VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY	**VPDES PERMITS** **Threatened and Endangered Species Coordination**
To: ☐ DGIF, Environmental Review Coordinator ☒ DCR ☐ USFWS, T/E Review Coordinator **From:** Leah R. Revelle (DEQ – South Central Regional Office) Phone: (434) 582-6219 Email: lrrevelle@deq.virginia.gov	**Date Sent:** **Permit Number:** VA0005827
Facility Name: Town of Blackstone WTP **Contact:** Ron Silverman **Phone:** (434) 292-3172 **Address:** 100 West Elm Street Blackstone, VA 23824	**Location:** Blackstone, VA (Nottoway County) – Building 3430 Garnett Avenue Fort Pickett, VA 23824 **USGS Quadrangle:** Blackstone East **Latitude/Longitude:** Outfall 001 Location is: 37° 02' 00" 77° 57' 00" **Receiving Stream:** UT, Hurricane Branch **Receiving Stream Flow Statistics used for Permit:** See attached memo titled "Planning Statement for VPDES Permit Application Processing DEQ-SCRO". All stream flow statistics used in analyses were 0.0 MGD per the planning statement memo mentioned above.
Effluent Characteristics and Max Daily Flow: See attached Part I.A. pages from previous permit. Permit limits are in the process of being reassessed for this reissuance to ensure that limits remain protective of water quality. Once the draft permit limits are obtained, they will be forwarded for review. The facility is designed for 0.089 MGD (89,000 GPD) of process flow.	**Species Search Results (or attach database report and map):** See attached information regarding DCR database search.

Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL & RECREATIONAL RESOURCES

WebID: W633562234218125000

Client Project Number:

PROJECT INFORMATION

TITLE: Town of Blackstone Water Treatment Plant

DESCRIPTION: Reissuance of permit for industrial discharge resulting from the operation of a municipal water treatment plant with process flow of 0.089 MGD

EXISTING SITE CONDITIONS: Existing facility on site - no upgrades planned

QUADRANGLES: BLACKSTONE EAST

COUNTIES: Nottoway

Latitude/Longitude (DMS): 370220/775646

Acreage: 325

Comments: This is for the reissuance of a VPDES discharge permit for the Town of Blackstone's municipal water treatment plant. No expansions or upgrades are planned at this time for this facility. Permit number for facility is VA0005827. Discharge goes to an unnamed tributary to Hurricane Branch.

REQUESTOR INFORMATION

Priority: No **Tier Level:** 2 **Tax ID:**

Contact Name: Leah R. Revelle

Company Name: DEQ-South Central Regional Office

Address: 7705 Timberlake Road

City: Lynchburg **State:** VA **Zip:** 24502

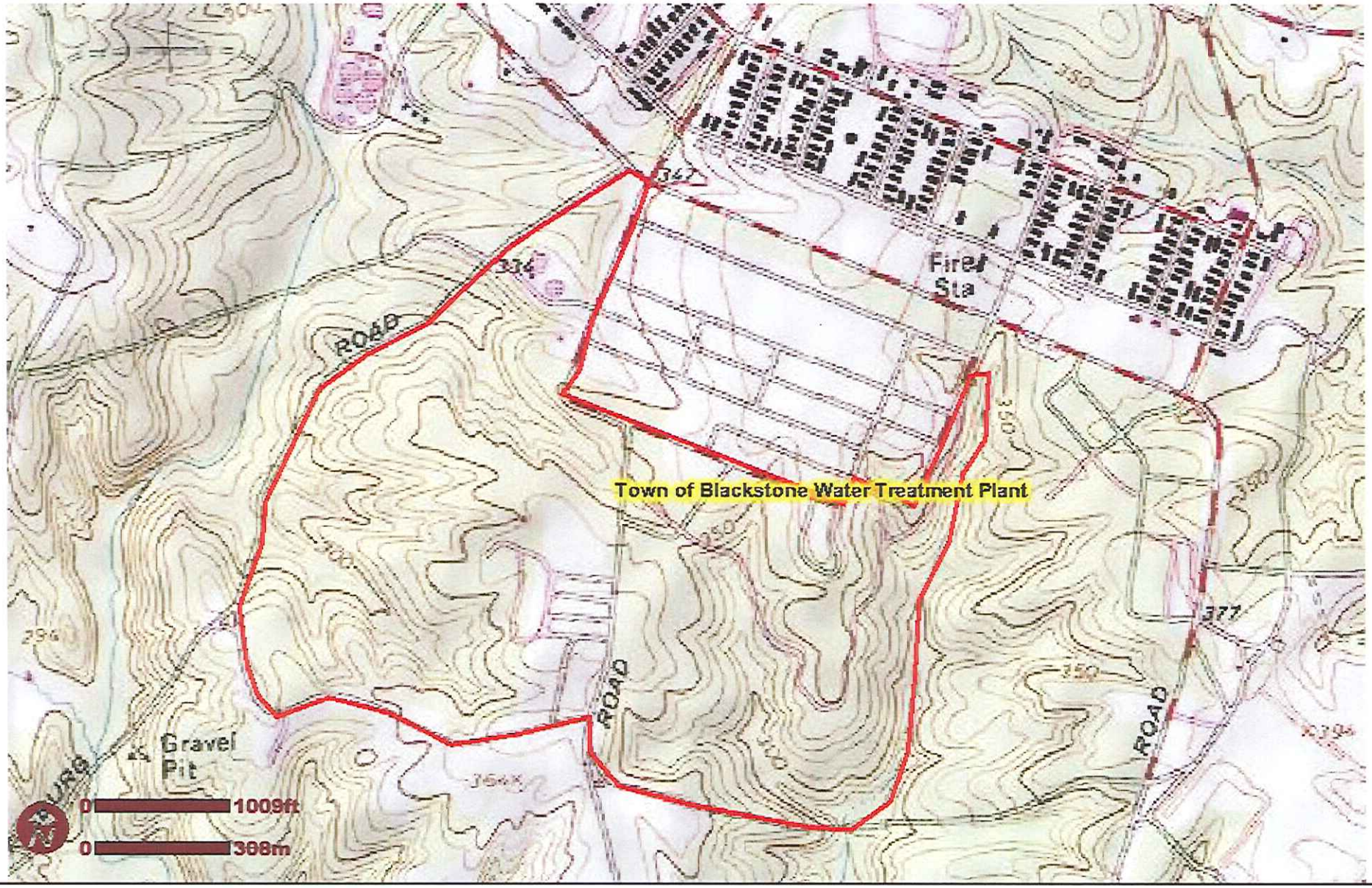
Phone: (434) 582-6219 **Fax:** (434) 582-5125 **Email:** lrrevelle@deq.virginia.gov

Conservation Site Name	Site Type	Brank	Acreage	Listed Species Presence
LONG BRANCH GRANITE FLATROCK	Conservation Site	B4	29	NL
NOTTOWAY BASIN	Conservation Site	B2	4,872	FL
FORT PICKETT AIRFIELD SWALE	Conservation Site	B2	51	NL
FORT PICKETT IMPACT AREA	Conservation Site	B1	12,022	FL
NOTTOWAY RIVER - FORT PICKETT SCU	SCU	B2	193	FL

Natural Heritage Conservation Sites within Search Radius

Site-Name	Group-Name	common-name	scientific-name	GRANK	SRANK	Fed Status	st status	EO Rank	last obs date	precision
FORT PICKETT AIRFIELD SWALE	Natural Community	Coastal Plain / Piedmont Seepage Bog	Coastal Plain / Piedmont Seepage Bog	GNR	SNR			B	1993-07-15	S
FORT PICKETT AIRFIELD SWALE	Vascular Plant	Hairy Seedbox	Ludwigia hirtella	G5	S1			BC	1994-08-09	S
FORT PICKETT IMPACT AREA	Natural Community	Coastal Plain / Piedmont Seepage Bog	Coastal Plain / Piedmont Seepage Bog	GNR	SNR			B	1993-09-07	S
FORT PICKETT IMPACT AREA	Natural Community	Granitic Flatrock	Granitic Flatrock	GNR	SNR			BC	1993-07-08	S
FORT PICKETT IMPACT AREA	Natural Community	Granitic Flatrock	Granitic Flatrock	GNR	SNR			B	1993-09-16	S
FORT PICKETT IMPACT AREA	Natural Community	Loblolly Pine Savanna	Loblolly Pine Savanna	GNR	SNR			A	1993-09-07	S
FORT PICKETT IMPACT AREA	Natural Community	Oak - Hickory Woodland / Savanna	Oak - Hickory Woodland / Savanna	GNR	S1			A	1993-09-16	S
FORT PICKETT IMPACT AREA	Vascular Plant	A Sedge	Carex vestita	G5	S2			B	1993-06-01	S
FORT PICKETT IMPACT AREA	Vertebrate Animal	Bachman's Sparrow	Aimophila aestivalis	G3	S1B		LT	B	1993-05-12	S
LONG BRANCH GRANITE FLATROCK	Natural Community	Granitic Flatrock	Granitic Flatrock	GNR	SNR			C	1992-06-26	S
NOTTOWAY BASIN	Vascular Plant	Michaux's Sumac	Rhus michauxii	G2G3	S1	LE	LT	A	2003-01	S

Natural Heritage Resources within Search Radius



Quads: BLACKSTONE EAST

Counties: Nottoway

Town of Blackstone Water Treatment Plant

Company: DEQ-South Central Regional Office

Lat/Long: 370220/775646

L. Preston Bryant, Jr
Secretary of Natural Resources

Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

The project mapped as part of this report has been searched against the Department of Conservation and Recreation's Biotics Data System for occurrences of natural heritage resources from the area indicated for this project. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics files, NATURAL HERITAGE RESOURCES HAVE BEEN DOCUMENTED within two miles of the indicated project boundaries.

You have submitted this project to DCR for a more detailed review for potential impacts to natural heritage resources. DCR will review the submitted project to identify the specific natural heritage resources in the vicinity of the proposed project. Using the expertise of our biologists, DCR will evaluate whether your specific project is likely to impact these resources, and if so how. DCR's response will indicate whether any negative impacts are likely and, if so, make recommendations to avoid, minimize and/or mitigate these impacts. If the potential negative impacts are to species that are state- or federally-listed as threatened or endangered, DCR will also recommend coordination with the appropriate regulatory agencies: the Virginia Department of Game and Inland Fisheries for state-listed animals, the Virginia Department of Agriculture and Consumer Services for state-listed plants and insects, and the United States Fish and Wildlife Service for federally listed plants and animals. If your project is expected to have positive impacts we will report those to you with recommendations for enhancing these benefits.

Please allow up to 30 days for a response.

We will review the project based on the information you included in the Project Info submittal form, which is included in the report that follows. Often additional information can help us make a more accurate and detailed assessment of a project's potential impacts to natural heritage resources. If you have additional information that you believe will help us better assess your project's potential impacts, you may send that information to us. Please refer to the project Title (from the first page of this report) and include this pdf file with any additional information you send us.

Thank you for submitting your project for review to the Virginia Natural Heritage Program through the NH Data Explorer. Should you have any questions or concerns about DCR, the Data Explorer, or this report, please contact the Natural Heritage Project Review Unit at 804-371-2708.
its.

L. Preston Bryant, Jr.
Secretary of Natural Resources

Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

217 Governor Street
Richmond, Virginia 23219-2010
(804) 786-7951 FAX (804) 371-2674

October 6, 2008

Leah Revelle
DEQ-SCRO
7705 Timberlake Road
Lynchburg, VA 24502

Re: Town of Blackstone Water Treatment Plant

Dear Ms. Revelle:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Nottoway River- Fort Pickett Stream Conservation Unit is downstream of the water treatment plant discharge. Stream Conservation Units (SCUs) identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. Stream Conservation Units are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. Brank is a rating of the significance of the site based on presence and number of natural heritage resources; on a scale of 1-5, 1 being most significant. This site has been ranked as a B2 conservation site, which indicates it is of very high significance. The natural heritage resources associated with this site are:

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	FWS_SOC
Alasmidonta heterodon	Dwarf wedgemussel	G1G2	S1	LE	LE	
Elliptio lanceolata	Yellow lance	G2G3	S2S3		SC	SOC
Freshwater Mussel Concentration Area	Freshwater Mussel Concentration Area	G3	SNR			
Fusconaia masoni	Atlantic pigtoe	G2	S2		LT	SOC
Lampsilis cariosa	Yellow lampmussel	G3G4	S2		SC	
Lasmigona subviridis	Green floater	G3	S2		LT	
Necturus punctatus	Dwarf waterdog	G4	S2S3			
Percina rex	Roanoke logperch	G1G2	S1S2	LE	LE	
Stylurus laurae	Laura's clubtail	G4	S2			

Considered good indicators of the health of aquatic ecosystems, freshwater mussels are dependent on good water quality, good physical habitat conditions, and an environment that will support populations of host fish species (Williams et al., 1993). Because mussels are sedentary organisms, they are sensitive to water quality degradation related to increased sedimentation and pollution. They are also sensitive to habitat destruction through dam construction, channelization, and dredging, and the invasion of exotic mollusk species.

The Dwarf waterdog, a state rare amphibian, inhabits small, slow-flowing streams in the Chowan River system where the juveniles burrow in the silty bottoms. In the winter, the adults congregate in leaf beds. Waterdogs differ from other large salamanders by having four toes on each hind foot and conspicuous gills that are retained throughout life (Martof et al., 1980). In Virginia, the Dwarf waterdog is currently known from seven locations.

As mentioned above several natural heritage resources are downstream of the proposed outfall and DCR is concerned about impacts to water quality. Due to the legal status of Green floater, Atlantic pigtoe, Roanoke logperch and Dwarf wedgemussel, DCR recommends coordination with VDGIF and USFWS to ensure compliance with species protected legislation.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

Our files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters, that may contain information not documented in this letter. Their database may be accessed from www.dgif.virginia.gov/wildlife/info map/index.html, or contact Shirl Dressler at (804) 367-6913.

Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,

S. Rene' Hypes
Project Review Coordinator

CC: Ernie Aschenbach, VDGIF
Tylan Dean, USFWS

Literature Cited

Williams, J.D., M.L. Warren, Jr., K.S. Cummings, J.L. Harris, and R.J. Neves. 1993. Conservation status of freshwater mussels of the United States and Canada. Fisheries 18: 6-9.

Revelle,Leah

From: nhreview nhreview [nhreview.po-richmond.dom-richmond@dcr.virginia.gov]
Sent: Monday, October 06, 2008 9:03 AM
To: Revelle,Leah
Cc: Projectreview@dgif.Virginia.Gov; Tylan_Dean@fws.gov
Subject: Town of Blackstone WTP

Attachments: 54183,DEQ VPDES Town of Blackstone Water Treatment Plant.pdf

54183,DEQ VPDES Town of Blacks...

Ms. Revelle,

Please find attached the DCR-DNH comments for the above referenced project. The comments are in pdf format and can be printed for your records. Also species rank information is available at http://www.dcr.virginia.gov/natural_heritage/help.shtml for your reference.

Please send a confirmation e-mail upon receipt of our comments. Let us know if you have any questions.

Thank you for your request.

From: Cindy_Kane@fws.gov
Sent: Wednesday, October 08, 2008 2:15 PM
To: Revelle,Leah
Cc: Hypes, Rene (DCR); Daub,Elleanore; Aschenbach, Ernie (DGIF); Tylan_Dean@fws.gov
Subject: Blackstone WTP (Permit No. VA0005827)

Leah,

Would you please send the coordinates of the discharge to the UT to Hurricane Branch for the subject line permit?

Thanks very much, Cindy Kane

Cindy Kane
U.S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, Virginia 23061

tel: 804 693-6694, ext.113
fax: 804 693-9032
email: cindy_kane@fws.gov
Visit us at http://www.fws.gov/northeast/virginiafield/

"Revelle,Leah" <lrrevelle@deq.virginia.gov>

10/07/2008 08:29 AM

To "Hypes, Rene \(DCR\)" <Rene.Hypes@dcr.virginia.gov>

cc "Daub,Elleanore" <emdaub@deq.virginia.gov>, "Aschenbach, Ernie \(DGIF\)" <Ernie.Aschenbach@dgif.virginia.gov>, <Tylan_Dean@fws.gov>

Subject DEQ Response to DCR T&E Comments for Blackstone WTP (Permit No. VA0005827)

Dear Ms. Hypes -

Thank you for your response to the Threatened and Endangered Species query for the Town of Blackstone's Water Treatment Plant.

We have reviewed and considered the comments provided by DCR in your letter dated October 6, 2008 and offer the following response:

The Town of Blackstone's Water Treatment Plant is an existing facility that has been in operation for quite some time. This facility discharges to the unnamed tributary to Hurricane Branch on an intermittent basis. They may have a discharge only once or twice every three months, or they may go a whole calendar quarter without a discharge to state waters. Under normal circumstances all flows and solids are pumped to the Town of Blackstone's Waste Water Treatment Plant via a gravity sewer. In the event of a discharge, wastewater from the water treatment process is dechlorinated and discharged as permitted. In addition to the intermittent nature of the discharge, this facility is not planning any expansions or upgrades to the plant at this time. Also, the limits for this permit have been reassessed and remain protective of water quality. For these reasons, we feel that the discharge from this facility (when it occurs) should not adversely affect the natural heritage resources mentioned in your October 6, 2008 letter.
Also, please note that this permit was not included on DGIF's review list for 2009 reissuances; therefore, up to this point, there has been no coordination with DGIF (or the USFWS) on this permit reissuance.

Please feel free to contact me at (434) 582-6219 or via email at lrrevelle@deq.virginia.gov should you have additional questions regarding this permit reissuance.

Thank you,

Leah R. Revelle
Environmental Engineer
VA DEQ - South Central Regional Office
7705 Timberlake Road
Lynchburg, VA 24502
(434) 582-6219
lrrevelle@deq.virginia.gov

From: Revelle,Leah
Sent: Thursday, October 23, 2008 3:25 PM
To: 'Cindy_Kane@fws.gov'
Cc: Goode,Robert; Daub,Elleanore
Subject: Blackstone WTP Permit Reissuance (VA0005827)

Attachments: 05827_DRAFT INDUSTRIAL EFFLUENT LIMITATIONS.doc
Cindy –

I've attached the draft permit limitations page for the Blackstone WTP. The following is a narrative of the WTP processes, which I am using in the fact sheet:

"This plant produces waste through backwashing of filters, rewashing filters, and cleaning of sedimentation basins. This waste is discharge to the settling pond/lagoon to allow for the solids to settle and to accumulate in the pump pit. Under normal operations, all flows and solids will be pumped into the gravity sewer where it flows to the Town's WWTP. In the event of problems related to the primary system, waste would fill the basin and the supernatant would be dechlorinated and discharged as permitted. The WTP pumps the raw water from the Fort Pickett Reservoir to the plant's Earthation basin, then to the flash mix basin for chemical additions. Further treatment includes flocculation, sedimentation, filtration, chlorination, etc."

I also double checked with WTP personnel regarding how they handle any sludge generated by the treatment processes. As we discussed on the phone earlier this morning all sludge volumes generated at the WTP are pumped to the WWTP. In terms of how the WTP discharges, they have a floating weir in their sedimentation basin, and when the wastewater gets to a certain level in the basin it discharges to the receiving stream. The WTP personnel confirmed that this was a slow discharge, and they are discharging only the supernatant from the basin. Again, this may only happen two or three times in a calendar quarter. Please let me know if you have any other questions concerning this permit. You can reach me via email at lrrevelle@deq.virginia.gov.

Thanks,

Leah R. Revelle

Environmental Engineer
VA DEQ - South Central Regional Office
7705 Timberlake Road
Lynchburg, VA 24502
(434) 582-6219
lrrevelle@deq.virginia.gov

Re Blackstone WTP VPDES (VA0005827) Permit Reissuance
From: Cindy_Kane@fws.gov
Sent: Thursday, November 06, 2008 2:06 PM
To: Revelle,Leah
Subject: Re: Blackstone WTP VPDES (VA0005827) Permit Reissuance

Attachments: 05827_Flow Data from Bench Sheets.xls

Leah,

Your reply below about the sludge under no circumstances being discharged and the comment about the cleaning of the clearwells and supernantant is new information to me and, in combination with things we discussed previously by phone, does answer my remaining questions regarding the characterization of the discharge.

As always, the USFWS Environmental Contaminants Branch is interested in the contaminants that are discharged in wastewaters and any potential effects to aquatic federally listed species that may be impacted by the discharge.
With freshwater mussels, as you know, that faunal group can not move out of the mixing zone of a discharge. So, we are often looking at the species, the magnitude, duration and frequency of a discharge, mixing zone length,
the pollutants present in the discharge etc. Our program is concerned
with all federally listed species, plants, mammals, mussels, fish isopods, etc.

The biota in a stream does not respond only to a volume of flow, they respond to the load of pollutant in that flow. So an average flow, calulated over a quarter, does not tell us much about the pollutant load.
But it does provide a information about the flow.

Thank you. Cindy Kane

Cindy Kane
U.S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, Virginia 23061

tel: 804 693-6694, ext.113
fax: 804 693-9032
email: cindy_kane@fws.gov
Visit us at http://www.fws.gov/northeast/virginiafield/

"Revelle,Leah"
<lrrevelle@deq.virginia.gov>
11/06/2008 01:22 PM

To
<Cindy_Kane@fws.gov>
cc
Subject
Blackstone WTP VPDES (VA0005827) Permit Reissuance

Cindy -

As previously discussed, the discharge from the Blackstone WTP is intermittent in nature. They may only discharge a couple of times during a calendar quarter, but they may also go an entire quarter (or several consecutive quarters) without a discharge to the receiving stream. In terms of the volume of their discharges, I calculated a long-term average and a maximum flow from the flow data submitted with quarterly monitoring reports over the last five years. The long-term average flow was calculated as
0.374 MGD and the maximum flow was calculated as 1.688 MGD. I have attached an Excel spreadsheet showing their flow data over the last five years, just in case this information helps to answer some of your questions regarding the volume of their discharges. Under most circumstances, the discharge is routed to the WWTP for final treatment and disposal. I understood from the permittee that they may have a discharge only when they are cleaning their clearwells (which I understand holds their finished water) or when the primary system (routing everything to the WWTP) cannot be utilized. The discharge would be routed to their sedimentation pond, and the supernatant would be discharged as permitted. The WTP personnel confirmed that this was a slow release to the receiving stream. Again, sludge which results from the treatment processes is, under no circumstances, discharged to the receiving stream - it is all sent, via a gravity sewer, to the WWTP for final treatment and disposal. The draft permit limits have been reassessed for this reissuance and continue to be protective of water quality.

What are the specific questions that USFWS has in regards to T&E species? I have finished drafting the permit for this facility, and am planning to send it out today for owner and EPA review and approval. In order to get the permit reissued well ahead of the permit expiration date, and to meet internal and regulatory deadlines, I need to continue to move forward with permit processing. A 30-day public comment period will be established for this permit, and you are also welcome to submit additional comments during that time. Once I have a better idea of when the 30-day comment period will be, I will let you know.

I hope that the information which I have provided here (and previously) has helped to answer some of the questions that you had regarding this facility.

Thanks,

Leah R. Revelle
Environmental Engineer
VA DEQ - Blue Ridge Regional Office
7705 Timberlake Road
Lynchburg, VA 24502
(434) 582-6219
lrrevelle@deq.virginia.gov
(See attached file: 05827_Flow Data from Bench Sheets.xls)

Blackstone WTP VPDES VA 0005827) permit re-issuance
From: Cindy_Kane@fws.gov
Sent: Wednesday, November 05, 2008 2:37 PM
To: Revelle,Leah
Subject: Blackstone WTP VPDES VA 0005827) permit re-issuance

Leah,

Do you have any more information on the frequency, duration, volume and characteristics of the discharge to the UT to Hurricane Branch? Also, specifics on the nature of the discharge would be helpful for us to make our final comments on the permit.

I am willing to have a three way call with the permittee and you (for DEQ) to ask the questions that the USFWS has directly. Would that be helpful?
Cindy

Cindy Kane
U.S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, Virginia 23061

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fax: 804 693-9032
email: cindy_kane@fws.gov
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