, and a construction easement for access to the area abutting the Grantor's property on the side facing the Susquehanna River, all such areas being situated in the Town of Port Deposit, Cecil County, Maryland (hereinafter referred to as "Premises").

Grantor is willing to consider Grantee's interest in purchasing the Premises based on the following:

- (1) The purchase price is ONE HUNDRED TWO THOUSAND AND NO/100 DOLLARS (\$102,000.00) for the Premises as shown on Proposed Grading Plan entitled Bainbridge Wastewater Treatment Plant for the Port Deposit Water & Sewer Authority, Port Deposit, Maryland dated November 1, 2006 as prepared by George, Miles & Buhr, LLC. The purchase price shall be tendered to the Grantor in cash or by cashier's or certified check at the time of closing.
- (2) Within sixty (60) days after acceptance by Grantor's management, Grantee shall furnish the Grantor with two copies of a survey and legal description of the land and easement area prepared by G. E. Stephens and Associates, Inc., a land surveyor registered in the State of Maryland. The Grantee shall pay all costs associated with the same. The legal description shall be in a format acceptable for recording in the County or City where the Premises are located and subject to the approval of the Grantor, which shall not be unreasonably withheld.
- (3) The conveyance shall be by Quitclaim Deed, subject to any and all other conditions, restrictions, reservations, easements, licenses, and leases of record and all rights which are apparent from a visual inspection of the Premises.

(4) All property taxes, assessments and rentals shall be prorated between Grantee and Grantor as of the date of closing. Grantor shall be responsible for preparation of the deed and obtaining any necessary mortgage releases. All closing costs, including but not limited to transfer taxes, shall be the responsibility of the Grantee.

(5) Grantee shall take possession of the Premises at closing.

(6) Any and all required permits, licenses, approvals, zoning, subdivision compliance and financing shall be obtained by the Grantee at its sole effort and expense.

(7) It is agreed that no real estate commissions are due or owed by Grantor with respect to this transaction. Grantee and Grantor hereby agree to hold each other harmless from and against any and all claims and liabilities for real estate or brokerage fees arising out of this transaction which are made by any broker or real estate agent claiming to have represented the Grantee or Grantor.

(8) The Premises will be sold "as is" and "where is" without any express or implied representation or warranty with respect to its habitability, condition or suitability for any purpose, including but not limited to, the condition of the soil, the presence of hazardous materials, substances, wastes or other environmentally regulated substances, whether known or unknown, and the presence of underground storage tanks and other physical characteristics. During a 60-day study period after acceptance by Grantor's management, Grantee shall perform at its own expense and rely solely on its own independent investigation concerning the physical condition of the Premises (including but not limited to environmental assessments) and the Premises' compliance with any applicable law and regulation. In the event that Grantee's investigation shall disclose the presence of any hazardous material, substances, wastes or other environmentally regulated substances or other physical characteristics at the site which render the Premises unusable, Grantee, at its option, shall have the right to withdraw from the transaction. If Grantee consummates the purchase, Grantee shall assume all responsibility for the environmental conditions of the Premises, including but not limited to, the presence of underground storage tanks, regardless of cause, and Grantee shall hold Grantor harmless from any and all liability arising out of such conditions. Further, Grantee shall be deemed to have waived any and all claims against the Grantor relative to such conditions, including but not limited to those arising under Sections 107 and 113 of CERCLA, other comparable federal or state laws or common law. In the event Grantee elects not to close as provided in this paragraph, Grantee shall promptly provide Grantor with copies of all reports, including but not limited to, environmental reports, secured in connection with its investigation of the Premises.

(9) The closing shall be held at a mutually agreed upon location and time, but no later than July 31, 2007.

(10) Prior to or concurrent with the conveyance of the Premises to Grantee, Grantee shall cause the Town of Port Deposit, at Grantee's expense, to adopt a resolution restricting any and all improvements on its property presently being used for the existing sanitary sewer wastewater treatment plant and the adjacent park area situated between the railroad tracks of Grantor and the northern bank of the Susquehanna River except recreational improvements limited to parking spaces, picnic areas, associated park landscaping, boat ramps, boat slips with supporting piers and

shoreline treatments such as the erection of a bulkhead to repel shoreline erosion. In the event Grantee breaches this condition or the Town of Port Deposit, Maryland amends or invalidates the resolution in the future without the consent of Grantor, the easement for the sanitary sewer outfall and the storm water pipelines will cease and terminate and Grantee shall remove its pipelines from the Premises.

(11) Regarding the grant of easements, there shall be a separate easement agreement drafted in recordable form to be executed and recorded at the same time as the deed of conveyance and shall include the following conditions:

a. Grantee will design, construct and maintain the pipelines, at its expense, in such a manner as will not interfere with the operations of Grantor or endanger persons or property of Grantor, and in accordance with (a) plans and specifications approved by Grantor, which approval shall not be unreasonably withheld, (b) applicable governmental regulations or laws, and (c) applicable specifications adopted by the American Railway Engineering Association when not in conflict with plans, specifications or regulations mentioned in (a) and (b) above.

b. Grantor shall not be required to assume any expense in connection with or incident to any construction, maintenance, use or repair of any facilities located within said easement area and shall be exempt from any and all charges, costs or assessments of any kind or character on account of the construction, maintenance, use or repair of any facilities located within said easement area under and across the aforesaid parcel of land or adjacent property of Grantor.

c. If, at any time Grantee determines that the easement herein granted or any part thereof, shall no longer be used or required by Grantee, its successors or assigns, for the purposes which granted, the same shall terminate and Grantee, its successors or assigns, shall execute such instruments as now provided or as may be hereinafter provided by law to clear title to the aforesaid property.

d. Upon termination of the easement for any reason, Grantee shall remove all facilities placed within the easement area and restore the property to a condition acceptable to Grantor's chief engineering officer.

e. Grantor's Superintendent at Harrisburg, Pennsylvania, shall be given at least forty-eight (48) hours' advance notice before entry upon the property. The Superintendent is Mr. J. W. Hall, whose telephone number is (717) 541-2101.

f. All reasonable care shall be exercised and such precautions taken as said Superintendent, or his authorized representative, may deem necessary to protect Grantor's facilities and operations. Grantor reserves the right to place watchmen, flagmen, inspectors and supervisors for protection purposes during Grantee's construction of the wastewater treatment plant on the Premises or Grantee's maintenance activities on the easement area and the expense thereof, including the expense of any material furnished, shall be promptly paid by Grantee upon receipt of Grantor's bill therefor. In addition to direct wage and material cost, such expense shall include, but shall not be limited to, cost of supervision, traveling expenses, Federal Railroad Retirement and Unemployment Taxes, vacation allowances and all other expense incidental thereto.

g. No drainage conditions shall be created or allowed to exist which would be adverse to Grantor's property.

h. A minimum clearance of fifteen (15) feet from the centerline of the nearest track shall be maintained at all times for any material, equipment or vehicles of Grantee occupying Grantor's property unless authorized in writing by Grantor or Grantor's Superintendent.

i. If Grantor shall make any changes, alterations in or additions to the line, grade, tracks, structures, roadbed, installations or works at or near the pipelines, Grantee shall, at its own cost and expense, upon thirty (30) days' notice in writing from Grantor, make such changes in the location and character of the pipelines as, in the opinion of the chief engineering officer of Grantor, shall be necessary or appropriate to accommodate any construction, improvements, alterations, changes or additions of Grantor.

j. Grantee will notify Grantor prior to the installation and placing in service of cathodic protection in order that tests may be conducted on Grantor's signal, communications and other electronic systems for possible interference. If the pipelines cause degradation of the signal, communications or other electronic facilities of Grantor, Grantee, at its expense, will relocate the cathodic protection and/or modify the pipelines to the satisfaction of Grantor so as to eliminate such degradation. Such modifications may include, without limiting the generality of the foregoing, providing additional shielding, reactances or other corrective measures deemed necessary by Grantor. This provision applies to the existing signal, communications and electronic equipment of Grantor and to any signal, communications or electronic equipment which Grantor may install in the future.

k. If Grantee fails to take any corrective measures requested by Grantor in a timely manner or if an emergency situation is presented which, in the Grantor's judgment, requires immediate repairs to the pipelines, Grantor, at Grantee's expense, may undertake such corrective measures or repairs as it deems necessary or desirable.

l. It is further agreed between the parties that the easement shall be used by Grantee only for the pipelines and for no other purpose without the written permission of the chief engineering office of Grantor.

m. (i) Prior to the installation of the pipelines, Grantee and each of its contractors, shall at its sole expense procure and maintain for the course of any such installation, a Commercial General Liability Insurance policy having a combined single limit of not less than \$1,000,000 for each occurrence, naming Grantor as an additional insured and containing products and completed operations and contractual liability coverage:

(ii) Prior to any entry upon the easement or other railroad property occurring after installation of the pipelines, unless Grantor elects to make available and Grantee pays the then current risk financing fee for each affected installation, Grantee, or its contractor, shall at its sole expense procure and maintain during such entry a policy of Railroad Protective Liability Insurance naming Norfolk Southern Railway Company as a named insured and having combined single limits of not less than \$2,000,000 for each occurrence and \$6,000,000 in the aggregate. Such policy shall be written using Insurance Services Offices Form Numbers CG 00 35 01 07 98

and Pollution Exclusion Amendment Form CG 28 31 07 98.

All insurance required under the preceding subsection (i) shall be underwritten by insurers, and be of such form and content, as may be reasonably acceptable to Grantor. Evidence of such insurance (a certificate of insurance for the Commercial General Liability Insurance policy and an original Railroad Protective Liability Insurance policy for subsequent entry when Grantor does not make available a risk financing fee therefor) shall be furnished to Grantor's Director Risk Management, Three Commercial Place, Norfolk, Virginia 23510-2191 for review and approval.

n. The easement agreement shall further: RESERVE unto Grantor its affiliates, subsidiaries, parent corporations, successors, assigns, licensees and lessees the right to continue to maintain, repair, renew and operate a railroad and appurtenances across the easement area and to construct such additional track(s) and other railroad facilities across said easement area and to maintain, repair, renew and operate the same as in the judgment of Grantor, its affiliates, subsidiaries, parent corporations, successors, assigns, licensees and/or lessees may be requisite and RESERVING, further, unto Grantor, its affiliates, subsidiaries, parent corporations, successors, assigns, licensees and/or lessees the right to install, construct, locate, maintain, repair and renew any fiber optic communications lines and associated structures and facilities related thereto across, under or over said easement area and to maintain, repair, renew and operate the same as in the judgment of Grantor, its affiliates, subsidiaries, parent corporations, successors, assigns, licensees and/or lessees may be requisite.

(12) If this proposal is approved by the Grantor's Management, the terms and conditions contained herein shall ripen into a contract and said contract shall survive delivery of the deed and closing. If this proposal ripens into a contract, Grantee may not assign its interest in the contract without first obtaining the express written consent of the Grantor. Grantee understands that such consent may be withheld for any reason. Grantor shall decide whether or not to accept this proposal within thirty (30) days of the date of this letter.

Please be advised that the undersigned does not have the corporate authority to legally bind Grantor in connection with this proposed transaction. Further, the recommendation of the undersigned may be approved, modified or rejected by Grantor's duly authorized management. Accordingly, this proposal shall not, under any circumstances, be deemed accepted until you have been advised in writing that the Grantor's Management has approved this transaction.

If the forgoing proposal is acceptable, please so indicate by signing in the space below and returning one executed copy of this proposal to me.


Sincerely,



Lloyd R. Clingenpeel

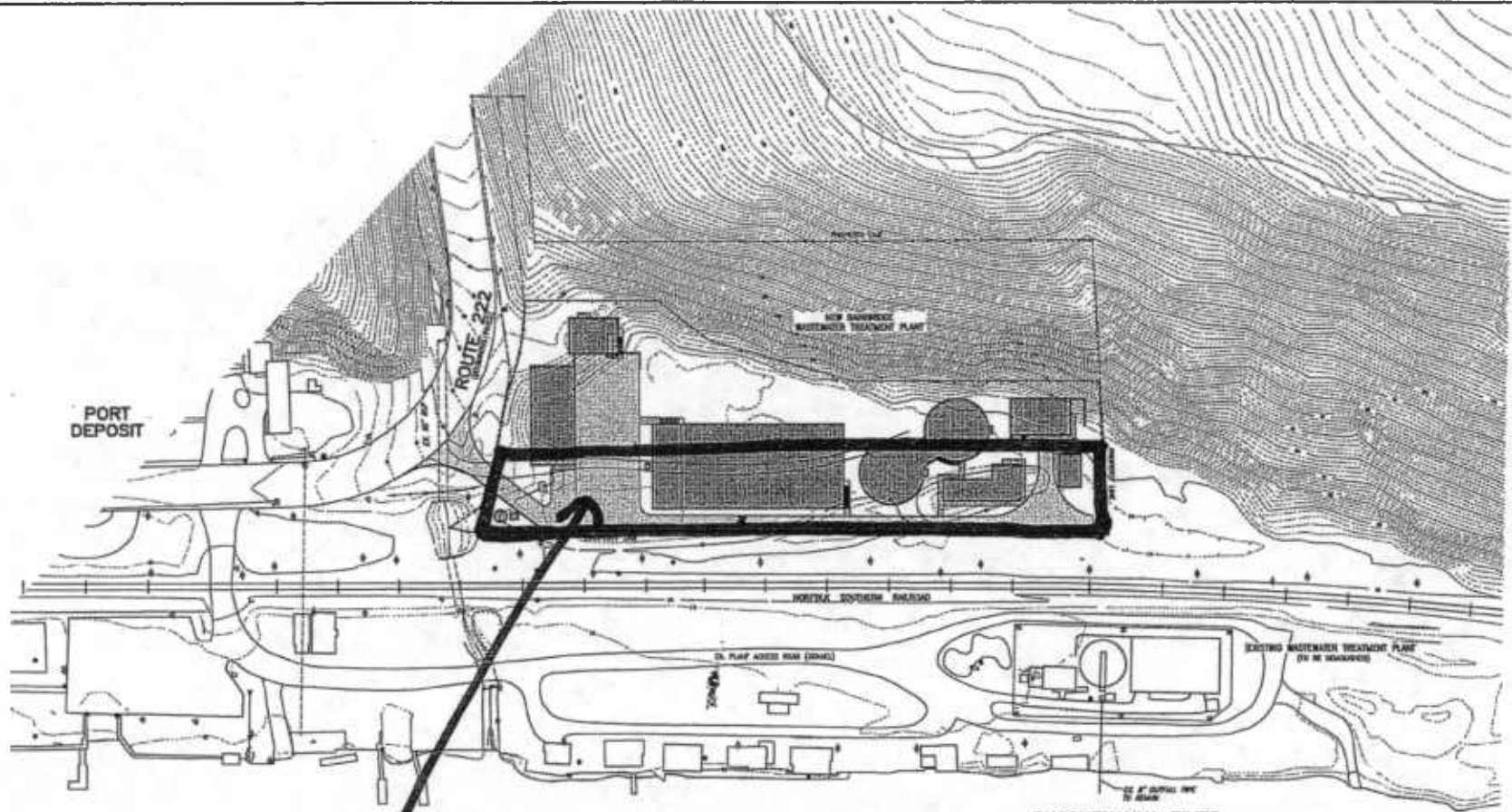
The above terms and conditions are hereby accepted.

PORT DEPOSIT WATER AND SEWER AUTHORITY:

By: 
George G. Perdikakis

Title: Chairman, Board of Directors

Date: 3/27/07



PORT DEPOSIT

ROUTE 222

NEW BAINBRIDGE WASTEWATER TREATMENT PLANT

PORTAL SOUTHERN RAILROAD

RAIL PLANT ACCESS ROAD (EXISTING)

EXISTING WASTEWATER TREATMENT PLANT (10 M DIAMETER)

SUSQUEHANNA RIVER

OVERALL SITE PLAN
SCALE 1" = 40'

RR Property

- LEGEND
- EXISTING STRUCTURES
 - NEW STRUCTURES
 - NEW STABILIZED FIELDS
 - NEW CHANNELS/CHANNELS

GMB

GEORGE, MILES & BURN, LLC
ARCHITECTS & ENGINEERS
MEMBER - NATIONAL ARCHITECTS ASSOCIATION
www.gmbllc.com

OVERALL SITE PLAN

DESIGN JEB	SHEET NO.
DRAWN BNL	C-1
CHECKED JR	
JOB 2003.1208	
DATE OCTOBER, 2004	DRAWING # OF 107

NO.	DATE	REVISIONS

BAINBRIDGE
WASTEWATER TREATMENT PLANT
FOR THE TOWN OF PORT DEPOSIT

RR Property

N:705049.8178
E:1563365.7734

PENNSYLVANIA LINES, LLC
WLB 871/292
WLB 1742/8
TAX MAP 700 PARCEL 288
496.90'

N 42°35'10" W

N 58°00'14" E
65.40'

U.S. ROUTE 222
SRC PLAT NO. 21172 & 6058
(R/W VARIES)

N 40°04'17" E 226.65'

N:705257.9108
E:1563567.1412

S 42°05'10" E
41.38'

S 43°24'50" W 119.00'

5/8" REBAR FOUND
(HELD FOR LINE)

POINT OF BEGINNING

Map 700, Parcel 49
LOGAN'S WHARF LLC
TO
PARCEL 1 SW LLC
WLB 1814/43
2.005 ± ACRES
87342 ± SQ. FT.

HENRY F. COUDON, JR. & ET ALS
WLB 963/620
TAX MAP 29 PARCEL 273

466.00'

S 42°35'10" E



NOTE: The coordinates shown herein are referred to the Maryland Coordinate System (NAD 1983/1991) as established through static GPS observations based on NGS control monument Lapadium Az Mk (PID JV6793) combination factor 1.00003433.

NOTE: A licensed Professional Land Surveyor either personally prepared or was in responsible charge over the preparation of this Exhibit and the surveying work reflected in it, all in compliance with the requirements set forth in Regulation .12 of the Minimum Standards of Practice.

S 44°39'50" W 170.20'

N:704683.9713
E:1563702.0213

N:704805.0245
E:1563821.6631



James H. Hunt
ASSOCIATE
21106 11-02-2006
REG. NO. DATE

PREPARED BY: G.W.STEPHENS, JR. & ASSOC., INC. 4892 MILLENNIUM DRIVE, SUITE 100 BELCAMP, MARYLAND 21017 (410) 297-2340	
EXHIBIT PLAT LOGAN PROPERTY 3RD ELECTION DISTRICT HARFORD COUNTY, MARYLAND	SCALE: 1" = 60'
	DATE: 11-01-2008
	FILE: 10292
	SHEET 1 OF 1



Martin O'Malley, Governor |
Anthony G. Brown, Lt. Governor



John D. Porcari, Secretary
Neil J. Pedersen, Administrator

Maryland Department of Transportation

March 33, 2008

Re: Cecil County
Permit No. 08-AP-CE-006-08
Route No. US 222

To the Permittee:

Enclosed is the access permit far your development. We urge you to carefully read "re permit in its entirety prior to the start of any construction. Most errors in the construction sf these improvements have resulted from a lack of knowledge of the written portion of the permit.

It is required that you contact Mr. Donald Larrimore, Permit Inspector, Chestertown, MD, (Phone: 410-810-3274), 48 hours prior to the start of construction. If you have the slightest doubt about anything at anytime regarding this permit, you may contact him or the Baltimore office immediately at **410-545-5600**.

Immediately after construction is completed, and possibly before the contractor leaves the site, have the Permit Inspector conduct a final inspection so your permit may be promptly released.

Please sign this letter, as noted below, and return it to this office within ten (10) days. For your convenience, a stamped self-addressed envelope is enclosed with this correspondence. Thank you for your cooperation.

Very truly yours,

Steven D. Foster, Chief
Engineering Access Permits Division

I Rave read the permit, and agree to its terms and conditions.

DATE: _____

Signature: _____

Printed Name: _____

DEPARTMENT OF TRANSPORTATION

No. 08-AP-CE-006-08

PERMIT NUMBER STATE HIGHWAY ADMINISTRATION
08-AP-CE-006-08 OF MARYLAND
Baltimore, MD

DATE OF ISSUE
March 13, 2008

ROUTE MILEPOINT PERMISSION IS HEREBY GIVEN:
MD 222 5.34

EXPIRATION DATE
March 13, 2009

Port Deposit Water and Sewer Authority, 1527 York Road, Timonium, MD 21093 (Phone: 410-296-3333), so far as the State Highway Administration has the right and power to grant same, to construct one (1) 25' wide fully channelized commercial type entrance into the Bainbridge Wastewater Treatment Plant, located on the southeast side of Bainbridge Road, (MD 222), 2,800' southwest of Frenchtown Road. Improvements include but are not limited to the following: full-depth pavement and curb and gutter.

Unless otherwise specified below, construction of these improvements and/or modifications shall be in accordance with the latest version of the Maryland Department of Transportation State Highway Administration's Standard Specifications for Construction and Materials and the attached plan, copies of which are on file in this office. The plans and all of their additions and attachments are hereby incorporated in this permit.

It is agreed and understood that this permit constitutes a binding contract between you, your heirs, successors, and assigns, and the SHA, to adhere to the terms and conditions set forth in this permit.

GENERAL PROVISIONS

I. Inspection

A. IMPORTANT: You must notify Linda Lane, District 2 Utility Engineer's Administrative Assistant (Phone: 410-810-3274), to schedule a pre-construction meeting at least 7 days prior to the commencement of any work within the State Highway Administration Right of Way.

You must also notify Mr. Donald Larrimore, Permit Inspector, State Highway Administration, Chestertown, Maryland (Phone: 440-810-3274) 48 hours before the commencement of work, and prior to each successive stage of work. All work is subject to review and approval of the SHA Permit Inspector. Work deemed unacceptable shall be repaired and/or replaced to the satisfaction of the SHA Permit inspector.

AND

You must make notification in accordance with **Engineering Specifications Section II: Utilities, Section III: Work Zone Traffic Control and Maintenance of Traffic, Section VIII: Permanent Signing, Pavement Marking and Traffic Control, and Section VII: Traffic Signals, prior to commencement of work.**

If this notice is not given, it will be necessary to suspend work for a minimum period of 24 hours to allow time for notification of the proper agencies.

B. It shall be the responsibility of you and/or your contractor to notify the SHA Permit Inspector's office upon completion of the work, so that SHA can conduct a final inspection of the modifications and/or improvements. When SHA determines that all work required under the terms of this permit have been completed, SHA will release the permit. Release of this permit does not extinguish this agreement regarding continuing responsibilities of either party concerning maintenance, drainage, traffic signals, land use, etc.



Maryland Department of Planning
Upper Eastern Shore Regional Office

Mary Ann Skilling
Natural Resource Planner
120 Broadway, Suite 10
Centreville, Maryland 21617
410-819-4080
Fax 410-819-4090
410-556-6262
Fax 410-556-6280

MEMORANDUM

TO: Kate Schmidt
FROM: Mary Ann Skilling
RE: Port Deposit WWTP - MHT Response
DATE: 3/26/08

Attached is the response from MHT.

3603 02 100

MDP
 Maryland Department of Planning
 Upper Eastern Shore Regional Office
 Mary Ann Skilling
 Natural Resource Planner
 120 Broadway, Suite 10
 Centreville, Maryland 21617
 410-819-4080
 Fax 410-819-4090
 410-556-6262
 Fax 410-556-6280
 maskilling@mdp.state.md.us



S
MDE

EJZ

MEMORANDUM

TO: Beth Cole

FROM: Mary Ann Skilling

RE: Port Deposit Waste Water Treatment Plant

DATE: 3/4/08 *CE Co.*

Attach is information regarding the Town's new waste water treatment plant in which I am preparing the review by the Critical Area Commission. Since the Port Deposit is considered a historic district, I need your review comments regarding this project. The new site is on the old Logan's Wharf site behind the existing railroad tracks. The site had an old building used for its marina operation and areas in which the railroad has disturbed portions for upgrade of the rails. The old plant will ultimately be removed from the waterfront and out of the floodplain (a good thing). I've attached information regarding the new plant and a location map. If you should need any additional information, please contact me.

outside the limits of the Port Deposit HD. / NRMP
CE-129)

South of Tome School → CE 1284 MMTI Examnt

prior Review for MDE
200706120 1/24/07

The Maryland Historical Trust has determined that this undertaking will have no adverse effect on historic properties.

[Signature] Date *3/13/08*

#2NA BC 3/13/08



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Eric Schwaab, Deputy Secretary

April 20, 2007

Mr. John Canoles
EcoScience Professionals, Inc.
P.O. Box 5006
Glen Arm, MD 21057

RE: Environmental Review for Bainbridge Wastewater Treatment Plant, off of Route 222 and Adjacent to Susquehanna River, Port Deposit, Cecil County, Maryland.

Dear Mr. Canoles:

The Wildlife and Heritage Service's database indicates that there are records for numerous rare species occurring in the Susquehanna River, including the federally- and state-listed endangered Shortnose Sturgeon (*Acipenser brevirostrum*). In order to reduce the likelihood of adverse impacts to this and other important aquatic species in the Susquehanna River, we would encourage strict adherence to all appropriate best management practices (BMPs) during any site disturbance at this project site.

Please note also that the utilization of state funds, the need to obtain a state-authorized permit, or changes to the plan might warrant additional evaluations that could lead to protection or survey recommendations by the Wildlife and Heritage Service. Please contact us again for further coordination if this project falls into one of those categories.

Our analysis of the information provided also suggests that the forested area on the project site contains Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of this habitat is mandated within the Critical Area and must be addressed by the project plan. Specifically, if FIDS habitat is present, the following guidelines should be incorporated into the project plan:

1. Restrict development to nonforested areas.
2. If forest loss or disturbance is unavoidable, concentrate or restrict development to the following areas:
 - a. the perimeter of the forest (i.e., within 300 feet of existing forest edge)
 - b. thin strips of upland forest less than 300 feet wide
 - c. small, isolated forests less than 50 acres in size
 - d. portions of the forest with low quality FIDS habitat, (i.e., areas that are already heavily fragmented, relatively young, exhibit low structural diversity, etc.)
3. Maximize the amount of forest "interior" (forest area >300 feet from the forest edge) within each forest tract (i.e., minimize the forest edge:area ratio). Circular forest tracts are ideal and square tracts are better than rectangular or long, linear forests.

Tawes State Office Building • 580 Taylor Avenue • Annapolis, Maryland 21401

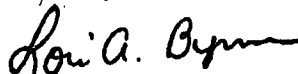
410.260.8DNR or toll free in Maryland 877.620.8DNR • www.dnr.maryland.gov • TTY users call via Maryland Relay

4. Minimize forest isolation. Generally, forests that are adjacent, close to, or connected to other forests provide higher quality FIDS habitat than more isolated forests.
5. Limit forest removal to the "footprint" of houses and to that which is necessary for the placement of roads and driveways.
6. Minimize the number and length of driveways and roads.
7. Roads and driveways should be as narrow and as short as possible; preferably less than 25 and 15 feet, respectively
8. Maintain forest canopy closure over roads and driveways.
9. Maintain forest habitat up to the edges of roads and driveways; do not create or maintain mowed grassy berms.
10. Maintain or create wildlife corridors.
11. Do not remove or disturb forest habitat during April-August, the breeding season for most FIDS. This seasonal restriction may be expanded to February-August if certain early nesting FIDS (e.g., Barred Owl) are present.
12. Landscape homes with native trees, shrubs and other plants and/or encourage homeowners to do so.
13. Encourage homeowners to keep pet cats indoors or, if taken outside, kept on a leash or inside a fenced area.
14. In forested areas reserved from development, promote the development of a diverse forest understory by removing livestock from forested areas and controlling white-tailed deer populations. Do not mow the forest understory or remove woody debris and snags.
15. Afforestation efforts should target a) riparian or streamside areas that lack woody vegetative buffers, b) forested riparian areas less than 300 feet wide, and c) gaps or peninsulas of nonforested habitat within or adjacent to existing FIDS habitat.

The Critical Area Commission's document "A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area" provides details on development standards and information about mitigation for projects where impacts to FIDS habitat cannot be totally avoided. Mitigation plantings for impacts to FIDS habitat may be required under the local government's Critical Area Program. The amount of mitigation required is generally based in whether or not the guidelines listed above are followed.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,



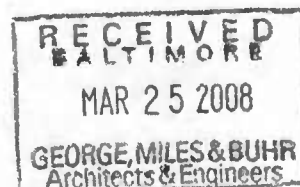
Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER #2007.0242.ce
cc: D. Brinker, DNR
L. Hoerger, CAC
M. Ratnaswamy, USFWS



Cecil Soil Conservation District
105 Chesapeake Boulevard, Suite B-3, Elkton, MD 21921
(410) 398-4411 Ext. 3 410-392-6530 Fax

March 21, 2008



George, Miles & Buhr, LLC
Attn: Roger Greve
120 Sparks Valley Road, Suite A
Sparks, MD 21152

RE: Bainbridge Waste Water Treatment Plant

Dear Mr. Greve:

I have reviewed the erosion and sediment control plan for the above referenced project and offer the following comments:

ES-1

1. Review and revise the Sequence of Construction.
 - a. Install dikes and swales leading to the traps between Sequence #7&8.

Once this revision is made, the plan will meet District standards and may be submitted for approval. Make the revision and Submit six (6) sets of signed and sealed plans for approval. When signing the plans use only blue or red ink. Also keep in mind that the Owner/Developer Certification block may only be signed by the owner of the developing company. A check in the amount of \$221.00 (for 2.46 disturbed acres) made payable to the Cecil Soil Conservation District will be required prior to issuance of the plan. If you have any questions or comments, please feel free to contact me at (410)-398-4411 extension 3 or by e-mail at Chris.brown@md.nacdnet.net.

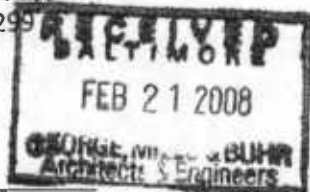
Sincerely,

Chris Brown
Soil Conservationist

Route to: 1- _____	2- _____
3- _____	4- _____
5- _____	6- _____
File No.: _____	
File Name: _____	

**CECIL COUNTY DEPARTMENT
OF PUBLIC WORKS**

129 East Main Street
Elkton, Maryland 21921
Phone: 410-996-5265
Fax: 410-996-5299



TO: GMB
120 Sparks Valley Road, Suite A
Sparks, MD 21152

Transmitted as checked below:

- | | | |
|---|---|--------------------------------|
| <input type="checkbox"/> As requested | <input type="checkbox"/> Submittal for approval | <input type="checkbox"/> Other |
| <input type="checkbox"/> For your use | <input type="checkbox"/> Submittal for signatures | |
| <input type="checkbox"/> For your file | <input type="checkbox"/> Resubmittal for approval | |
| <input type="checkbox"/> For review and comment | <input type="checkbox"/> Returned | |

LETTER OF TRANSMITTAL

DATE: February 19, 2008

ATTENTION: Jason Lytle

RE: Bainbridge WWTP

- | | |
|--|--|
| <input checked="" type="checkbox"/> Mailed | <input type="checkbox"/> To Be Picked Up |
| <input type="checkbox"/> Hand Carried | |
| <input type="checkbox"/> UPS | <input type="checkbox"/> Fed Ex |

Addressee Phone Number: _____

REMARKS:

Jason,

Enclosed you will find my redlined comments.

Call or email me at lthomas@ccgov.org if you have any questions.

Sincerely,

Plans Reviewer
Department of Public Works

cc:

Route to: 1- _____	2- _____
3- _____	4- _____
5- _____	6- _____
File No.: _____	
File Name: _____	

Maryland Stormwater Management Guidelines (July 2001) Table 2

Since the stormwater on site is considered a direct tidal discharge, Channel Protection Volume is not required. The site is also considered redevelopment; therefore, Overbank Flood Protection and Extreme Flood Protection Volume do not apply.

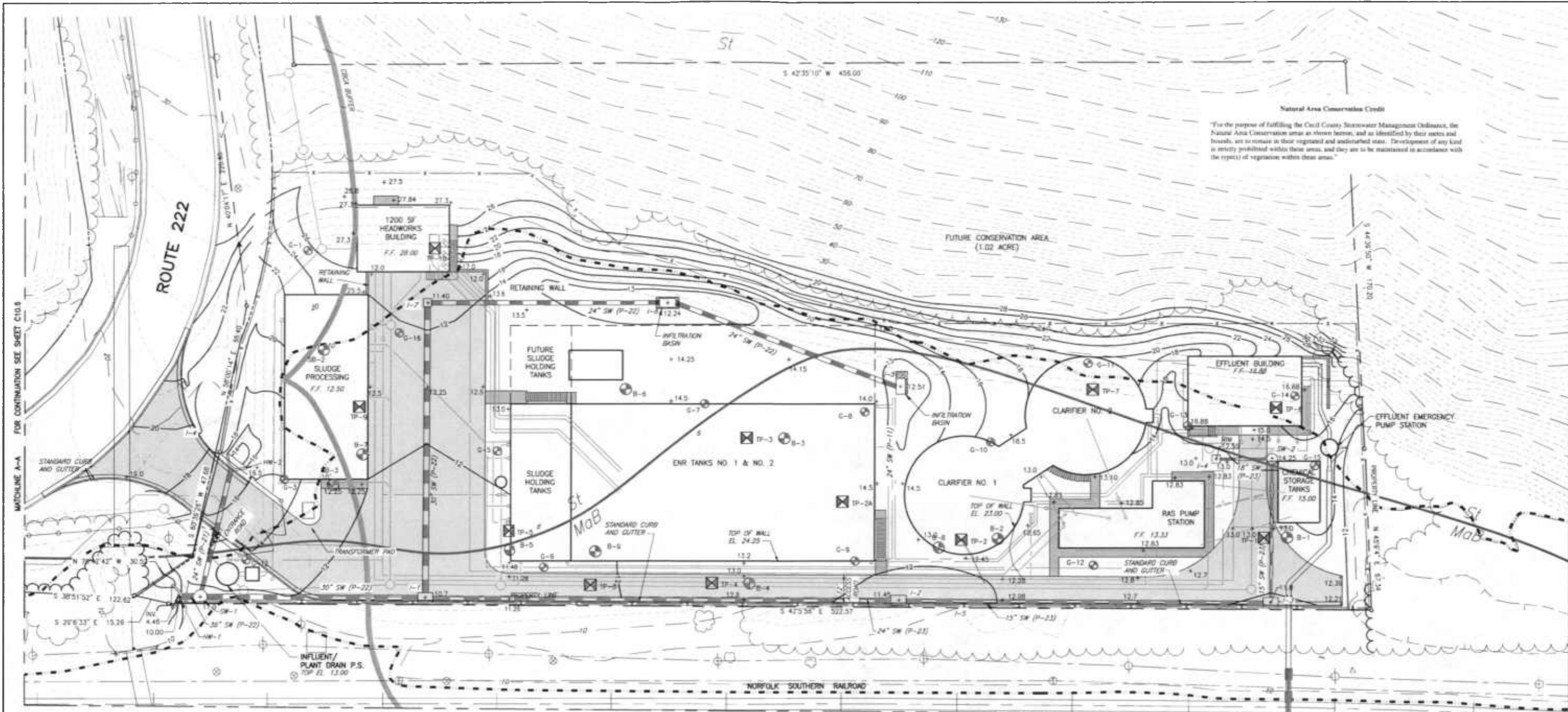
Stormwater Runoff Quality and Recharge Management:

satisfied by direct tidal not redevelopment

Water Quality will be met by utilizing the Natural Conservation Area Credit and Rooftop Disconnect Credit. Approximately 44,431 ft² of the proposed plant site area will become Natural Conservation Area. Approximately 13,068 ft² of the existing WWTP site will become Natural Conservation Area once the current plant is demolished. The existing WWTP demolition is part of the plant construction scope of work and will be performed once the proposed WWTP is operational. The total Natural Conservation Area will become approximately 57,499 ft². Creation of this Natural Conservation Area reduces the water quality requirement by 68.4%.

Rooftop runoff will be directed into the WWTP treatment system. Approximately 7,409 ft² of the site area will be treated by this rooftop disconnect method. Redirecting the rooftop runoff will reduce the water quality requirement by 74.6%. The recharge requirement would also be reduced from 0.013 ac-ft (structural practices), 0.113 ac-ft (non-structural practices) thus creating a recharge requirement of -0.057 ac-ft. Refer to Appendix C for the stormwater sizing and credit criteria calculations.

- phase example how the recharge is being satisfied what structural & non structural practices



Natural Area Conservation Credit
 "For the purpose of fulfilling the Cecil County Stormwater Management Ordinance, the Natural Area Conservation areas as shown herein, and as identified by their meters and bounds, are to remain in their vegetated and undisturbed state. Development of any kind is strictly prohibited within these areas, and they are to be maintained in accordance with the type(s) of vegetation within these areas."

MATCHLINE A-A FOR CONTINUATION SEE SHEET C10.8

MATCHLINE B-B FOR CONTINUATION SEE SHEET C10.5

LEGEND

- EXISTING GROUND
- PROPOSED GRADE
- PROPERTY LINE
- EXISTING TREELINE
- LIMIT OF CLEARING
- SOILS BOUNDARY
- RIGHT-OF-WAY LINE
- 100 YEAR FLOOD PLAN
- CBCA BUFFER
- PROPOSED STORM DRAIN
- BORE AND JACK
- PROPOSED WWTP PIPING
- ⊙ SOIL BORING
- ⊙ TEST PIT
- ⊙ EXISTING UTILITY POLES

NOTES:

1. CONTRACTOR TO PROVIDE ROCK OUTLET PROTECTION AT THE DISCHARGE POINT FOR THE DEWATERING SYSTEM. (LOCATION TO BE DETERMINED IN FIELD)
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT SEDIMENT DISCHARGE FROM THE DEWATERING SYSTEM THROUGH THE USE OF SEDIMENT TRAPS, FILTERS, ETC.
3. CONTRACTOR TO SUBMIT DEWATERING PLAN TO CECIL COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
4. TRENCHING OPERATIONS SHALL INCLUDE STABILIZATION OF DISTURBED AREA AT THE END OF EACH DAY. NO OPEN TRENCHES SHALL BE PERMITTED OVERNIGHT.
5. 100-YR FLOOD ELEVATION 10.65'

SOILS

TYPE
 MaB - MADE LAND (3% - 8% SLOPES)
 St - STONY LAND

HYDROLOGIC SOIL GROUP
 ASSUMED C
 B

STORMWATER PLAN

SCALE 1" = 20'



SHOP DRAWINGS REQUIRED FOR PRIVATE INFRASTRUCTURE

"The contractor shall submit Manufacturer Shop drawings for all components of the private Stormwater Management, Street, Storm Drain, Water, and/or Sanitary Sewer Systems shown herein. The shop drawings must reflect information as follows: Job Name, Component Identification, Project Engineer-of-Record review and approval, and quantity of each item specific to component identification. Provide design calculations for each component. The Engineer-of-Record approved drawings must be sent to Cecil County Department of Public Works, attention Construction Inspection Division, at least (10) ten working days prior to the projected order date of any component. Approved shop drawings must be received by the contractor prior to ordering of components."

NO.	DATE	REVISIONS
1	4/23/08	ADDITION OF INFILTRATION BASINS

**PORT DEPOSIT
 WASTEWATER TREATMENT PLANT
 FOR THE TOWN OF PORT DEPOSIT**

GMB

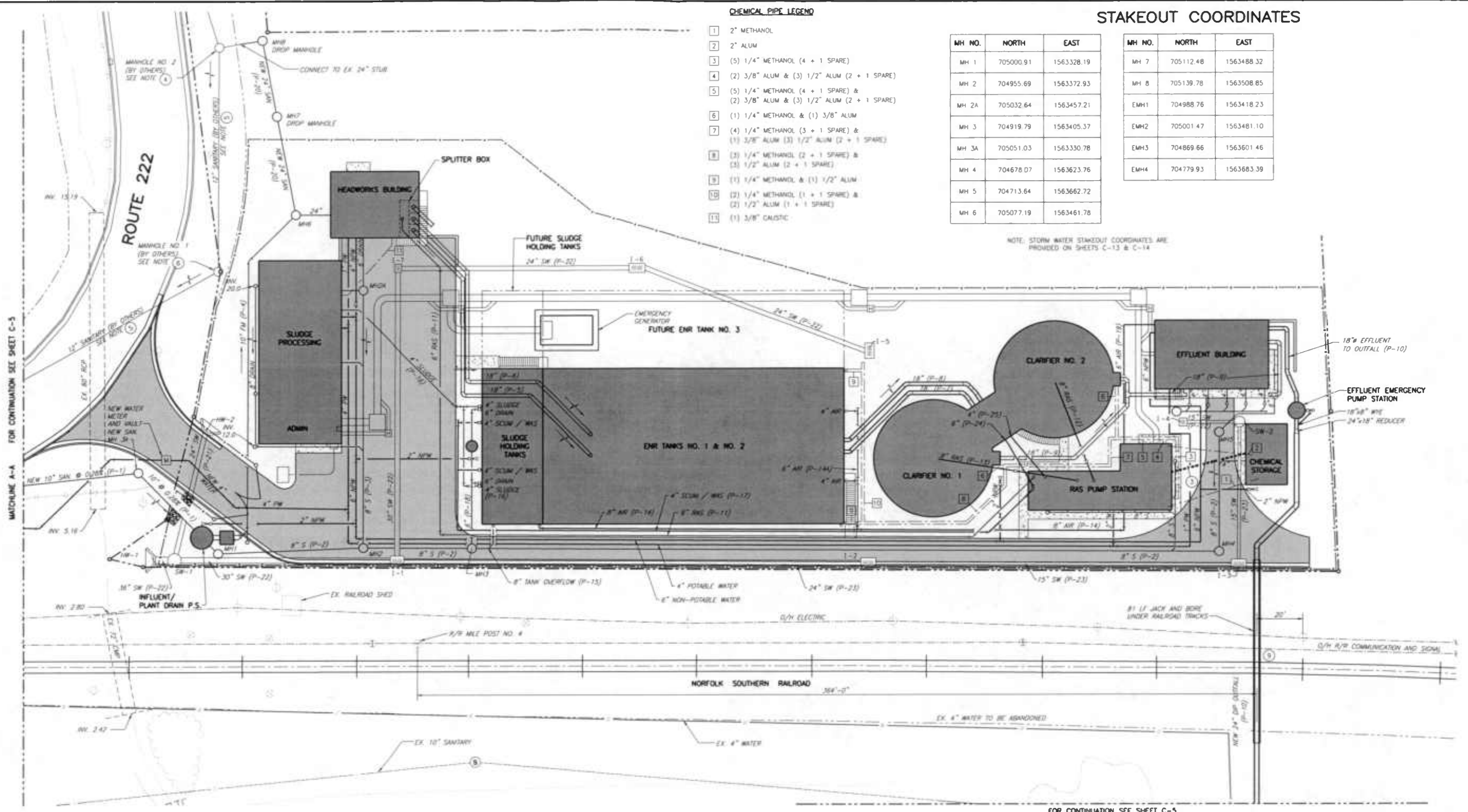
GEORGE, MILES & BUHR, LLC
 ARCHITECTS & ENGINEERS
 SALISBURY • BALTIMORE • LEWIS • SEAFORD • YORK
 www.gmbnet.com

PROPOSED SITE PLAN

DESIGN	RAG	SHEET NO.
DRAWN	BNL	C10.4
CHECKED	JK	
JOB	2003.120	
DATE	JANUARY 2008	DRAWING OF

© COPYRIGHT 2008 GEORGE, MILES & BUHR, LLC

G:\DRAW\1.05\2003\20A_BAHIBRIDGE\CURRENT\SWA\C10.4_R1.dwg, 4/23/2008 3:46:07 P.M., bh



CHEMICAL PIPE LEGEND

- 1 2" METHANOL
- 2 2" ALUM
- 3 (5) 1/4" METHANOL (4 + 1 SPARE)
- 4 (2) 3/8" ALUM & (3) 1/2" ALUM (2 + 1 SPARE)
- 5 (5) 1/4" METHANOL (4 + 1 SPARE) & (2) 3/8" ALUM & (3) 1/2" ALUM (2 + 1 SPARE)
- 6 (1) 1/4" METHANOL & (1) 3/8" ALUM
- 7 (4) 1/4" METHANOL (3 + 1 SPARE) & (1) 3/8" ALUM (3) 1/2" ALUM (2 + 1 SPARE)
- 8 (3) 1/4" METHANOL (2 + 1 SPARE) & (3) 1/2" ALUM (2 + 1 SPARE)
- 9 (1) 1/4" METHANOL & (1) 1/2" ALUM
- 10 (2) 1/4" METHANOL (1 + 1 SPARE) & (2) 1/2" ALUM (1 + 1 SPARE)
- 11 (1) 3/8" CAUSTIC

STAKEOUT COORDINATES

MH NO.	NORTH	EAST
MH 1	705000.91	1563328.19
MH 2	704955.69	1563372.93
MH 2A	705032.64	1563457.21
MH 3	704919.79	1563405.37
MH 3A	705051.03	1563330.78
MH 4	704678.07	1563623.76
MH 5	704713.64	1563662.72
MH 6	705077.19	1563461.78

MH NO.	NORTH	EAST
MH 7	705112.48	1563488.32
MH 8	705139.78	1563508.85
EMH1	704988.76	1563418.23
EMH2	705001.47	1563481.10
EMH3	704869.66	1563601.46
EMH4	704779.93	1563683.39

NOTE: STORM WATER STAKEOUT COORDINATES ARE PROVIDED ON SHEETS C-13 & C-14

SECTION A-A FOR CONTINUATION SEE SHEET C-5

FOR CONTINUATION SEE SHEET C-5

LEGEND

- | | | | |
|-----|-------------------|-----|-------------------------|
| • | FIRE HYDRANT | S | SANITARY |
| • | YARD HYDRANT | GV | GATE VALVE |
| • | CLEANOUT | PV | PLUG VALVE |
| • | VALVE | FH | FIRE HYDRANT |
| PW | POTABLE WATER | WAS | WASTE ACTIVATED SLUDGE |
| NPW | NON-POTABLE WATER | RAS | RETURN ACTIVATED SLUDGE |

CONSTRUCTION NOTES

- 1 ALL WATER LINES AND FORCE MAINS SHALL HAVE A MINIMUM 3'-6" COVER UNLESS NOTED OTHERWISE.
- 2 SEE PIPE PROFILES FOR VERTICAL BENDS NOT SHOWN ON PLAN.
- 3 1-1/2" TEMPERED WATER SUPPLY AND 3/4" TEMPERED WATER RETURN IN INSULATED CARRIER PIPE.
- 4 THE CONTRACTOR SHALL MODIFY THIS MANHOLE TO ROUTE ALL FLOW TO THE NEW MANHOLE NO. 8 PERMANENTLY PLUG DOWNSTREAM 12" SANITARY WITH NON-SHRINK GROUT AND REFORM CHANNEL AS REQUIRED.
- 5 THIS LINE SHALL BE ABANDONED BY THIS CONTRACT.
- 6 REMOVE TOP 3 FEET OF MANHOLE. FILL REMAINDER OF MANHOLE WITH CONCRETE.
- 7 ALL POTABLE WATER LINES LESS THAN 10' AWAY FROM SANITARY LINES SHALL BE CONCRETE ENCASED.
- 8 PROVIDE A SECOND MECHANICAL JOINT CONNECTION WITHIN SIX FEET OF THE STRUCTURAL WALL FOR ALL PIPES ENTERING OR LEAVING A STRUCTURE. SEE DETAIL SHEET C-5.
- 9 ANY WORK OR ACCESS TO THE RAILROAD PROPERTY SHALL BE COORDINATED WITH NORFOLK SOUTHERN RAILROAD.

PROPOSED PIPING PLAN
SCALE 1" = 20'

NO.	DATE	REVISIONS
1	7/18/08	BID SET

PORT DEPOSIT WASTEWATER TREATMENT PLANT
FOR THE PORT DEPOSIT WATER AND SEWER AUTHORITY
CECIL COUNTY, MARYLAND



PROPOSED PIPING PLAN

DESIGN	JEB	SHEET NO.	C-4
DRAWN	BNL		
CHECKED	JK		
JOB	2003.120B		
DATE	JUNE, 2007		
		DRAWING	9 OF 124

Environmental Assessment

The installation of utilities will impact portions of the Chesapeake Bay Critical Area. The impacts will occur EA and RCA stream lands. Wetlands, streams, buffers, slopes, 100 year floodplain, and soils are provided on the plans.

The Chesapeake Bay Critical Area program identifies Habitat Protection Areas that must be considered during the development of a property. As part of the assessment of the development proposal, each factor has been identified and the potential impacts highlighted:

100 Foot Buffer

The CBCA regulates a 100 foot buffer from all stream limits. Appropriate sediment and erosion control will be utilized during development of the site to replace the function of the reduced buffer during construction.

25 Foot Riparian Wetland Buffer

The State regulates a 25 foot buffer from the wetland limits.

Rare, Threatened or Endangered Species

Endangered Species means any species of plant or animal that has been designated as such by regulations by the Secretary of the Maryland Department of Natural Resources, or which has been determined to be "endangered" species pursuant to the Federal Endangered Species Act, U.S.C. Subsection 1531 (b) (5), and which inhabits the State of Maryland during some part of its life cycle.

Threatened Species means any species of plant or animal designated as such by regulation by the Secretary of the Department of Natural Resources, or which has been determined to be a "threatened" species pursuant to the Federal Endangered Species Act, cited above.)

Species in Need of Conservation means any species of plant or animal that has been designated as such by regulation by the Secretary of the Department of Natural Resources pursuant to Natural Resources Article, Subsection 10-2A-03 and 4-2A-03, Annotated Code of Maryland.

Natural Heritage Area means any communities of plants or animals that are considered to be among the best statewide examples of their kind, and are designated by regulation by the Secretary of the Department of Natural Resources.

A letter has been forwarded to the Maryland Department of Natural Resources to determine the status of any known or potential RTE species populations on or adjacent to the site. No habitats of RTE species were observed within the proposed Limits of Disturbance.

Riparian Forest/Interior Dwelling Bird Habitat

Forest Interior Dwelling Birds means the species of birds identified by the Maryland Forest, Park, and Wildlife Service that require relatively large forested tracts in order to breed successfully such as various species of flycatchers, warblers, vireos, and woodpeckers.

In Maryland, studies have indicated that areas of 100 acres or larger are usually necessary to support viable populations of forest interior dwelling birds (Bushman and Thomas 1988).

MD DNR has identified the forested slopes adjacent to the project area as providing forest interior habitat. Given that the proposed development will impact only limited forest along the road edge, no impact to interior habitat will result.

Colonial Nesting Waterbird Nesting Site

Colonial Nesting Water Birds means herons, egrets, terns, and/or glossy ibis, which for purposes of nesting, congregate (that is "colonize") in relatively few areas, at which time the regional populations of these species are highly susceptible to local disturbances.

The State of Maryland has been monitoring the nesting sites of colonial water birds since 1984 (Danes 1984).

The proposed project will not impact colonial nesting waterbird habitat.

Historic Waterfowl Staging Areas

Wintering and Migrating Waterfowl Habitat means an area of open water and land where adjacent fowl gather during migration and throughout the winter season. These areas are said to be "historic" in the sense that their location is common knowledge and because these areas have been used regularly during recent times.

The proposed project will not impact colonial historic waterfowl staging areas

Anadromous Fish Propagation Waters

Anadromous fish means fish that travel upstream (from their primary habitat in the ocean) to fresh waters in order to spawn.

The identification of fish spawning areas was performed by the MD Department of Natural Resources between 1970-1978 (O'Dell, et al. 1978). Additional work was performed by the Natural Resources Institute for the University of Maryland (Lippson 1973). The Department of Natural Resources maintains ongoing sampling of State waters to monitor anadromous fish spawning activity.

Anadromous fish spawning habitat requires continuous surface waters connected to tidal water.

Mitigation Calculation

Proposed permanent buffer impacts and forest clearing = 67,290 sq.ft.

Proposed mitigation ratio = 1- 2" caliper tree and 3 - 2-3" shrubs/400 sq.ft. of obligation

Proposed mitigation requirement = 143 - 2" caliper trees and 429 - 2-3" shrubs

Proposed Mitigation Cost =

143 2" caliper trees @ \$300/tree =	\$ 42,900.00
429 2-3" shrubs @ \$40/shrub =	\$ 17,160.00
Total Planting cost	\$ 60,060.00

Mitigation Cost Breakdown:

Sewer Interceptor-	\$ 7,078.36
WWTP -	\$ 52,981.64

**BAINBRIDGE OFFSITE UTILITIES
CBCA Disturbance Chart**

Impact Area	Total Disturbance Area	Forest Clearing	Stream Buffer Impacts
Manholes 1 & 2 Sheet ES 2	6,700 sq.ft.	2,250 sq.ft.	6,700 sq.ft. *
Manhole 3 Sheet ES 3	3,790 sq.ft.	0 sq.ft.	3,790 sq.ft. *
Manhole 4 Sheet ES 3 & 4	2,790 sq.ft.	0 sq.ft.	2,790 sq.ft. *
Waste Water Treatment Plant (new facility)	67,200 sq.ft.	13,580 sq.ft.	12,320 sq.ft.
Waste Water Treatment Plant (removal of ex. facility)	16,800 sq.ft.	0 sq.ft.	11,790 sq.ft. **
TOTAL	119,270 sq.ft.	15,830 sq.ft.	35,379 sq.ft.

* temporary impacts to buffers, area not included in mitigation requirement
** removal of structures and impervious surface from within buffer, area to be vegetatively stabilized. This impact not included in mitigation requirement.

Base Map Note:

The CBCA findings information is presented on the Sediment and Erosion Control plans for the Sewer Interceptor and the Water Water Treatment Plant prepared by George Miles & Buhr, LLC.

CBCA Notes

1. The redevelopment of the Bainbridge NTC property requires improvement/upgrade of offsite utilities. Work proposed as part of this phase of the development includes construction of a new sewer interceptor along 222 and upgrade/relocation of the existing Waste Water Treatment Plant. Some of this work will occur within the Chesapeake Bay Critical Area.

The sewer line right of way has been located to minimize resource impacts while facilitating reasonable installation. The right of way will be located along and within the Route 222 right of way. The sewer line will be installed using jack and bore techniques to minimize direct impacts. Boring pits will be constructed at manhole locations.

The upgrade/relocation of the existing Waste Water Treatment Plant will improve the conditions within Critical Area by moving the Plant further from the resource. The existing facility and associated impervious surfaces will be removed as part of the project.

2. The MD DNR has determined that the forested slopes adjacent to the sewer line right of way are provide Forest Interior Dwelling Bird habitat.

3. The proposed utility installation and replacement of the Waste Water Treatment Plant will result in a total disturbance to 119,270 sq.ft. within the Critical Area. A breakdown of the disturbance is included in the CBCA Disturbance Chart, a discussion of the impacts and the mitigation proposal is as follows:

Sewer Interceptor Impacts

Impacts to the stream buffer associated with the sewer line will be temporary and all disturbed areas will be stabilized and seeded post installation. The project requires 2,250 sq.ft. of reforestation to offset the forest clearing required for installation of the sewer interceptor.

Waste Water Treatment Plant - New Facility

Impacts required to construct the new facility include 12,320 sq.ft. of stream buffer and 13,580 sq.ft. of forest clearing. The forest to be cleared does not provide forest interior habitat.

Waste Water Treatment Plant - Removal of Existing Facility

The removal of the existing Waste Water Treatment Facility will result in impacts to 11,790 sq.ft. of stream buffer. These impacts are required to remove existing facilities and impervious surfaces within the buffer.

Mitigation Requirements/Proposal

The mitigation for the offsite utilities within the Chesapeake Bay Critical Area will include requirements for reforestation of forest cleared and mitigation for impacts to the stream buffer. The total mitigation obligation for the project is 67,290 sq.ft. This obligation includes:

Sewer Line/Interceptor:	6,570 sq.ft.
100 foot buffer (3:1) replacement:	36,960 sq.ft.
FIDS mitigation:	13,580 sq.ft.

The application will fulfill this mitigation obligation through a contribution of \$60,060.00 to the Town of Port Deposit to be used to landscape Marine Park. The landscaping will be performed within and adjacent to the stream buffer in the Critical Area.

Project Information:

- CBCA Designation: IDA/RCA
- Proposed Use - sewer interceptor, waste water treatment plant
- Impervious Surface - Proposed WWTP site - existing: 0.025 acres, proposed: 1.068 acres
Existing WWTP site - existing: 0.3 acres, proposed: 0 acres
- Pollutant Removal Requirements
Total phosphorus removal required: 1.50 lbs/yr total phosphorus
Total phosphorus removal proposed: 1.51 lbs/yr total phosphorus
- Existing Forest - Sewer Interceptor: 2,250 sq.ft.
WWTP: 66,400 sq.ft.
- Proposed Forest Clearing - Sewer Interceptor: 2,250 sq.ft.
WWTP: 13,580 sq.ft.
- Proposed Reforestation: 28,160 sq.ft. obligation to be met in accordance with the Mitigation Proposal

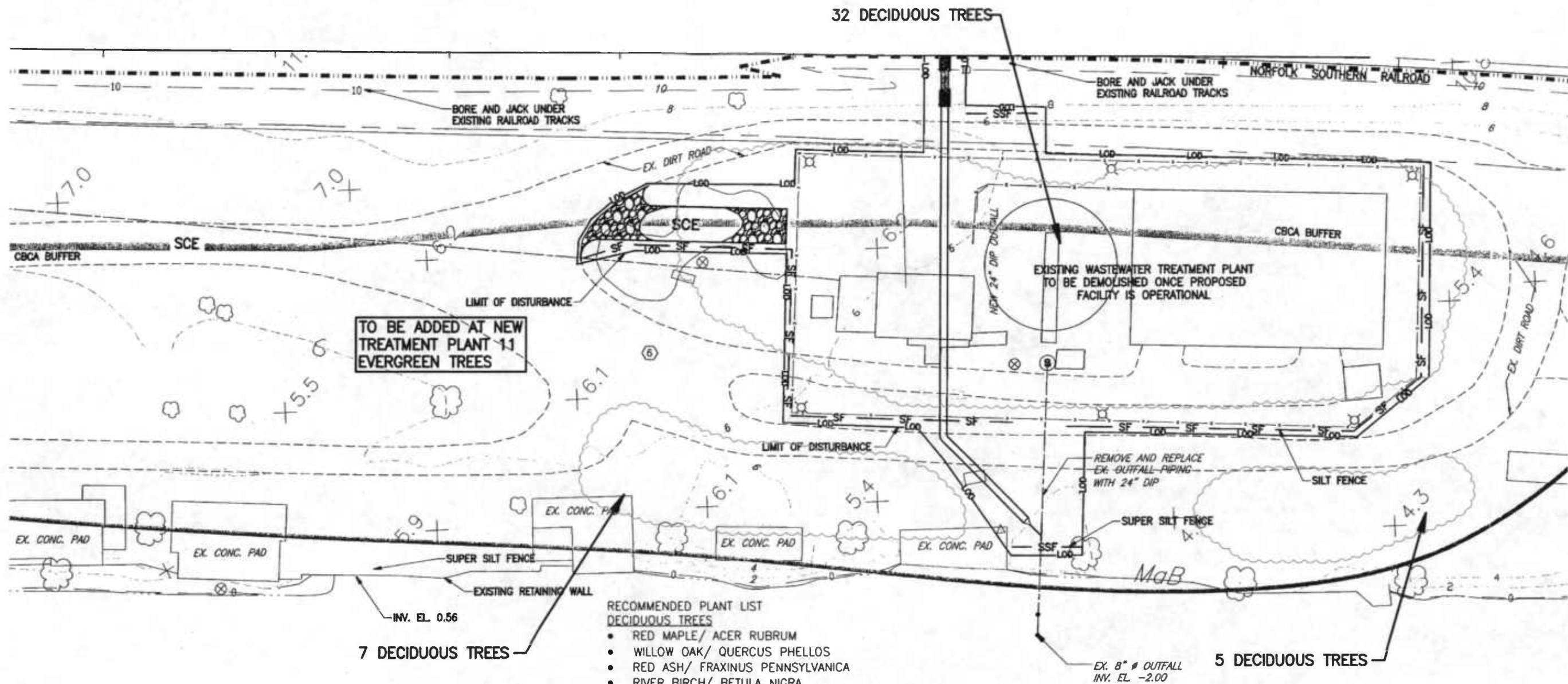
NO.	REVISIONS	DATE
1	APPROVED FOR DEPOSIT LAYOUT	1/1/2011
2	REVISED FOR DEPOSIT LAYOUT	1/1/2011

GEMB
GEORGE, MILES & BUHR, LLC
ARCHITECTS & ENGINEERS
INCORPORATED - 1998 - 503000 - 100K
www.gembnet.com

Chesapeake Bay Critical Areas Findings Plan-
Port Deposit Waste Water Treatment Plant Project &
Bainbridge Sewer Interceptor Project

FOR THE PORT DEPOSIT WATER & SEWER AUTHORITY
PORT DEPOSIT, MARYLAND





- RECOMMENDED PLANT LIST**
- DECIDUOUS TREES**
- RED MAPLE/ ACER RUBRUM
 - WILLOW OAK/ QUERCUS PHELLOS
 - RED ASH/ FRAXINUS PENNSYLVANICA
 - RIVER BIRCH/ BETULA NIGRA
 - HACKBERRY/ CELTIS OCCIDENTALIS
 - TULIPTREE/ LIRIODENDRON TULIFERA
 - WHITE OAK/ QUERCUS ALBA
 - RED OAK/ QUERCUS BOREALIS
- DECIDUOUS UNDERSTORY TREES**
- EASTERN REDBUD/ CERCIS CANADENSIS
 - DOWNY SHADBLOW/ AMELANCHIER CANADENSIS
 - SWEETBAY MAGNOLIA/ MAGNOLIA VIRGINIANA
- EVERGREEN TREES**
- EASTERN RED CEDAR/ JUNIPERUS VIRGINIANA
 - AMERICAN HOLLY/ ILEX OPERA

SUSQUEHANNA RIVER

Notes

1. AREAS SHOWN FOR PROPOSED MITIGATION ARE APPROXIMATE. ACTUAL PLANT LOCATIONS MAY VARY BASED ON SITE CONDITIONS.
2. TREES ARE TO BE PLANTED AFTER SITE HAS BEEN DEMOLISHED AND FINAL GRADING HAS BEEN COMPLETED.
3. ALL TREES TO BE MINIMUM 2" CALIPER.

APRIL 24, 2006
174810397

Client/Project
**TOWN OF PORT DEPOSIT
BAINBRIDGE WASTEWATER TREATMENT
PLANT AND ROUTE 22 SEWER**

Figure No.
2.0

Title
MITIGATION PLAN

Stantec Consulting Services Inc.

800 Delaware Avenue, Suite 610
Wilmington, DE 19801.1365
Tel. 302.426.1840
Fax. 302.426.1847
www.stantec.com



Stantec

