Appendix L

Virginia Subaqueous Minerals Management Plan
Chesapeake Bay Bridge Tunnel
Wind Turbine

Preliminary Interconnection Feasibility Report

Prepared for:
James Madison University
Virginia Department of Mines, Minerals and Energy
Timmons Group
In Cooperation with
The Chesapeake Bay Bridge Tunnel Commission

Prepared By:
Utility Professional Services, Inc

May 4, 2012
Chesapeake Bay Bridge Tunnel – Wind Turbine Preliminary Interconnect Feasibility Study

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Chesapeake Bay Bridge Tunnel – Wind Turbine
Preliminary Interconnect Feasibility Study

**Description & Scope of the Study**

- Perform a preliminary site assessment of the Chesapeake Bay Bridge Tunnel (CBBT) area and identify any and all existing aerial and underground Dominion Virginia Power facilities that provide service.

- Determine the feasibility paths for cable from the turbine structure and assess multiple delivery points for a 6 MW load/output and where inter-connect switch may be needed.

- Provide a conceptual layout and electrical equipment configuration for each associated cable route.

- Provide an analysis and conceptual budget review summary for all relevant cable requirements and any new costs for cable extensions.

- Coordinate with Chesapeake Bay Bridge personnel about facility, electrical capacity, best delivery points and any other utility impacts.

**Alternative A**
For all CBBT Facilities

- A-1: From Turbine to load bank at 4th Island (Phase 1 potentially)
- A-2: From turbine to the point on CBBT facilities (Island 1, Island 2, or sub-station near South Toll Plaza) that will allow back-feeding on existing infrastructure (Phase 2 potentially)
- A-3: From Turbine directly to substation at South Toll Plaza
- A-4: Appropriate combination(s) of A-1, A-2, or A-3 that is / are most pragmatic / practicable

**Alternative B**
Fort Story landfall

The attached sketches for Alternative B to Fort Story would avoid laying cable beneath any dredged channels. By following the dotted green path route shown on the attached nautical charts and taking a wide arc passing just east of the G “3” and R “4” buoys that mark the southern entrance of the Cape Henry Channel, but make sure we stay inside the Territorial Sea Limit.
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Joins page 4
Executive Summary

Dominion Virginia Power is supplying two (2) separate 34.5 KV three-phase overhead circuits that adequately feed the Chesapeake Bay Bridge Tunnel (CBBT) at the present time. The two (2) circuits currently feed the CBBT owned substation by the South Toll Plaza. This substation is the original substation from 1964 and is scheduled to be completely replaced in the 2021/2022 timeframe by CBBT. The replacement site is next to the existing substation.

The original thought for this project was to install the turbine to the east of Island #4 approximately 12,500 feet away; bring the cable onto Island #4 and connect it to the existing ventilation building; add an inter-connect switch; then back-feed the excess power, if any was available, through the existing CBBT cables attached to the bridge structure and selling that excess to Dominion Virginia Power. Once we visited the CBBT site and talked to them, a few logistical issues arose.

Two (2) items came up to make the original thinking, we believe, to be cost prohibitive. The first is the cable conduit is mis-aligned from Island #4 to Island #1. Back-feeding cable through these conduits can not be done, according to the CBBT personnel. They have tried it in the past and were unsuccessful. The second, and probably the most important, is that the existing equipment: step-down transformer, switches and relays from Island #4 back to the substation would have to be replaced or updated to back-feed power. This could be very costly and time consuming, taking one to two years to have the equipment produced.

We presently have five cable route options on the table: Alternative A1 - Turbine to Island #4; Alternative A2 - Turbine to Island #1; Alternative A3 - Turbine to CBBT substation; Alternative A4 - Turbine to Island #4 & Island #1; Alternative B1 - Turbine to Fort Story. Of the five alternatives, Alternative A3 & B1 are the most logical and least problematic. The trenching costs will only vary due to the proximity to the shipping channel, time of the year restrictions and the safety of shipping traffic.

Without looking at the trenching costs, the most practical solution would be to run the cable from the turbine to the CBBT substation. This bypasses three problem areas:

1. The replacing of equipment in the 4 ventilation rooms, i.e., 1 step-down transformer, switches, relays and cable, that need to be done if Alternative A1 is chosen. You can not bring the cable up onto Island #4, install an inter-connect switch and back-feed power to the substation without changing this equipment configuration. The cost is estimated to be $1 million dollars.
2. Adding #4/0 aluminum cable in a new cable tray from Island #4 to Island #1 would need to be done to make Alternative A1 complete. The estimated cost is $3.4 million dollars.
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3. Installing an additional modular building to house the load bank & inter-connect switch on Island #4 and strapping it down to hurricane force wind standards.

Installing the new cable and inter-connect switch at the CBBT substation would be the most practical solution. First, a modular building could be installed at the existing substation, near the new proposed substation location that will be built in 2021/2022, to house the load grid and inter-connect switch (see page 11 for diagram of installation). This will allow a short run for installing the inter-connect switch, which Dominion Virginia Power has to approve, ahead of Dominion Virginia Power’s grid and would not bring about a major change when the new substation is installed. This location should also shorten the time for Dominion Virginia Power’s study. Since there are two (2) circuits with 34.5 KV power already onsite, there should be very few, if any, changes or upgrades that Dominion Virginia Power would have to make to their system to accommodate “net-metering”. Since this turbine has an output rating of 6 MW of power, Dominion Virginia Power’s Schedule 19 Tariff will allow up to 20 MW of power to be “net-metered” back to them. After the study is done by Dominion Virginia Power, a PJM Application can be completed to sell back the additional power.
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### Executive Cost Summary Matrix

<table>
<thead>
<tr>
<th>Cable Alternative A &amp; B</th>
<th>Location</th>
<th>*Distance &amp; Cable Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative A2</td>
<td>Turbine to Island #1</td>
<td>46,250’ feet of #1,000kcmil Al plus trenching, equipment &amp; cable tray costs</td>
<td>***$8,112,000</td>
</tr>
<tr>
<td>Alternative A3</td>
<td>Turbine to CBBT Substation</td>
<td>72,500’ feet of #1,000kcmil Al plus trenching &amp; boring</td>
<td>**$5,520,000</td>
</tr>
<tr>
<td>Alternative B1</td>
<td>Turbine to Fort Story</td>
<td>56,000’ feet of #1,000kcmil Al to shoreline, 1,000’ of trenching/bore onshore</td>
<td>**$5,638,000</td>
</tr>
</tbody>
</table>

* Assume all wire is Aluminum  
**Cost includes: wire & mat’l costs for splicing of 4 conductors, trenching/permit costs for installing cable.  
***Includes upgrading costs of equipment, i.e., Step-down transformer, switches, relays and cable trays in the 4 Ventilation Rooms at CBBT.  
Alternative A1 not used due to high cost of trenching, cable, upgrading of equipment and cable tray to the 4 Ventilation rooms. Estimated cost is $5.4 million dollars.  
Alternative A4 not used due to additional cable costs, trenching, upgrading of equipment to the 4 Ventilation rooms. Estimated cost is $5.1 million dollars.  
Cost do not include Modular building, interconnect switch, Load bank and other equipment for “Net Metering” back to the power company.

Location of proposed wind turbine is approximately 12,500’ feet east of Island #4.

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**Utility Professional Services, Inc.**
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**Recommendations**

1. UtilityPros strongly recommends trenching and installing a new 1,000kcmil (1,000 circular mils) aluminum cable from the proposed 6 MW Turbine location east of CBBT’s Island #4 to CBBT’s existing Substation near the South Toll Plaza; installing a modular building to house the load grid and the Inter-connect switch next to the new proposed CBBT substation to be installed in the 2021/2022 timeframe.

2. UtilityPros is not representing or guaranteeing that any utility will accept or consider any relocation request. Utilities may refuse to relocate for operational reasons, including, but not limited to, the inability to secure needed easements or permits, or having a piece of equipment for which they have no underground or offsite relocation solution.

3. All costs are in today’s dollars as of the date of the report.
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Challenges & Issues at Risk

The first challenge will be from the Federal, State and possible the local area environmental permits. This will require the Army Corps of Engineers and the Virginia Marine Resource Commission to become involved. The local government, approval from the City of Virginia Beach, may also be necessary. If it is trenched in along the roadway, they will want to oversee this process. If the onshore portion is directional bored, they may not.

The second challenge we’ll have is with Dominion Virginia Power and PJM. Dominion Virginia Power has the exclusive rights to provide any power to Virginia & Maryland through the State Corporation Commission. Under the present tariff, an individual can produce its own power and sell back the excess to Dominion Virginia Power. The State can own the turbine and sell the excess power back to Dominion Virginia Power, but an individual company can not produce the power, supply it to someone, such as CBBT, and then sell the excess back to Dominion Virginia Power. In order to do this they would have to form a Coop Power Company and get certified through the State Corporation Commission.

Before Dominion Virginia Power approves “net-metering”, they would need to do a 60-90 day study to determine where an inter-connect switch would be positioned and if changes or upgrades to their system would need to be done to except the load onto their grid. Once the study is completed, then an application with PJM is started.

The third challenge is the future work that will be done to the CBBT from 2021 through 2040. The present power system was installed in 1964. The conduits from Island #4 to Island #1 have mismatched alignment problems and can not be used to pull new cables back through them. CBBT would like to add another 4/0 feed from Island #4 to Island #1 for better back-feed possibilities. CBBT will be adding a new substation, next to the present substation, in the 2021/2022 timeframe. They will also add additional tunnels in the 2040 timeframe. If the inter-connect switch is installed at the Island #4 ventilation room and power is back fed to the Dominion Virginia Power’s grid, CBBT would have to replace a step-down transformer, cable, switchgear and relays at each ventilation room. For this study, we have not looked at these costs to replace.

Installing submarine cable from the wind turbine to Fort Story by taking a wide arc passing just east of the G “3” and R “4” buoys that mark the southern entrance of the Cape Henry Channel, while staying inside the Territorial Sea Limit so that it doesn’t wander into federal waters, presents two (2) areas of concern. The first is where would the cable come ashore at Fort Story and the second is where the cable would connect to the Dominion Virginia Power grid. Another additional concern is what type of agreement or permit the Federal Government would require to encroach onto Fort Story.
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Appendix
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Virginia Electric and Power Company

Schedule 19
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

I. APPLICABILITY & AVAILABILITY

This Schedule is applicable to any Cogenerator or Small Power Producer (Qualifying Facility), as defined in the Public Utility Regulatory Policies Act of 1978 (PURPA), which desires to provide all or part of its electrical output to the Company on an energy and capacity or on an energy only basis, and which has a net capacity of 20,000 kW or less, and enters into an agreement for the sale of electrical output to Virginia Electric and Power Company (Agreement).

No developer, or any affiliate of a developer, shall be permitted to locate a Schedule 19 facility within one-half mile of any other Schedule 19 facility owned or operated by such developer or any affiliate of such developer unless:

a. Such facilities provide thermal energy to different, unaffiliated hosts; or
b. Such facilities provide thermal energy to the same host, and the host has multiple operations with distinctly different or separate thermal needs; or
c. Such facilities utilize a renewable resource that may be subject to geographic siting limitations, such as hydroelectric, solar or wind power facilities.

This Schedule is available to a Qualifying Facility (QF) which enters into an Agreement with the Company during the effective period of this Schedule, and which achieves Commercial Operation in accordance with the provisions of its Agreement (Commercial Operations) on or after January 1, 2006.

II. MONTHLY BILLING TO THE QF

The provision of Electric Service from the Company to the QF will be in accordance with any applicable filed rate schedule. A QF that elects to sell electrical output from its generation facility will be billed a monthly charge as follows to cover the cost of meter reading and processing:

1. For QFs requiring only one non-time differentiated meter: $5.56.
2. For QFs requiring only one time differentiated meter: $65.09.
3. For QFs requiring two time differentiated meters: $102.62.

(Continued)
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POWER PURCHASES FROM
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(Continued)

III. CONTRACT OPTIONS

QFs with a net capacity of 10 kW or less shall elect, from the following two options, the manner in which the QF shall operate and provide its electrical output to the Company. This election shall be contracted for and made a part of the QF’s Agreement. QFs with a net capacity greater than 10 kW but less than or equal to 20,000 kW must contract for the supply of both energy and capacity to the Company, in accordance with Paragraph III. A., below. Purchase payments, if any, to the QF for the supply of energy and/or capacity to the Company shall be based on this contractual designation.

A. Supply of Energy and Capacity: A QF shall contract for the supply of both energy and capacity to the Company, except as may be permitted pursuant to Paragraph III. B., below. The level of capacity that the QF contracts for shall not exceed 20,000 kW. The supply of both energy and capacity shall require the installation of one (or two, if necessary) time differentiated meter(s) to measure the hourly output of the QF’s generation facility.

B. Supply of Energy Only: A QF with a net capacity of 10 kW or less may elect to contract for the supply of only energy to the Company. A QF electing this option will not be eligible for capacity payments. Election of this option shall require the installation of a non-time differentiated meter to measure the monthly output of the QF’s generation facility.

IV. PAYMENT FOR COMPANY PURCHASES OF ENERGY AND CAPACITY

A. QF that supplies both energy and capacity to the Company, in accordance with Paragraph III. A., above, shall receive purchase payments as follows:

A. Energy Purchase Payments

1. Purchase payments for the supply of energy by the QF to the Company will be based on an hourly energy purchase price (cents per kWh) that is calculated using the hourly $/MWh PJM Interconnection, LLC (PJM) Dom Zone Day Ahead Locational Marginal Price (DA LMP) divided by 10, and multiplied by the hourly net generation as recorded on the Company’s time differentiated meter.

(Continued)
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(Continued)

IV. PAYMENT FOR COMPANY PURCHASES OF ENERGY AND CAPACITY
(Continued)

2. All energy purchase prices per kWh will be increased by 2.8% to account for line losses avoided by the Company. This line loss percentage will be fixed for the term of the contract between the QF and the Company.

3. In lieu of the line loss percentage in Paragraph IV. A.2., a QF may request that the percentage be derived by a line loss study calculated to the location the QF interconnects with the Company. To receive this site specific line loss percentage, the QF must be willing to bear the cost of such a study.

B. Capacity Purchase Payments

Purchase payments for the supply of capacity by the QF to the Company will be made based upon the QF’s daily net on-peak generation multiplied by that corresponding day’s on-peak capacity purchase price, as calculated, below. If applicable, the purchase payment for capacity may be modified by application of the Summer Peak Performance Factor (SPPF), as described, below. The on-peak hours for every day are from 7 AM to 11 PM. Off-peak hours are defined as all other hours.

Beginning June 1, 2007, and for each June 1, thereafter, PJM will establish the Reliability Pricing Model capacity resource clearing price for each PJM zone, shown as a $/MW/day price, that will be applicable through the following May 31. Such prices will be the clearing results from PJM’s Base Residual Auction. Using the price for the Dom Zone (initially identified on the PJM website as “Dom_PZonal”), the Company will calculate an on-peak capacity purchase price (cents per kWh) for each day by dividing the Dom Zone $/MW/day price by 16 hours, and further dividing the result by 10, rounded to the nearest one-thousandth cent. The resulting cents per kWh on-peak capacity purchase price will be applied to the QF’s net on-peak generation for the corresponding day, to provide for the daily capacity purchase amount. The sum of the daily capacity purchase amounts for the billing month will constitute the monthly capacity purchase payment to the QF, unless modified by application of the SPPF, below.

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(Continued)

IV. PAYMENT FOR COMPANY PURCHASES OF ENERGY AND CAPACITY
(Continued)

Initially, a QF’s SPPF will be 1. Once a QF has achieved Commercial Operations
and such operation encompasses at least a full Summer (defined by PJM as June 1
through September 30, inclusive), the following January billing month, and for
each January billing month thereafter, an SPPF will be calculated that is based on
the QF’s operation during the five (5) PJM coincident peak hours (“CP Hours”),
as posted by PJM, during the Summer of the previous calendar year. The QF’s
SPPF is equal to the number of CP Hours in which the QF generated at or greater
than 75% of its net capacity, divided by 5. Therefore, the SPPF could be 0, .2, .4,
.6, .8, or 1. The QF’s SPPF will be applied to the monthly capacity purchase
payment for each billing month of the current calendar year.

V. PAYMENT OF COMPANY PURCHASES OF ENERGY ONLY

A QF that supplies only energy to the Company, in accordance with its election in
Paragraph III. B., above, shall receive purchase payments as follows:

A. Purchase payments for the supply of only energy by the QF to the Company will
be based on an energy purchase price (cents per kWh) that is calculated using the
average of the hourly $/MWh Dom Zone DA LMP for the QF’s billing month
divided by 10, and multiplied by the net generation as recorded on the Company’s
non-time differentiated meter.

B. All energy purchase prices per kWh will be increased by 2.8% to account for line
losses avoided by the Company. This line loss percentage will be fixed for the
term of the contract between the QF and the Company.

C. In lieu of the line loss percentage in Paragraph V. B., a QF may request that the
percentage be derived by a line loss study calculated to the location the QF
interconnects with the Company. To receive this site specific line loss percentage,
the QF must be willing to bear the cost of such a study.

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POWER PURCHASES FROM  
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QUALIFYING FACILITIES  

(Continued)

VI. PROVISIONS FOR COMPANY PURCHASE OF THE QF GENERATION

A. The QF shall own and be fully responsible for the costs and performance of the QF's:

1. Generating facility in accordance with all applicable laws and governmental agencies having jurisdiction;

2. Control and protective devices as required by the Company on the QF's side of the meter.

B. The Company shall own and install any interconnection facilities on the Company side of the meter required for the QF to sell energy to the Company. The costs associated with these facilities will be borne by the QF. These costs include, but are not limited to, the costs of connection, switching, metering, transmission, distribution, safety provisions, telephone lines, and administrative costs incurred by the Company which are directly related to the installation and maintenance of the facilities necessary to permit interconnected operations with the QF. The QF shall pay for these interconnection costs by either of the following methods:

1. A one-time lump-sum payment equal to the estimated new installed cost of all interconnection facilities provided by the Company multiplied by the appropriate tax effect recovery factor (if applicable), plus the appropriate monthly charge as described in Section IV.E. of the Company's Terms and Conditions on file with the Virginia State Corporation Commission.

2. A continuous monthly charge as described in Section IV.E. of the Company's Terms and Conditions on file with the Virginia State Corporation Commission which is designed to recover over time the estimated new installed cost of all interconnection facilities and their related operating expenses.

The QF will also be responsible for payment to the Company for the cost of removing the interconnection facilities at the conclusion of the QF's Agreement. Payment for these costs shall be in the same manner as the Company charges its other customers for similar work.

(Continued)
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QUALIFYING FACILITIES

(Continued)

VI. PROVISIONS FOR COMPANY PURCHASE OF THE QF GENERATION (Continued)

C. In addition to the costs in Paragraph VI.B., above, the actual costs associated with relocating and/or rearranging existing facilities to allow interconnected operation will also be borne by the QF. A monthly charge shall not apply to these costs. Payment for these costs shall be in the same manner as the Company charges its other customers for similar work.

D. The QF shall have equipment specifications and plans for control devices interconnection facilities, and protective devices approved by the Company in advance of energizing the facility.

E. The relays and protective equipment shall be subject, at all reasonable times, to inspection by the Company's authorized representative.

F. Upon request by the Company, the Cogenerator or Small Power Producer must demonstrate that the facility is a Qualifying Facility as defined by PURPA.

G. The Company shall have the right to reduce the energy received from a QF during periods when a minimum load condition exists on the Company's system. These reductions will be within the design limits of each QF's equipment and will be limited to 1,000 off-peak hours in any calendar year.

VII. MODIFICATION OF RATES AND OTHER PROVISIONS HEREUNDER

The provisions of this schedule, including the rates for purchase of electricity by the Company, are subject to modification at any time in the manner prescribed by law, and when so modified, shall supersede the rates and provisions hereof. However, payments to QFs with contracts for a specified term at payments established at the time the obligation is incurred shall remain at the payment levels established in their contract.

VIII. TERM OF CONTRACT

The term of contract shall be mutually agreed upon, but not less than one year.
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Chesapeake Bay Bridge Tunnel 16 Questions
Regarding the Wind Energy Interconnection

1. What size is the cable bringing power from the structure to Island 4?
   Answer: Wire size to transmit the power at 13.2KV from the tower to shore is a #1,000kcmil aluminum wire. The size of the wire was chosen to effectively carry 260amps at 13.2KV for 12,500ft. This number was based off of direct buried three conductor cable with a voltage drop of 3%. The size of wire may change based on the selected manufactures cable specifications.

2. What is the weight of the cable per foot?
   Answer: #1,000kcmil aluminum wire weighs 2.8 lbs/foot.

3. Is it shielded so that personnel can work adjacent to it?
   Answer: The submarine cable is fully insulated and can come shielded with an armor coating on the outside to keep moisture & air out. Personnel can work around the exposed cable safely. The armored cable from the turbine can then be pushed thru the directional bore sleeve up into the building and terminated at the switch.

4. If they cannot work adjacent to it, what is the safe distance?
   Answer: The area that will need to be carefully watched is where the cable leads are terminated in the switch room. This is where normal electrical connection safety applies.

5. How deep can a directional bore go?
   Answer: Figuring the depth of the rip-rap, below and above sea level, plus the retaining wall, a bore of 100 foot deep will not be a problem.

6. How far can a directional bore go?
   Answer: The recommended maximum distance is 6,500 feet.
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7. What type of structure would be needed where the cable comes up on Island 4?

Answer: According to CBBT Staff, there’s no room in the present ventilation building. A new building will need to be built or a modular building be used. The cable can either be attached on the outside of the building & fed through conduit into the building or brought up inside the building in conduit.

8. How would the power be brought into the ventilation building?

Answer: The Transfer Switch would be inside the new building.

9. How would the cable be tied into our system?

Answer: The cable from the turbine will be on the Load side of CBBT system.

10. How would the power be isolated from our system if needed?

Answer: An Interconnect switch will be used.

11. How much current/load would be placed into our system?

Answer: The turbine will produce a max of 6MW of electricity. The turbine will generate this power at 690Volt, AC, 3-phase at 60 hertz frequency; this is standard for wind turbines of this magnitude. The wind turbine is equipped with a transformer stepping up from the generator terminal voltage (690 Volt) to a medium voltage at around 13.2 KV for the ac system connection. The transformer usually is located inside the base of the turbine tower and it will transmit the power back to Island #4 with the 13.2 KV rating. The 13.2KV was chosen for easy integration into CBBT existing power grid and to reduce the wire size need to bring the power to Island #4.

12. How much of our infrastructure could this system power?

Answer: Based on the provided load information, the turbine will provide power to the entire CBBT system. The average baseline load was calculated to be approximately 1MW.

13. What plans are there for maintenance of cable, trays, and equipment?
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Answer: This information will come from the manufacturer and installer. It should be the usual standard maintenance, similar to your present equipment.

14. How long would it take for this project to be completed?

Answer: This Project is scheduled to be completed in 2014.

15. How would this system be totally isolated from our grid?

Answer: The system would only be isolated from the grid if we are to power only the loads being served from Island 4. If we are to maintain isolation and serve all of CBBT’s load, we will have to pull new feeders from Island 4 to the other islands.

16. What means would there be to mitigate a lightning strike?

Answer: The installer of the turbine will ground the structure according to Manufacturer specs at the turbine structure site.
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Crofton Diving
Proposal

Pricing And Cost Criteria

Crofton Diving Corporation
Chesapeake Bay Bridge Tunnel – Wind Turbine
Preliminary Interconnect Feasibility Study

Proposal Pricing

April 16, 2012

Mr. Rick Thomas, PE
Project manager
Timmons Group
208 Golden Oaks Court, Suite 230
Virginia Beach, Va. 23452

Subj: Virginia Offshore Wind Advanced Technology Demonstration Project
Chesapeake Bay
#1- CBBT/Chicks Beach
#2-CBBT/Ft. Story

Topic: Fee Proposal Estimate

Dear Sir:

We are pleased to provide the following as fee proposal estimate information as you continue with your decision making processes. As you have been able to view within the document provided herein, our decades of experience on projects as shown within, this experience equates to realistic project procedures, protocol, proper selection and utilization of hardware and successful project results.

Project Pricing

Consistent with the Scope of Operations provided, the construction efforts are inclusive of all labor, supervision and equipment, mobilization and demobilization operations, acceptance of the appropriate number of reels of conductor, towing operations and load out of all equipment, assist in operational support of the splicing operations. At the conclusion of the project, provide as built data.

As earlier stated, all cable will be provided by others to Crofton’s facility and returnable reels will be managed by others with Crofton involved in the offload and load out at the project’s conclusion. All splice kits, splicing personnel and other associated materials will be furnished by others.

#1-Chick’s Beach to Turbine Tower Structure $2,787,500.00
#2-Ft. Story to Turbine tower Structure $3,354,750.00

Please call me should you have questions. We are pleased to provide contributive efforts to your team on a project of such significance and importance for the future of Renewable Power in the State of Virginia.

Sincerely yours,

Juan S. Crofton
Crofton Diving Corporation
Chesapeake Bay Bridge Tunnel – Wind Turbine
Preliminary Interconnect Feasibility Study

Subcontractor
And
Diversity Statement
Chesapeake Bay Bridge Tunnel – Wind Turbine
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Small Business & Diversity Statement

Crofton’s Small Business, Women, and Minority (SWaM) certification number is 8861.

Diversity Statement

Diversity is a value that is demonstrated through mutual respect and appreciation of the similarities and differences that make people unique. Such as: age, culture, education, ethnicity, experience, gender, race, religion, sexual orientation, etc.

An environment where diversity is respected is one where, as individuals and united members of teams or partnerships, we can effectively apply all of our talents, skills and experiences in pursuit of achieving business objectives.

Crofton is committed to all diverse workforce issues relating to our internal employees, our customers, our suppliers, and sub-contractors whom we seek to place in diverse project situations.

We are dedicated to creating and sustaining a respectful and inclusive environment and culture, to support a diverse workforce.

Equal Employment Opportunity Statement

Crofton’s policy is to insure the promotion of equal opportunity for all persons employed or seeking employment with Crofton or with clients, vendors, or sub-contractors of Crofton who utilize our services or work in conjunction with Crofton’s projects.

It shall be the policy of Crofton to provide equal opportunity to all applicants for employment and to administer all personnel practices such as recruitment, selection, training, promotions, terminations, transfers, layoffs, compensation, benefits and other terms, conditions and privileges of employment in a manner which does not discriminate on the basis of race, color, creed, age, sex, national origin or handicap.

We ask our hiring, sub-contractors, clients, and vendors to share the same commitment to providing equal opportunity in all practices, which affect employees and applicants for employment. The client, sub-contractor, and vendors shall ensure that decisions affecting employees are made without regard to their race, color, religion, sex, national origin, age, disability, or any other protected category. This policy is administered in accordance with federal laws (including but not limited to Title VII of the Civil Rights Act of 1964, as amended, Age Discrimination in the Employment Act of 1967, as amended, Equal pay Act of 1963, as amended, Americans with Disabilities Act of 1990, as amended) and all other applicable state or local law prohibiting discriminatory acts.

We ask that all Clients, Vendors, and Sub-Contractors of Crofton independently make a commitment to follow the same standards that Crofton maintains in its own employment environment.

Crofton Diving Corporation will endeavor, whenever practicable, to employ local labor and utilize local, North Carolina based subcontractors throughout the course of this project.
Chesapeake Bay Bridge Tunnel – Wind Turbine
Preliminary Interconnect Feasibility Study
Chesapeake Bay Bridge Tunnel – Wind Turbine
Preliminary Interconnect Feasibility Study

Engineering and Permit Acquisition

Phase I-Engineering and Permit Acquisition

The work entailed in this phase of the operation will include site visits by our survey teams developing GPS location and positioning information for this crossing. Our site visit will also include alignment and routing on the shoreline termination of the project as well as diving operations to develop discovery information for bottom composition and detailed channel depths, which play a large part in the installation process. Once the site survey is complete with real time positioning for PI and HDD locations, our research team will compile adjacent property owner and lease holder information with regards to the existing property rights which requires detailed investigation and further demonstration to the governing agencies.

With completion of all research and field studies, detailed permit drawings will be provided along with a complete photo log, adjacent property owner information, project construction methodology illustrations and other prerequisites as required within the state and federal government requirements for permit application and permit acquisition. The services included with the permit acquisition process will enable Crofton, as your Agent, to attend all state, federal, local and public meetings pertaining to the normal permit process. This thorough hands on process along with our availability to provide a construction perspective for the permit application reviewers at their discretion, has proven over many decades to provide an expeditious permit process with minimal outside engagement by other agencies, thus lessening cost and fees.
Chesapeake Bay Bridge Tunnel – Wind Turbine
Preliminary Interconnect Feasibility Study

Solutions and Innovations

Note: Should Crofton’s involvement with permit acquisition be required, during the course of our operations to acquire the project permits, should additional studies be required by the agencies beyond that of the normal field investigations operations and permit acquisition events that have been described herein, these additional services that may be mandated by these other agencies will be reviewed by our staff, discussed with the agency, and any additional costs for these additional surveys and/or reports would be developed and reported to the owner prior to continuance of the permit application process.

If for some unknown reason the permit process is terminated due to complexity of the project or a change in direction with regards to the agencies and their approvals, Crofton will be forwarded fees applicable to the work accomplished within the permit section of this proposal.

The total fee proposal estimate to conduct the operations as described herein for permit acquisition is: $41,830.00

Sincerely Yours,

Juan S. (Jay) Crofton
Crofton Diving Corporation

Commonwealth of Virginia
Marine Resources Commission
Authorization

A Permit has been issued to:

Hoagland Excavating, Inc.
400 East End Road
Richmond, VA 23229

The Permit is hereby authorized to:

explore a burial 3500' power cable west of the Route 322 Bridge, under 500 linear feet of water, and to conduct archaeological and cultural resource investigations as necessary to avoid and mitigate the effects of the proposed work as permitted by the Permit of the Commonwealth of Virginia and as permitted by the United States of America.

Issuance Date: April 29, 2011
Expiration Date: April 28, 2014

This Permit is issued only for the purposes specified in this document.

SAMPLE APPROVED CAMA PERMIT

Confidential and Proprietary
Utility Professional Services, Inc.
27
STATE MINERALS MANAGEMENT PLAN

COMMONWEALTH OF VIRGINIA

Guidelines for Mineral Activities
on State-owned Lands

Prepared by the
DEPARTMENT OF MINES, MINERALS AND ENERGY
in cooperation with the
DEPARTMENT OF GENERAL SERVICES
and the
VIRGINIA MARINE RESOURCES COMMISSION

Revised, August, 2004
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MINERALS MINING, LEASING AND EXTRACTION IN VIRGINIA

I. DEFINITIONS

The following terms when used in this plan shall have the following meanings indicated:

Agency - any state agency, department, division, institution, or other entity of state government.

Extraction - production of minerals by means of quarrying, pumping or dredging, surface mining, underground mining, removal through a borehole, or any other means.

Governing Authority - includes (i) the governing board or commission of any state agency, department, division, institution, or entity of state government, (ii) agency head or (iii) other person with authority to make final agency decisions.

Ground-disturbing exploration - includes but is not limited to drilling; the excavation of pits, trenches, shafts, adits, or other openings in the ground; the removal of any material other than samples by means of a hand-powered or hand-held powered auger or core device; vibrioses or other seismic surveys off of the state highway right-of-way or other roads; any other surveys or investigations that change the ground surface; the construction of access roads; and the cutting of trees, brush, or other vegetation in excess of that necessary for a nonground disturbing mineral survey.

Mineral Lease - a written agreement that conveys an interest in certain minerals on designated lands to a person for a specified period of time, and sets forth the terms of such conveyance and the rights and responsibilities of each party. The term may also include an option to lease.

Mineral activity - surveys, exploration, leasing, extraction, processing, and related reclamation activities for minerals.

Mineral - a naturally occurring, homogenous inorganic substance having a definite chemical composition and characteristic crystalline structure, color, and hardness. Dirt used for its bulk properties is not included in the definition of mineral.
Nonground-disturbing mineral survey - includes but is not limited to the making of geologic maps; the conduct of gravity, magnetic, radiometric, and similar geophysical surveys by means of instruments that cause no disturbance to the ground; vibrioses or other seismic surveys when conducted on state highway right-of-way or other roads; the collection of water samples from wells, springs, and lakes, streams, or other bodies of surface water; stream sediment sampling when no mechanical or suction equipment is used; the collection of a reasonable number of plants or plant parts for geochemical surveying; and the collection of a reasonable number of soil or near surface samples by means of a hand-powered or hand-held powered auger and or core device; provided that no access roads are constructed and that no other significant cutting of trees, brush, or other vegetation (unless deemed permissible by the responsible agency) occurs.

Person - any individual, corporation, partnership, association, company, business, trust, joint venture or other legal entity, including a governmental entity.

Pooling - the bringing together, under the jurisdiction of the Virginia Gas and Oil Board, of individually-owned tracts in a manner sufficient for the granting of a permit for oil or natural gas wells under applicable spacing rules.

Reconnaissance- general review of basic data collected in mineral exploration.

Responsible agency- the agency or institution having the authority to make decisions about the use of state-owned lands.

State-owned submerged lands- lands which lie seaward of the mean low water mark in tidal areas or which have an elevation below the average surface water level in nontidal areas.

State-owned uplands - lands which lie landward of the mean low water mark in tidal areas or which have an elevation above the average surface water level in nontidal areas.

Vibrioses - a seismic technique that employs a vibrating pad upon a road or ground surface, rather than explosive detonations.
II. STATUTORY REQUIREMENTS

The Commonwealth of Virginia's requirements for leasing and extraction of minerals on state-owned lands are set forth in the Code of Virginia and in this minerals management plan for state-owned uplands and submerged lands. They enable state agencies and institutions to respond to requests for mineral surveys, exploration, leasing, and extraction on state-owned lands.

A. STATE MINERALS MANAGEMENT PLAN

The Code of Virginia states that the Department of Mines, Minerals and Energy (DMME), in cooperation with the Department of General Services (DGS), shall develop a State Minerals Management Plan (SMMP). The Plan must include provisions for holding public hearings and advertising for competitive bids or proposals for mineral exploration, leasing, and extraction activities on state-owned uplands. Granting of mineral exploration or production leases for these lands shall be made by the responsible agency, with the assistance of DGS and DMME.

The Code of Virginia § 2.2-1157 requires that agencies, institutions, or departments proposing or receiving applications for mineral exploration, leasing or extraction on state-owned uplands, recommend such activities to the Department of General Services (DGS) following guidelines set forth in the SMMP. Following Gubernatorial approval, agencies may execute approved leases or contracts. The Governor has delegated by Executive Order 88(01) to the Secretary of Administration, the authority to determine if mineral exploration, leasing, or extracting is in the public interest and to approve leases or contracts for exploration or extraction (Code of Virginia § 2.2-1157).

The proceeds from mineral sales or leases above the costs to the agency sponsoring the sale and to DMME, shall be paid into the general fund of the state treasury so long as the sales or leases pertain to general fund agencies or the property involved was originally acquired through the general fund. The net proceeds from sales or leases of properties of special fund agencies or of properties acquired through gifts to such agency shall be retained by the agency or used in accordance with the original terms of the gift, if so stated.

B. STATE SUBAQUEOUS MINERALS MANAGEMENT PLAN

The Code of Virginia § 28.2-1208 E directs the VMRC, in cooperation with the Department of Mines, Minerals and Energy, and with the assistance of affected state agencies, departments, and institutions, to maintain a State Subaqueous Minerals Management Plan (SSMMP, see Appendix D) supplementing the SMMP. The VMRC acts as the lead agency over leasing and extraction activities and performs procurement functions in the same capacity as the Department of General Services in the SMMP.
III. UPLANDS MINING UNDER THE
STATE MINERALS MANAGEMENT PLAN

A. AGENCIES AND ACTIVITIES SUBJECT TO THE PLAN

The State Minerals Management Plan applies to all state agencies, departments or
institutions proposing or receiving applications for mineral surveys, exploration, leasing, and
extraction on state-owned uplands in Virginia. The procedures of this plan are applicable to all
state uplands including properties of general fund agencies and property originally acquired
through the general fund, properties of special fund agencies, and properties acquired through
exchange or as gifts. Mineral activities on state-owned, submerged lands are subject to the
provisions of the State Subaqueous Minerals Management Plan (described in Part II and in
Appendix D).

Mineral activities for all minerals including but not limited to metallic ores, nonmetallic
mineral and rock materials, coal, petroleum, natural gas, and coal-bed methane are subject to this
Plan. Mineral activities conducted on state-owned uplands shall be performed in full accordance
with all provisions of the Code of Virginia, this Plan, state, local, and federal regulations, and any
special stipulations established by the Commonwealth.

Exempted activities include any mining or borrow-pit operations which are conducted on
state-owned lands solely and exclusively for a state project, and which, if conducted by an
outside contractor, is subject to the control and supervision of a state agency through a contract.
If the contractor or lessee plans to sell the mineral products to the public or use the mineral
products for a project unrelated to the state contract, then the operation is not exempted and the
agency must meet all SMMP requirements.

Other specific mineral activities that are exempt from the State Minerals Management
Plan include:

Dept. of Corrections (Code of Virginia § 53.1-31)
Dept. of Conservation and Recreation (Code of Virginia § 10.1-111)
Dept. of Games and Inland Fisheries subaqueous lands (Code of Virginia § 29.1-105)
Sale of captive property with mineral interests (Code of Virginia § 2.2-1157)

(Code sections may be found in Appendix B.)

Scientific research that is exempt from this Plan includes mineral and geological studies
that are performed on state-owned lands by, or at the request of, state agencies for the purpose of
scientific research or for property evaluation in the conduct of state business. In addition, soil
boring, soil sampling, topographical surveys and other work not involving mineral extraction are
exempt.
Section 41.1-3 of the Code of Virginia, Grants of certain lands, etc., prohibits and voids any grants made after March 15, 1932, for certain lands belonging to the Commonwealth (including the old magazine at Westham, any quarry then worked by the Commonwealth, and any lands within one mile of the old magazine or quarry).

B. IMPLEMENTATION OF THE STATE MINERALS MANAGEMENT PLAN

Action will be taken under the SMMP in the following circumstances:

1. When a determination is made by an agency that the offering of leases on certain lands under its jurisdiction for the purpose of mineral exploration or extraction is timely and beneficial to the Commonwealth;

2. Upon the agency's receipt of a person or a company’s request for permission to conduct mineral surveys or exploration on lands administered by that agency; or

3. Upon the agency's receipt of a person or a company's request for a lease of or option to lease minerals on lands administered by that agency.

Any proposal from a person to conduct a mineral activity on state-owned lands will be classified as a mineral survey, a lease, or option to lease. Except for those coming under the forced pooling provisions of the Virginia Gas and Oil Act, Chapter 22.1 of Title 45.1 of the Code of Virginia, no mineral extraction or ground-disturbing exploration shall be conducted upon state-owned uplands unless a valid lease has been approved by the Governor and issued by the responsible agency. Agencies may grant permission to conduct mineral activities to more than one company.

The responsible agency will comply with state government policies and procedures. If possible, the designated agency or state organization should use electronic based forms and procedures to promote efficient and speedy processing.
Agency Proposal

An agency may propose that minerals on its property should be produced. In this case, the agency proposal must be considered and approved by its governing authority before any activity may take place. If the recommendation is not approved, no further action will be taken. If the recommendation is approved, the agency shall send the recommendation to DGS and DMME for further action under the remaining provisions of the SMMP.

External Request for Survey or Exploration

Companies may propose to conduct mineral surveys or exploration on state-owned lands. Such requests must identify the tract(s) proposed for study, the minerals to be investigated, the type, scope, the expected duration of the proposed work, including whether the survey will be a ground-disturbing or non-ground-disturbing, and whether the company wishes to receive an option to lease. The responsible agency may require any additional information, including the submittal of all engineering and geophysical data collected during exploration, and any resulting analysis or findings be submitted to the agency.

The governing authority of the responsible agency receiving a request for a mineral survey or exploration may either accept or reject the proposed activity.

- If a proposal for non-ground-disturbing survey or exploration is accepted, then the responsible agency will issue such approval to the applicant company. The approval will be on a nonexclusive basis for a time period sufficient to complete the work.

- If a proposal for ground-disturbing survey or exploration is accepted, then the responsible agency will send the recommendation to DGS, with a copy of the information to the DMME, Division of Mineral Resources. The recommendation will specify the area covered by the survey, the type of work allowed, and any conditions that must be met. The DGS and DMME, in consultation with affected agencies, will review the request for ground-disturbing survey or exploration. If the DGS and DMME approve, then the responsible agency will issue such approval to the applicant company. Approval for the mineral survey will be conditioned upon completion of all applicable permits. It shall be issued on an exclusive basis, for a time period sufficient to complete the work.

- If a proposal for a mineral survey with an option to lease is accepted, then the responsible agency will send the recommendation to DGS, with a copy of the information to the DMME, Division of Mineral Resources for further action under the remaining provisions of the SMMP.

- If the governing authority rejects the proposal, the determination on that proposal will be final.
Exemptions to Requirements for Ground Disturbing Surveys

Non-ground disturbing exploration that employs seismic equipment may be conducted along state highways to obtain measurements of gravity, magnetism, and radioactivity without obtaining a mineral survey permit or a lease under this plan. Surveys conducted on state highways right-of-way, however, shall be subject to land use permit requirements of the Virginia Department of Transportation and to all applicable traffic laws. Surveys conducted on roadways of other agencies will be subject to approval by the responsible agency.

The completion of a non-ground disturbing mineral survey does not give subsequent special rights or preference in later exploration.

Airborne geophysical surveys performed over state lands by remote sensing are exempt from this plan.

External Requests for a Mineral Extraction Lease

Companies may propose to extract minerals on state-owned lands. Requests for such a lease must be presented to an agency’s governing authority for action. The proposal must include information on the tracts of land for which the leases are sought and the methods of exploration or extraction to be employed.

The governing authority of the responsible agency receiving a request for a mineral lease may either accept or reject the proposed activity.

- If a proposal for a mineral lease is accepted, then the responsible agency will send the recommendation to DGS, with a copy of the information to the DMME, Division of Mineral Resources for further action under the remaining provisions of the SMMP.

- If the governing authority rejects the request, the determination will be final.

C. REVIEW OF PROPOSAL TO LEASE AND ISSUANCE OF REQUEST FOR PROPOSALS

When DGS receives a request to lease or option to lease from an agency, DGS will review the proposed activity with assistance from DMME, the responsible agency, and other appropriate agencies. The review will encompass compatibility with short and long-term agency goals, potential economic benefits to the state, potential environmental and social impact, and methods for minimizing and mitigating environmental impact.

Lands recommended for leasing will be selected and grouped by DGS and the responsible agency to allow the most efficient exploration, extraction, and reclamation activities, all of which will be performed in accordance with recognized industry and engineering practices and using
appropriate environmental safeguards. Lands will be grouped in the form of one or more lease units, each of which preferably consists of a single tract or a group of closely associated tracts within a limited area. If individual state-owned tracts within an area of interest are too small or scattered to accommodate a satisfactory exploration or extraction activity for minerals, a successful offeror may be allowed to consolidate the tracts with adjacent nonstate land if the bidder has rights to the minerals on the private land. In general, land selected for lease should be no larger than needed to accommodate the mineral activity.

In the case of tracts being considered for leasing in which the state holds a partial mineral interest, DGS will determine whether the commingling of that interest with the remaining portion of the interest held by other entities is beneficial to the Commonwealth.

The state will not consider leasing any lands in which the state holds a mineral interest but does not hold the surface ownership without obtaining the approval of the surface owner, unless such activity was granted or inferred by law from the document creating the separate mineral and surface estates. A lease issued on such lands may contain stipulations, as may be agreed upon by the state and the surface landowner, to protect the surface owner’s present or proposed use of the land.

Actions on other lands where the state only owns the surface are subject to the terms of the document creating the separate mineral estates, state law or federal law.

If the state owns the surface but does not own the gas, oil or coalbed methane rights on a tract, the responsible agency will, in the case of gas, oil or coalbed methane, receive notice of an application for a permit by a person proposing activities on the property (Virginia Gas and Oil Act, Title 45.1, Chapter 22.1, Code of Virginia). The responsible agency may then concur with or make objection to such activity in accordance with the provisions of the Virginia Gas and Oil Act.

Requests for proposals or bids will be prepared by the responsible agency using the State Agency Procurement and Surplus Property Manual issued by the DGS, Office of Purchase and Supply. The solicitations will include the terms of the lease recommended by the responsible agency, DGS, and DMME.

Requirements of this Plan do not apply to the extraction of gas, oil or coalbed methane on state-owned lands if there is an oil and gas pooling order, unless the well through which extraction will occur is situated on the state-owned land (§ 2.2-1157 of the Code of Virginia.).

No lease will be awarded until the Department of Environmental Quality (DEQ), in cooperation with the responsible agency, determines that the environmental impact statement (EIS) and public-hearing processes have been completed to the satisfaction of the state, or where appropriate, have been waived by the state, and the lease has been approved by the Governor.
D. THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

The successful bidder or proposer shall prepare and submit an environmental impact statement (EIS) to DEQ within one year of the recommendation from DGS and DMME. The statement will include the following items as applicable:

1. The purpose of the proposed activities to be conducted on state-owned land and the need for the proposed action.

2. A description of the existing environmental setting with regard to the physical conditions, including topography, timber and other vegetation, geology, soils, hydrology, flood potential, climate, and air quality.

3. A description of the existing environmental setting with regard to biological conditions, including terrestrial and aquatic ecosystems, wetlands, and threatened or endangered species.

4. A description of the socioeconomic conditions of the surrounding area, including location, population, size and distribution of existing population labor force, existing land uses, community facilities, transportation, and historical, recreational, scenic areas, and archeological sites.

5. A detailed description of the proposed action and alternatives, including site access and preparation, conduct of exploration, extraction, and related activities, deactivation of activities, and land reclamation.

6. A description of the environmental impact of the proposed activities, methods, or plans, including any adverse consequences which cannot be avoided, upon each of the existing environmental factors cited in 2, 3, and 4, including but not limited to:

   a. Any polluting substances, which are to be employed or which may result from the proposed operation, and the plan for use, reuse, recycling or disposal of all such substances.

   b. The nature and expected duration of any activity that will produce noise levels which could reasonably be expected to have an adverse impact upon people or wildlife.

   c. The nature and size of any operation that will be visible from any present public roadway or from any major public-use area or viewpoint.
d. The location, length, and width of all roadways that would be constructed upon property owned or held by lease by the state.

e. The anticipated use of any roadways presently situated within the property to be leased and any upgrades needed, any potential damage to each roadway from such use, and plans to correct any damage.

f. The location of any proposed clearing of timber, brush, or undergrowth, the size stated in square feet of each area to be so cleared, and the value of the timber and total forest cover and disposition of proceeds.

g. The location of any areas in which ground-disturbing activities may take place, identifying especially those areas which may adversely affect streams or other waterways or roadways, whether such streams, waterways, or roadways are located within or without the property to be leased.

h. The nature, size, and location of all areas in which the contour of the land may be altered by proposed operations and the plan for restoring the affected land in accordance with applicable reclamation requirements.

i. The type and location of excavation or drilling to be employed.

j. The base length, width, height, number, and proposed location of all ground-disturbing exploration equipment and mining facilities to be employed upon the property to be leased.

k. The method of installation of any utility, petroleum or gas transmission lines, and the anticipated number and location of all such lines, including a statement of the width of clearing required for the construction of the lines and the maintenance of rights-of-way for all such lines.

l. The plans for monitoring for leaks or breaks in any petroleum or gas transmission lines on state-owned lands.

7. A description of mitigating measures proposed to minimize the adverse impact of the proposed activities.

8. A description of any irreversible environmental changes that would occur as a result of the proposed activities.
9. A list of local, state, and federal permits which are applicable to the proposed operations. (See Appendix D for list of applicable Virginia agencies and resources.)

10. An executive summary of the EIS report.

Information required in the EIS should be supplied as completely as possible to assist the state in making a determination whether or not to lease. A requirement to address any items that cannot be adequately or specifically addressed in the statement may be made a condition of any lease.

Waiver of Environmental Impact Statement

The successful offeror may request that all or part of the EIS be waived providing that:

- The lessee does not occupy or encroach upon state-owned surface land.
- The lessee does not extract minerals from beneath state-owned lands in such a manner as to adversely affect the surface or groundwater.
- The lessee complies with all other requirements imposed by the state relevant to the environmental protection and current and future plans for use of those state-owned lands.

Waiver of any or all of the requirements of the EIS must be made by the responsible agency with the concurrence of DEQ and will be a subject for discussion at the public hearing.

Violation of any EIS conditions included in a lease may be grounds for termination of the lease by the state.

Review of the Environmental Impact Statement

The EIS report will be made a matter of public record.

DEQ will distribute the EIS report for review by applicable state agencies. These agencies may request information and clarification to further evaluate the proposed activities. The statement review process is to be completed within six months after submission by the applicant, unless specifically approved for extension by the Director of DGS.

The applicant must make the statement and the executive summary available for public inspection at least 15 days prior to the required public hearing (§ 2.2-1157 of the Code of Virginia). Copies must be made available for public inspection at the courthouse of the county in which the majority of the land to be leased is located, and at any other location or locations deemed appropriate by DEQ.
E. THE PUBLIC HEARING

Following submission of the EIS by the bidder or proposer, a public hearing will be held.

DEQ, in association with the responsible agency, will schedule the hearing at a site readily accessible to the public in the area where the state-owned land is located. The responsible agency will post notice of the hearing in compliance with the Freedom of Information Act. The notice will be posted in electronic form through the Commonwealth Calendar and in the Virginia Register of Regulations. The subject of the hearing will be the contents of the EIS or decision to waive the EIS based on the impact of the proposed mineral activity.

F. LEASE DECISION AND CONDITIONS

If DGS, DMME, DEQ, and the responsible agency, based on the EIS, the record of the public hearing, the recommendations of reviewing agencies, and all other information determine that the proposed mineral activity will not cause irreparable damage to the environment and the responsible agency has received the fees agreed upon in the successful bid, then the directors of DGS and DMME will send their recommendation to lease to the Governor. If the Governor finds that the activity is in the public interest and approves the lease, then the responsible agency may execute the lease through its governing authority.

The lease granted by the responsible agency shall state all rights being conveyed to the lessee along with required duties and responsibilities. In addition, the legal description of the land should include reference to permanent survey reference marks that are readily identifiable in the field. This area will be shown on a map of no less than 1:25,000 in scale.

The lease will address at minimum:

- The minerals, rock materials, or other mineral fuels (including gaseous fuels) that may be explored for, developed, and produced with the required permits;
- Minerals being reserved;
- The rights of the responsible agency and the leasee related to production of co-product or by-product materials;
- The use or sale of waste materials from mining or processing, including overburden;
- The use or disposition of any timber;
- The duration of the lease with any stipulation as to when the exploration or development may begin;
- The provisions for renewal and rentals;
- The amount of royalty based upon the value of production and method used to establish the value of production;
- The allowable fees to be charged against royalties;
• Storage rights for placing oil or gas in underground formations for subsequent extraction and sale of these products (if gas, oil or coalbed methane is subject to the lease);
• Terms and frequency of any reports to be submitted by the lessee;
• The rights of the state related to access, use of the tract by the state, transfer of leases; and
• Reclamation requirements if any exceed minimal regulatory requirements.

A lease shall be issued for specified periods. These periods or terms should be established to allow sufficient lengths of time to promote resource exploration and development. Depending upon the type of mineral proposed to be developed, it is recommended that the primary term of a lease be for five years at minimum. Typically, oil, gas or metallic mineral mine leases have a primary term of 10 years.

As a requirement of the lease agreement, the lessee will submit to the responsible agency, periodic reports, on the amount, value, and disposition of all minerals extracted or processed. The responsible agency will have the right to inspect reports to ensure the royalty payments are accurate.

Productive leases in the secondary term may include provisions for minimum annual rentals. If such provisions are established in a lease, a per/acre cost and time line would be set as would be rental cost increases for the duration of the lease. The annual rental charge for a productive lease could be set at a price not less than the per/acre charge for the years in which production does not take place, if the rental exceeds the royalty.

The secondary term of the lease should stipulate the amount of royalty to be received by the State, based upon the value of production of the minerals specified by the lease. Royalties should have a specified minimum and should be based upon terms and conditions set by the Department of Mines, Minerals and Energy. Rentals and royalties payable for lands in which the State owns a fractional interest shall be in the same proportion to the full rentals and royalties as the interest of the State in the minerals underlying the leased lands is to the full mineral interest.

In the event that the property to be leased is in use, the responsible agency should reserve the right to continue use of its property as it desires. This use includes public access, providing that all safety precautions are taken and as long as use does not interfere with operations being conducted by the lessee.

Storage rights for placing oil or gas in underground formations for subsequent extraction and sale of these products are not automatically included in oil and gas leases. The lease should explicitly address this right. Separate agreements for underground storage facilities shall be in accordance with the provisions of this plan.
If the proposed activities, when being considered for approval are not fully acceptable, the successful bidder or proposer may, if allowed by the responsible agency, within 30 days submit a revised plan for further consideration. If the successful bidder or proposer and the agencies cited cannot agree upon a mutually acceptable plan, the leasing action shall be terminated by the Department of General Services or responsible agency. In the event of such termination, the amount of that applicant’s lease bid less the cost of the lease sale to the Commonwealth, shall be returned to the unsuccessful applicant. The Department of General Services and the DMME, with the advice of DEQ and the responsible agency, may then elect to consider the application of the next highest bidder or proposer, to call for a new lease sale, or to discontinue the lease effort as deemed appropriate.

Responsible agencies should consider lease renewals on a case-by-case basis. The renewal terms are recommended to be for five years but may be adjusted according to the needs or requirements of the responsible parties. If the option is to renew a lease, renewal could be dependent upon requirements set by the responsible agency that include, but are not limited to, site productivity, rental and royalty payments, and lease and permit compliance.

A lease on state-owned land may not be assigned, subleased, or transferred to any other party in any manner without the written approval of the responsible agency.

G. PERMIT AND BOND REQUIREMENTS

The lease(s) granted as a result of the competitive bid or proposal process do not constitute a permit for the actual conduct of mineral activities upon the leased land. The lessee must obtain all appropriate federal, state, and local permits and approvals necessary for oil and gas drilling, mineral extraction, ground-disturbing exploration, or other mineral activities. The lessee will post bond in the manner and amount required for issuance of such permits or conduct of such activities. The responsible agency may require that the lessee post an additional bond or an increased amount of bond, and may require that the operator obtain liability insurance, with the Commonwealth and appropriate state agencies named as additional insureds. Bonds and insurance should be sufficient to enable the state to conduct necessary remedial action and reclamation, in the event that the lessee fails to comply with approved operational or reclamation plans or lease provisions.

Upon receiving all necessary permits, posting bond, and presenting proof of all necessary approvals to the responsible agency, the lessee may conduct the ground disturbing exploratory activity or extraction. The work must be carried out in full compliance with all laws, rules, regulations, and permit stipulations, and under the conditions stated in the approved lease and EIS. The responsible party conducting the exploration or extraction must perform reclamation of any disturbed areas as required by state agencies and by conditions established in the approved permits, leases, and other agreements.
In the event that a person holding a lease has completed exploration and wishes to begin a mineral extraction activity, any and all additional permits must be obtained and conditions stipulated in the lease must be satisfied prior to extraction. Copies of any additional or modified permits must be filed with the responsible agency before extraction activities begin.

H. REPORTING AND OVERSIGHT

Lessees conducting ground-disturbing exploration must provide signed copies of all reports, logs of drilling and coring, well or core hole test data, maps, and other information resulting from the exploration work to DMME, DMR and other agencies as required by the responsible agency or the lease agreement. The responsible agency may approve use of electronic reports in lieu of signed paper copies of required materials.

Extraction of minerals from leased state-owned lands must be conducted in accordance with the terms of the lease, permit conditions, and all rules, regulations, and special stipulations of the federal, state, and local regulatory agencies having jurisdiction over the operations.

In the event that operations are not conducted in the manner approved, the responsible agency will have the right to suspend or terminate any or all phases of such operations if the violations continue after a period of official notice by the agency. Further, the agency may order an immediate cessation of any operations and require any necessary remedial actions by the operator if an environmental problem or a threat to public health and safety appears to exist or be imminent. These actions are in addition to any action that may be taken by a local, state, or federal regulatory agency.

The responsible agency will receive periodic reports, as prescribed in the lease, on the amount, value, and disposition of all mineral materials extracted or processed, and will have the right to inspect reports to ensure the royalty payments are accurate. All production and financial records will be subject to review by the Auditor of Public Accounts for up to three years after completion of the activity.

I. RECLAMATION OF MINERAL EXTRACTION SITES AND DISPOSITION OF PROCEEDS

Reclamation of state-owned land upon which ground-disturbing exploration or mineral extraction, processing, and related activities have taken place must be in full accordance with all requirements established in the permits, leases, or other agreements. Bonds or moneys deposited to guarantee performance will not be released until the reclamation (or reclamation phase if applicable) has been approved by the responsible and applicable regulatory agencies. Following closure of the approved mineral activity and satisfactory reclamation, the land should be returned to such use as the responsible agency may deem appropriate.
Proceeds from lease sales or leases, above the cost of such sale to the responsible agency and DMME, will be paid into the general fund of the State Treasury, if the sales or leases pertain to general fund agencies or if the property involved was originally acquired through the general fund. The net proceeds from sales or leases of properties of special fund agencies or of properties acquired through gifts to such agency will be retained by the agency or used in accordance with the original terms of the gift, if so stated.
IV. APPENDICES

Appendix A  Legislative History

Appendix B  Sections 2.2-1157, 28.2-1200, 28.2-1203 through 1208, 29.1-105, 41.1-3, and 53.1-31 of the Code of Virginia

Appendix C  Information on State and Federal Requirements for Mineral Mining Activities in Virginia

Appendix D  State Subaqueous Minerals Management Plan
APPENDIX A

LEGISLATIVE AND REGULATORY HISTORY

The General Assembly first passed general legislation governing mineral mining on state uplands in 1982. This legislation established procedural requirements for mineral surveys, exploration, leasing, and extraction activities on state-owned lands. It also empowered all state agencies to execute mineral leases or contracts approved by the Governor, and specified the payment of net proceeds from sales and leases to the general fund or to special fund agencies in accordance with the land classification.

The law further mandated that a State Minerals Management Plan (SMMP) be developed by the Department of General Services, Division of Engineering and Buildings (DGS), with the assistance of affected state agencies. The resulting plan, completed in 1983, provided guidelines for mineral surveys, exploration, leasing, and extraction, initiated by the agencies or by private companies or individuals. The legislation also directed the Governor to determine whether proposed mineral exploration, leasing, or extraction of minerals on state-owned uplands is in the public interest. State agencies may execute such mineral leases or contracts that have been approved by the Governor.

The 1986 amendments narrowed the 1984 definition of state-owned uplands to "lands which lie landward of the mean low water mark in tidal areas and which have an elevation above the ordinary water level in non-tidal areas." The amendments provided that mining, leasing, and extraction activities on state-owned submerged lands are to be administered by the Marine Resources Commission pursuant to § 28.2-1208 of the Code. The 1986 amendment to this section directed the Marine Resources Commission, in cooperation with the Division of Mineral Resources (DMR) of the Department of Mines, Minerals and Energy and with the assistance of affected state agencies, departments and institutions, to develop a State Subaqueous Minerals Management Plan to supplement the existing State Minerals Management Plan. The State Subaqueous Plan was prepared accordingly and incorporated in 1987 as a supplement to the State Minerals Management Plan. The SMMP was revised at the same time to reflect this and other changes.

This supplemental plan adds all state-owned submerged land to the processes described in the SMMP. This is an area roughly the size of the State of Delaware, encompassing 2,300 square miles of water surface and 1,472,000 acres of state-owned bottom lands.

The Virginia Marine Resources Commission (VMRC) is the responsible agency for all state-owned bottom lands except Back Bay and the North Landing river. In that area, the Department of Game and Inland Fisheries is the responsible agency.
In 1993, the General Assembly amended the provisions governing State Subaqueous Minerals Management Plan to require environmental impact reports to be completed and reviewed by the appropriate agency of the Commonwealth. Leases were made subject to approval by the Attorney General.

Governors have issued Executive Orders delegating authority for determining whether mineral exploration, leasing or extraction is in the public interest, and approval of leases or contracts typically, to the Secretary of Administration. Anyone wishing current information regarding delegation of authority may contact DMME.
§ 2.2-1157. Exploration for and extraction of minerals on state-owned uplands.

A. The Department of Mines, Minerals and Energy, in cooperation with the Division, shall develop, with the assistance of affected state agencies, departments, and institutions, a State Minerals Management Plan (the "Plan"). The Plan shall include provisions for the holding of public hearings and the public advertising for competitive bids or proposals for mineral exploration, leasing, and extraction activities on state-owned uplands. Sales of mineral exploration permits and leases for these lands shall be administered by the Division, with the advice of the Department of Mines, Minerals and Energy.

B. Upon receiving the recommendation of both the Director of the Department of General Services and the Director of the Department of Mines, Minerals and Energy, the Governor shall determine whether the proposed mineral exploration, leasing, or extraction of minerals on state-owned uplands is in the public interest. No state-owned uplands shall be approved for mineral exploration, leasing, or extraction without a public hearing in the locality where the affected land or the greater portion thereof is located and a competitive bid or proposal process as described in the Plan. The provisions of this section shall not apply to the extraction of minerals on state-owned uplands pursuant to an oil or gas pooling order unless the well through which the extraction will occur is situated on such land.

For purposes of this section, "state-owned uplands" means lands owned by the Commonwealth that (i) lie landward of the mean low water mark in tidal areas or (ii) have an elevation above the average surface water level in nontidal areas.

C. The agencies, departments, or institutions proposing or receiving applications for mineral exploration, leasing or extraction on state-owned uplands shall, through their boards or commissions, recommend as specified in subsection B of § 2.2-1156 all such activities to the Division following guidelines set forth in the Plan. The Division and the Department of Mines, Minerals and Energy shall review and recommend to the Governor such proposed activities. Such agencies, departments or institutions, through their boards or commissions, may execute the leases or contracts that have been approved by the Governor.

D. The proceeds from all such sales or leases above the costs of the sale to the Department of Mines, Minerals and Energy or to the agency, department or institution sponsoring the sale shall be paid into the general fund of the state treasury, so long as the sales or leases pertain to general fund agencies or the property involved was originally acquired through the general fund. Net proceeds from sales or leases of special-fund agency properties or property acquired through a gift shall be retained by such agency or institution or used in accordance with the original terms of the gift if so stated.

E. Mining, leasing, and extraction activities in state-owned submerged lands shall be authorized and administered by the Virginia Marine Resources Commission pursuant to § 28.2-100 et seq.
§ 10.1-111. Removal of minerals.

The Director, with the approval of the Governor, is authorized to make and execute leases, contracts or deeds in the name of the Commonwealth, for the removal or mining of minerals that may be found in Departmental lands whenever it appears to the Director that it would be in the best interest of the Commonwealth to dispose of these minerals. Before any deed, contract or lease is made or executed, it shall be approved as to form by the Attorney General, and bids therefor shall be received after notice by publication once each week for four successive weeks in two newspapers of general circulation. The Director shall have the right to reject any or all bids and to readvertise for bids. The accepted bidder shall give bond with good and sufficient surety to the satisfaction of the Director, and in any amount that the Director may fix for the faithful performance of all the conditions and covenants of the lease, contract or deed. The proceeds arising from any contract, deed, or lease shall be deposited into the state treasury to the credit of the Conservation Resources Fund established in § 10.1-202.


§ 28.2-1200. Ungranted beds of bays, rivers, creeks and shores of the sea to remain in common.

All the beds of the bays, rivers, creeks and the shores of the sea within the jurisdiction of the Commonwealth, not conveyed by special grant or compact according to law, shall remain the property of the Commonwealth and may be used as a common by all the people of the Commonwealth for the purpose of fishing, fowling, hunting, and taking and catching oysters and other shellfish. No grant shall be issued by the Librarian of Virginia to pass any estate or interest of the Commonwealth in any natural oyster bed, rock, or shoal, whether or not it ebbs bare.


§ 28.2-1203. Unlawful use of subaqueous beds; penalty.

A. It shall be unlawful for any person to build, dump, trespass or encroach upon or over, or take or use any materials from the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth, unless such act is performed pursuant to a permit issued by the Commission or is necessary for the following:

1. Erection of dams, the construction of which has been authorized by proper authority;

2. Uses of subaqueous beds authorized elsewhere in this title;
3. Construction and maintenance of congressionally approved navigation and flood-control projects undertaken by the United States Army Corps of Engineers, the United States Coast Guard, or other federal agency authorized by Congress to regulate navigation, navigable waters, or flood control;

4. Construction of piers, docks, marine terminals, and port facilities owned or leased by or to the Commonwealth or any of its political subdivisions;

5. Except as provided in subsection D of § 28.2-1205, placement of private piers for noncommercial purposes by owners of the riparian lands in the waters opposite those lands, provided that the piers do not extend beyond the navigation line or private pier lines established by the Commission or the United States Army Corps of Engineers. Subject to any applicable local ordinances, such piers may include an attached boat lift and an open-sided roof designed to shelter a single boat slip or boat lift. In cases in which such roofs will exceed 700 square feet in coverage, and in cases in which an adjoining property owner objects to a proposed roof structure, permits shall be required as provided in § 28.2-1204; or

6. Agricultural, horticultural or silvicultural irrigation on riparian lands or the watering of animals on riparian lands, provided that (i) no permanent structure is placed on or over the subaqueous bed, (ii) the person withdrawing water complies with requirements administered by the Department of Environmental Quality under Title 62.1, and (iii) the activity is conducted without adverse impacts to instream beneficial uses as defined in § 62.1-10.

B. A violation of this section is a Class 1 misdemeanor.


§ 28.2-1204. Authority of Commission over submerged lands.

The Commission is authorized to:

1. Issue permits for all reasonable uses of state-owned bottomlands not authorized under subsection A of § 28.2-1203, including but not limited to, dredging, the taking and use of material, and the placement of wharves, bulkheads, and fill by owners of riparian land in the waters opposite their lands, provided such wharves, bulkheads, and fill do not extend beyond any lawfully established bulkhead lines;

2. Issue permits to recover underwater historic property pursuant to §§ 10.1-2214 and 28.2-1203; and

3. Establish bulkhead and private pier lines on or over the bays, rivers, creeks, streams, and shores of the ocean which are owned by or subject to the jurisdiction of the Commonwealth for this purpose, and to issue and publish maps and plats showing these lines; however, these lines shall not conflict with those established by the United States Army Corps of Engineers.
§ 28.2-1205. Permits for the use of state-owned bottomlands.

A. When determining whether to grant or deny any permit for the use of state-owned bottomlands, the Commission shall be guided in its deliberations by the provisions of Article XI, Section I of the Constitution of Virginia. In addition to other factors, the Commission shall also consider the public and private benefits of the proposed project and shall exercise its authority under this section consistent with the public trust doctrine as defined by the common law of the Commonwealth adopted pursuant to § 1-10 in order to protect and safeguard the public right to the use and enjoyment of the subaqueous lands of the Commonwealth held in trust by it for the benefit of the people as conferred by the public trust doctrine and the Constitution of Virginia. The Commission shall also consider the project's effect on the following:

1. Other reasonable and permissible uses of state waters and state-owned bottomlands;
2. Marine and fisheries resources of the Commonwealth;
3. Tidal wetlands, except when this has or will be determined under the provisions of Chapter 13 of this title;
4. Adjacent or nearby properties;
5. Water quality; and

B. The Commission shall consult with other state agencies, including the Virginia Institute of Marine Science, the State Water Control Board, the Virginia Department of Transportation, and the State Corporation Commission, whenever the Commission's decision on a permit application relates to or affects the particular concerns or activities of those agencies.

C. No permit for a marina or boatyard for commercial use shall be granted until the owner or other applicant presents to the Commission a plan for sewage treatment or disposal facilities which has been approved by the State Department of Health.

D. A permit is required and shall be issued by the Commission for placement of any private pier measuring 100 or more feet in length from the mean low-water mark, which is used for noncommercial purposes by an owner of the riparian land in the waters opposite the land, and that traverses commercially productive leased oyster or clam grounds, as defined in § 28.2-630, provided that the pier does not extend beyond the navigation line established by the Commission or the United States Army Corps of Engineers. The permit may reasonably prescribe the design and location of the pier for the sole purpose of minimizing the adverse impact on such oyster or clam grounds or the harvesting or propagation of oysters or clams therefrom. The permit shall
contain no other conditions or requirements. Unless information or circumstances materially alter
the conditions under which the permit would be issued, the Commission shall act within ninety
days of receipt of a complete joint permit application to approve or deny the application. If the
Commission fails to act within that time, the application shall be deemed approved and the
applicant shall be notified of the deemed approval.

E. All permits issued by the Commission for the use of state-owned bottomlands or to recover
underwater historic property shall be in writing and specify the conditions, terms and royalties
which the Commission determines are appropriate.

F. Any person aggrieved by a decision of the Commission under this section is entitled to judicial
review in accordance with the provisions of the Administrative Process Act (§ 2.2-4000 et seq.).
However, any decision made by the Commission hereunder consistent with the public trust
document as defined by the common law of the Commonwealth adopted pursuant to § 1-10 shall
not be deemed to have been made pursuant to the police power. Nothing in this subsection shall
be construed to deprive a riparian landowner of such rights as he may have under common law.

621; 1972, c. 866; 1973, cc. 23, 361; 1974, cc. 92, 385; 1975, c. 431; 1976, c. 579; 1980, c. 253;

§ 28.2-1206. Permit fees; royalties; exemptions.

A. The fee paid to the Commission for issuing each permit to recover underwater historic
property shall be twenty-five dollars.

B. The fee paid to the Commission for issuing each permit to use state-owned bottomlands shall
be twenty-five dollars, but if the cost of the project is to exceed $10,000, the fee paid shall be
$100. Commercial facilities engaged in the primary business of ship construction and repair may
elect to pay a one-time permit fee of up to $5,000 in lieu of any other royalties, except that
royalties for removal of bottom material shall be charged as provided in subsection C.

C. When the activity or project for which a permit is requested will involve the removal of
bottom material, the application shall indicate this fact. If granted, the permit shall specify a
royalty of not less than twenty cents, nor more than sixty cents, per cubic yard of bottom material
removed. In fixing the amount of the royalty, the Commission shall consider, among other
factors, the following:

1. The primary and secondary purposes for removing the bottom material;

2. Whether the material has any commercial value and whether it will be used for any
commercial purpose;

3. The use to be made of the removed material and any public benefit or adverse effect upon
the public which will result from the removal or disposal of the material;

4. The physical characteristics of the material to be removed; and
5. The expense of removing and disposing of the material.

D. Where it appears that the project or facility for which a permit application is made has been completed or work thereon commenced at the time application is made, the Commission may impose additional assessments not to exceed an amount of three times the normal permit fee and royalties.

E. Bottom material removed attendant to maintenance dredging shall be exempt from any royalty. The Virginia Department of Transportation shall be exempt from all fees and royalties otherwise assessable under this section. All counties, cities, and towns of the Commonwealth shall pay the required permit fee but shall be exempt from all other fees and royalties assessable under this section if the permit is issued prior to the commencement of any work to be accomplished under the permit.

F. All fees and royalties collected pursuant to this chapter on and after July 1, 2000, shall be paid into the state treasury to the credit of the Marine Habitat and Waterways Improvement Fund.

§ 28.2-1207. Authority to approve permits for encroachment on subaqueous beds; notice.

A. Any application for a permit to trespass upon or over or encroach upon subaqueous beds which are the Commonwealth's property may be approved by the Commissioner or his authorized representative if the application meets the requirements of §§ 28.2-1205 and 28.2-1206 and the following criteria are satisfied:

1. The total value of the project does not exceed $50,000;

2. The application is not protested by any citizen or objected to by any state agency; and

3. The project for which the permit is sought will not require any other permit from the Commission.

B. If the permit application is for a shore erosion control project recommended by the soil and water conservation district in which the project is to be located and the criteria listed in subsection A of this section are satisfied, the Commission may, after giving notice of the application to the Virginia Institute of Marine Science, approve the application without giving notice to or awaiting the approval of any other state agency.

C. The Commission shall, in conjunction with affected state and federal agencies, develop an expedited process for issuing general permits for activities that are intended to improve water quality such as bioengineered streambank projects and livestock stream crossings, and for activities required during emergencies in which a determination has been made that there is a threat to public or private property, or to the health and safety of the public. The development of
the general permit shall be exempt from Article 2 (§ 2.2-4007 et seq.) of the Administrative Process Act.


§ 28.2-1208. Granting easements in or leasing the beds of certain waters.

A. The Marine Resources Commission may, with the approval of the Attorney General and the Governor, grant easements in or lease the beds of the waters of the Commonwealth outside of the Baylor Survey. Every easement or lease executed pursuant to this section shall be for a period not to exceed five years and shall specify the rent royalties and such other terms deemed expedient and proper. Such easements and leases may include the right to renew the same for an additional period not to exceed five years, and, in addition to any other rights, may authorize the grantees and lessees to prospect for and take from the bottoms covered thereby, oil, gas, and other specified minerals and mineral substances. However, no easement or lease shall in any way affect or interfere with the rights vouchsafed to the people of the Commonwealth concerning fishing, fowling, and the catching and taking of oysters and other shellfish in and from the leased bottoms or the waters above.

B. All easements granted and leases made pursuant to this section shall be executed for, and in the name and on behalf of, the Commonwealth by the Attorney General and shall be countersigned by the Governor.

C. All rents or royalties collected from such easements or leases on and after July 1, 2000, shall be paid into the state treasury to the credit of the Marine Habitat and Waterways Improvement Fund.

D. Prior to December 1 of each year, the Commissioner and the Attorney General shall make reports to the General Assembly on all easements and leases executed pursuant to this section during the preceding twelve months.

E. The Commission shall, in cooperation with the Division of Mineral Resources of the Department of Mines, Minerals and Energy and with the assistance of affected state agencies, departments and institutions, maintain a State Subaqueous Minerals Management Plan which shall supplement the State Minerals Management Plan set forth in § 2.2-1157. The State Subaqueous Minerals Management Plan shall include provisions for (i) the holding of public hearings, (ii) public advertising for competitive bids or proposals for mineral leasing and extraction activities, (iii) preparation of environmental impact reports to be reviewed by the appropriate agency of the Commonwealth, and (iv) review and approval of leases by the Attorney General and the Governor as required by subsection A. The environmental impact reports shall address, but not be limited to:

1. The environmental impact of the proposed activity;
2. Any adverse environmental effects which cannot be avoided if the proposed activity is undertaken;

3. Measures proposed to minimize the impact of the proposed activity;

4. Any alternative to the proposed activity; and

5. Any irreversible environmental changes which would be involved in the proposed activity.

For the purposes of subdivision 4 of this subsection, the report shall contain all alternatives considered and the reasons why the alternatives were rejected. If a report does not set forth alternatives, it shall state why alternatives were not considered.


§ 29.1-105. Lease or contract respecting land or buildings.

The Board is authorized, with the approval of the Governor, to enter into contracts respecting or to lease any land or buildings leased or owned by it to private persons, corporations, associations, other governmental agencies, public authorities duly created by law or political subdivisions of the Commonwealth. The contracts or leases shall be (i) upon terms and conditions as deemed advisable by the Board, (ii) in a form to be approved by the Attorney General, and (iii) consistent with the powers, authority and responsibilities of the Board. If any such lease or contract is to be effective for a term of more than five years, it shall be authorized only after a public hearing by the Board. All amounts received pursuant to leases and contracts hereunder shall be deposited in the state treasury to the credit of the game protection fund.


§ 41.1-3. Grants of certain lands, etc., to be void; such lands, etc., under control of Governor.

No grant shall be valid or effectual in law to pass any estate or interest in (i) any lands unappropriated or belonging to the Commonwealth, which embrace the old magazine at Westham, or any stone quarry now worked by the Commonwealth, or any lands which are within a mile of such magazine, or any such quarry; (ii) any ungranted beds of bays, rivers, creeks and the shores of the sea under § 28.2-1200; (iii) any natural oyster bed, rock, or shoal, whether such bed, rock, or shoal shall ebb bare or not; (iv) any islands created in the navigable waters of the Commonwealth through the instrumentality of dredging or filling operations; (v) any islands which rise from any lands which are property of the Commonwealth under § 28.2-1201; or (vi) any ungranted shores of the sea, marsh or meadowlands as defined in § 28.2-1500. Every such grant for any such lands, islands, bed, rock, or shoal shall be absolutely void; however, this section shall not be construed to affect the title to grants issued prior to March 15, 1932. Such magazine and every such stone quarry and the lands of the Commonwealth adjacent to or in their
neighborhood, shall be under the control of the Governor, who may make such regulations concerning the same as he may deem best for the interests of the Commonwealth.


§ 53.1-31. Sale or lease of gas, oil or minerals.

The Director, with the approval of the Board, is empowered to make and execute contracts, easements and leases in the name of the Commonwealth for the removal or mining of gas, oil or any valuable minerals that may be found in any real estate, title of which is vested in the Board, whenever it appears to the Board that it will be in the best interest of the Commonwealth to make such disposition of such gas, oil or minerals. Before a contract, easement or lease is made, the same shall be approved by the Governor, and any contract, easement or lease shall be approved as to form by the Attorney General.

Bids therefor shall be received after notice by publication once a week for four successive weeks in at least two newspapers of general circulation. The Director shall have the right to reject any or all bids and to readvertise for bids. The accepted bidder shall give bond with good and sufficient surety to the satisfaction of the Director and in such amount as he may fix for the faithful performance of all the conditions and covenants of such contract, easement or lease.

Each such contract, easement or lease may be for a period not exceeding five years, may include the right to renew the same for an additional period not exceeding five years each and shall specify the rent royalties and other terms deemed expedient and proper. Such contracts, easements and leases may, in addition to any other rights, authorize the grantees and lessees to prospect for and take from the real estate oil, gas and such other minerals as are therein specified. No such contract, easement or lease shall in any way affect or interfere with the orderly operation of any state correctional facility. All rents or royalties collected from such contracts, easements or leases shall be paid into the state treasury to the credit of the general fund.

APPENDIX C
INFORMATION ON STATE REQUIREMENTS
FOR MINERAL MINING IN VIRGINIA

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<tr>
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<th>Agency to Contact</th>
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</thead>
<tbody>
<tr>
<td>Dredging navigable waters and wetland disturbance joint permitting process</td>
<td>U.S. Army Corps of Engineers/Virginia Marine Resource Commission (VMRC)/Department of Environmental Quality (DEQ)</td>
</tr>
<tr>
<td>Pesticide distribution and application, endangered plants and insects</td>
<td>Department of Agriculture and Consumer Services</td>
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<tr>
<td>Impacts on the Chesapeake Bay</td>
<td>Chesapeake Bay Local Assistance Department</td>
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<tr>
<td>Impact on recreation resources and unique habitats, non-point source water pollution, storm water management</td>
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<td>Point-source discharges to waters from other than coal mines, discharge of dredge or fill material in waterways, underground or surface petroleum storage tanks, groundwater withdrawal</td>
<td>DEQ, Water Programs*</td>
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<td>Oil and gas activity in Tidewater</td>
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<td>Treatment, storage, disposal or transportation of solid or hazardous waste, landfill activities, incineration of wastes, reclamation of non-hazardous wastes, composting</td>
<td>DEQ, Waste Programs*</td>
</tr>
<tr>
<td>Impact on state forests, Seed Tree Law</td>
<td>Department of Forestry</td>
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<tr>
<td>Effect on fish and endangered animals</td>
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<td>Protection of public or private water supply, drinking water quality, disposal of biosolids</td>
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<td>Protection of historic structures and archaeological resources</td>
<td>Department of Historic Resources</td>
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<td>Construction and disturbances in waterways and wetlands, activities affecting state-owned subaqueous lands</td>
<td>VMRC</td>
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<td>Type of Information Needed</td>
<td>Agency to Contact</td>
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<td>Gas, oil, or coalbed methane exploration or extraction operations, plugging, and reclamation</td>
<td>DMME, Division of Gas and Oil</td>
</tr>
<tr>
<td>Coal mining operations and reclamation, point source discharges to waters from coal mines</td>
<td>DMME, Division of Mined Land Reclamation</td>
</tr>
<tr>
<td>Mineral mining (non fuel) operations and reclamation</td>
<td>DMME, Division of Mineral Mining</td>
</tr>
<tr>
<td>Entrance and access to public highways from mineral extraction sites, use of public highways by trucks, vibration on highway right-of-ways</td>
<td>Virginia Department of Transportation</td>
</tr>
<tr>
<td></td>
<td>* See the Business and Industry Guide to Environmental Permits in Virginia, available from the DEQ.</td>
</tr>
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APPENDIX D

SUBAQUEOUS MINERALS MANAGEMENT PLAN

COMMONWEALTH OF VIRGINIA

Guidelines for Mineral Activities
on State-owned Subaqueous Lands

Prepared by the
VIRGINIA MARINE RESOURCES COMMISSION
in cooperation with the
DEPARTMENT OF MINES, MINERALS AND ENERGY
and the
DEPARTMENT OF GENERAL SERVICES

APPENDIX D
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I. DEFINITIONS

Terms are defined the same as in the State Minerals Management Plan (SMMP).

II. STATUTORY REQUIREMENTS

The Commonwealth of Virginia's requirements for leasing and extraction of minerals on state-owned lands are set forth in law and in this minerals management plan for state-owned uplands and submerged lands. They enable state agencies and institutions to respond consistently and efficiently to requests for mineral surveys, exploration, leasing, and extraction on state-owned lands.

State Subaqueous Minerals Management Plan

The Code of Virginia (§ 28.2-1208) requires that mining, leasing, and extraction activities on state-owned submerged lands be authorized and administered by the Virginia Marine Resources Commission (VMRC), with the approval of the Attorney General and the Governor. The only exceptions are the Back Bay and the North Landing River, which are managed by the Department of Game and Inland Fisheries instead of the VMRC.

The Code of Virginia directs the VMRC, in cooperation with the Department of Mines, Minerals and Energy, and with the assistance of affected state agencies, departments, and institutions, to maintain a State Subaqueous Minerals Management Plan (SSMMP). The VMRC acts as the lead agency over leasing and extraction activities and performs procurement functions in the same capacity as the Department of General Services in the SMMP.

Leases or easements shall be for a period not to exceed five years and may include the right to renew for an additional period not to exceed five years. The lease or easement shall specify the rent royalties and other terms specified by the VMRC. In addition to any other rights, the lease shall authorize the grantees and lessees to prospect for and take from the bottom soil, gas, and other specified minerals. However, no easement or lease may affect or interfere with the rights of the public concerning fishing, fowling, catching and taking oysters and other shellfish from the leased bottoms or waters above.

Leases and easements require the signature of the Attorney General and the Governor. The Secretary of Natural Resources may approve, with the consent of the Attorney General, easements and leases of beds of state waters that are recommended by the VMRC (under Executive Order 88 (01)). All rents or royalties collected from such easements or leases shall be paid into the state treasury and credited to the Public Oyster Rocks Replenishment Fund.
The subaqueous plan contains the same provisions for public hearings and public advertising for competitive bidding or proposals as the SMMP. In addition, it incorporates the existing joint federal-state-local permitting process for activities in state waters.

Persons wishing to extract minerals from state-owned subaqueous lands may obtain either a permit or a lease and a permit from the VMRC. When considering a permit application, the VMRC is guided by the provisions of Article XI, Section I of the Constitution of Virginia and shall consider the public and private benefits of the mining and its effect on:

1. Other reasonable and permissible uses of state waters and state-owned bottom lands;
2. Marine and fisheries resources of the Commonwealth;
3. Tidal wetlands, except when this has or will be determined under the provisions of Chapter 13 of Title 28.2;
4. Adjacent and nearby properties; and
5. Water quality.

The VMRC will consult with other state agencies who may be affected by the operation proposed in a permit application and with DMME, which serves as the mining regulatory authority.

### III. SUBMERGED LAND MINING UNDER THE SUBAQUEOUS MINERALS MANAGEMENT PLAN

The State Subaqueous Minerals Management Plan supplements the State Minerals Management Plan. The Virginia Marine Resources Commission (VMRC) authorizes and oversees mining, leasing, and extraction of minerals on state-owned submerged lands and grants permits for the use of such land use.

Application for a mineral survey or exploration permit or permit to remove landfill material, sand or gravel may be made to the VMRC under the provision of the Code of Virginia § 28.2-1207, while a lease or easement may be granted under § 28.2-1208 and the State Minerals Management Plan.

A § 28.2-1208 easement or lease is needed to obtain oil, gas (except if covered under a Virginia Gas and Oil Board pooling order), minerals or other substances in the beds of the waters outside the Baylor Survey. However, to remove and sell landfill material, sand or gravel, only a § 28.2-1205 permit is required, not a SMMP lease.

Applications to conduct a mineral survey or exploration affecting state waters or state-owned subaqueous land must be submitted to VMRC, Habitat Management Division, on
applicable portions of the joint permit application form described in §§ 28.2-1205 through 1207 of the Code of Virginia. VMRC will forward copies of the completed application to:

- U.S. Army Corps of Engineers
- Department of Mines, Minerals and Energy
- Department of Environmental Quality
- Virginia Institute of Marine Science
- Department of Health, Bureau of Shellfish Sanitation
- Department of Conservation and Recreation
- Local wetlands board(s)

The application will undergo the same public interest review required of any application for a permit to encroach in, on, or over state-owned bottoms pursuant to § 28.2-1208 of the Code. The requirements of the SMMP shall apply and the VMRC shall act in the same manner and capacity as the Department of General Services.

In the case of a nonground-disturbing survey, where no disturbance to state-owned bottoms will occur and no impact to living resources will result, a letter request may be acceptable to VMRC.

The VMRC shall evaluate and review the proposal and comments from each agency to determine if the proposal is in the best interest of the public.

Neither the competitive bidding and proposal processes nor the public hearing requirement shall apply to the extraction of natural gas or oil pursuant to a pooling order issued by the Virginia Gas and Oil Board, unless the well through which the extraction will occur is situated on or over state-owned subaqueous lands.

If the VMRC recommends approving a five-year renewable lease under § 28.2-1208 of the Code, the process outlined in the SMMP will be followed.