

**FINAL FACT SHEET
GENERAL SERVICES ADMINISTRATION
WEST HEATING PLANT, WASHINGTON, DC**

NPDES PERMIT NUMBERDC0000035

April 25, 2012

1. NOTICE OF INTENT TO ISSUE PERMIT

The United States Environmental Protection Agency, Region III, (EPA) has made a decision to reissue the National Pollutant Discharge and Elimination System (NPDES) permit for the West Heating Plant which is operated by the United States General Services Administration (GSA) and located in the District of Columbia. This facility is classified as a minor permit under the NPDES categorization system. The permit regulates the discharge of two waste streams. The first discharge is steam condensate leakage which is formed on pipes in the tunnel, mixes with storm water also from the tunnel and collects in a sump prior to discharge. The second waste stream is storm water from plant roof drains. All waste streams discharge to Rock Creek. The permit requirements are based on the Clean Water Act (33 U.S.C. § 1251 et seq.), hereinafter referred to as the Act, and NPDES regulations (40 C.F.R. Parts 122, 124, 125 and 131).

2. PERMITTING AUTHORITY

The NPDES permitting authority is the United States Environmental Protection Agency, Region III, Office of NPDES Permits and Enforcement, 1650 Arch Street, Philadelphia, PA 19103. The permit writer is Mary Letzkus, NPDES Permits Branch, (215) 814-2087.

3. PERMITTEE

The permittee is the United States General Services Administration (GSA), whose offices are located at 13th and C Streets, SW, Washington, DC 20407. The West Heating Plant is located at 1051 29th Street, NW, Washington, DC 20407. The contact person for GSA is George Korvah, Manager, Environmental and Water Chemistry Branch, Heating Operation and Transmission District, (202) 690-9719.

4. WASTES OR POLLUTANTS DISCHARGED

As noted above, there are two waste streams that are discharged from this facility. Ground water seepage from the steam tunnel which collects with steam condensate in a sump located at the terminus of the steam tunnel. The suspected source of the groundwater is inflow from Rock Creek which flows directly overhead of the steam tunnel. The steam condensate collects on the steam pipes and drains with the ground water to the sump. This discharge is of short duration and only occurs during the coldest months, and is collected in a sump and

discharged together with the groundwater collected from the tunnel. The second waste stream is stormwater which is flow from roof drains. GSA has provided a certificate of non-exposure for this stormwater verifying that the stormwater from the roof does not mix with any hazardous wastes. All waste streams discharge to Rock Creek.

Daily monitoring data collected during the five year term of the last NPDES permit, which was issued in 2007 show consistent discharge results, with the exception of one outlier for TSS in September of 2008. The following table is a summary of the highest and lowest recorded values for each of the permitted pollutants.

Pollutant	Permit Limit		DMR Recorded Range		Sample Frequency
	Monthly ave	weekly ave	High (*monthly ave)	Low (**weekly ave)	
Flow	Report in gallons per minute		150	0.072	2 x per month
Oil and Grease	10 mg/l*	15 mg/l**	8.8 mg/l*/12mg/l**	2.5 mg/l*/ 5mg/l**	2 x per month
TSS	30 mg/l*	100 mg/l**	34 mg/l* 34 mg/l**	1 mg/l* 1mg/l**	2 x per month
Temperature	DC WQS		80.6°F	28.8°F	1 x per month
pH	6.0 su - 8.5 su		7.1	8.1	2 x per month

Analytical data reported on the permit application is as follows:

Biochemical Oxygen Demand	> 5 mg/l
Chemical Oxygen Demand	19 mg/l
Total Organic Carbon	2.0 mg/l
Total Suspended Solids (TSS)	3.0 mg/l
Ammonia	0.3 mg/l
Flow	0.0045 mgd
Temperature (winter)	27.0° C/ 80.6°F
Temperature (summer)	20.7° C/ 69.3°F
pH	7.36 – 8.0 standard units

As noted above, the only data outlier during the 5 year pendency of the 2007 issued permit, is the September 2008 value reported for TSS. The same result was reported for the monthly average and weekly average, which suggests that only one sample result was recorded that month. The next highest TSS result reported was 21 mg/l for a weekly average which was recorded in August of 2010, which is still higher than the other 5 years worth of data, but still within the permitted limits.

5. BRIEF DESCRIPTION OF ACTION

EPA Region III has made the decision to reissue a National Pollutant Discharge Elimination System (NPDES) permit for the GSA West Heating Plant. This permit establishes

permit limits and monitoring requirements for the discharge of ground water and steam condensate leakage which collect in a steam tunnel sump. The discharge from the steam tunnel to Rock Creek is 41,000 gallons per day.

Stormwater flow is intermittent so no estimate is provided for flow. GSA has sent a statement of non-exposure to EPA stating that the stormwater from the West Heating Plant roof drains do not come in contact with process wastes. Both of the flows, from the tunnel and from the roof drains are discharged from plant outfall 002 to Rock Creek.

The West Heating Plant is a back-up plant that has not operated since September of 1997. It serves as a potential back-up plant in the GSA HOTD Operational Plan. This property is on a list for government owned property disposal.

The West Heating Plant is one of two plants which, when operating, can supply steam to the District of Columbia heating system. Fuels include gas and oil. The peak steam production is approximately 600,000 pounds per month; however, as reported on the applicant's 2006 and 2010 NPDES permit applications, the plant has not operated since September of 1997.

6. NPDES PERMIT LIMITS

Permit limits and conditions for total suspended solids (TSS), oil and grease, temperature and pH have been carried over from the previous permit. The NPDES permit limit for TSS is technology-based. Since EPA has not promulgated effluent limits for the heating plant point source category, technology based limits for this permit have been adopted from the closest available category, the Steam Electric Power Generating Point Source Category found at 40 CFR 423.

Oil and grease, temperature and pH limits are based upon DC water quality standards. The temperature requirement for this permit has been converted from Fahrenheit to Celsius. The limit for oil and grease remains the same as the previous permit, the monthly average is 10 mg/l; and the weekly average is 15 mg/l.

The monitoring and frequency requirements have also been carried over from the last permit. As noted in the table above, monitoring limits are two times per month for all constituents with the exception of temperature which is once per month.

7. CONSULTATION WITH SERVICES

Threatened and Endangered Species

The National Marine Fisheries Service (NMFS) has notified EPA that its principle area of concern for permits issued in the District are to ensure the protection of the endangered shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon (*Acipenser oxyrinchus*). The

conditions in Rock Creek are not compatible with the preferred habitat for sturgeon and none is expected to be found there. However, shortnose sturgeon have been captured in the Potomac River including the waters of the District. There is an anecdotal take of a sturgeon (not identified as shortnose or Atlantic) reported near Fletcher's Boathouse in 1999. Fletcher's Boathouse is located upstream from the confluence of Rock Creek and the Potomac River. Twelve shortnose sturgeon have been captured in the Potomac River since 1996, but these captures have been downstream of the District's waters in the waters under the jurisdiction of Virginia and Maryland.

Ongoing tagging and telemetry studies of shortnose sturgeon in the Potomac River began in 2004. In 2005 and 2006, females with late stage eggs were captured, tagged and tracked. The 2005 female migrated upstream in the spring of 2006 to a 2-km reach of the habitat determined to be suitable for spawning. This female arrived at the Fletchers Marina on April 9, 2006 and remained within a 2-km reach for 6 days. There is no evidence that this female completed spawning during this time.

Water Quality in Rock Creek

Pursuant to the DC Water Quality Standards (WQS) Rock Creek has received the designation of Class A or suitable for primary contact recreation. Because these waters do not meet this standard much of the time, the actual use of the waterbody is Class B or suitable for secondary contact recreation and aquatic enjoyment.

Rock Creek is listed on the District of Columbia's Section 303(d) list of impaired waters. The list divides Rock Creek into two segments and the GSA facility is located in the Lower Rock Creek. Lower Rock Creek is 3.6 miles long and extends from the confluence of Rock Creek and the Potomac River to the National Zoo below Pierce Mill Dam; the approximate lower quarter mile of Rock Creek is tidal. Lower Rock Creek is designated as a "special water of the District of Columbia" in accordance with the District's WQS. The District's 303(d) lists Lower Rock Creek as impaired by metals, organics and fecal coliform. The 303 (d) list does not specifically identify the organics and metals impairing Rock Creek's water quality.

In 2004, EPA approved the Rock Creek TMDLs for metals (copper, zinc, lead and mercury), organics (polyaromatic hydrocarbons) and fecal coliform. Impairment is attributed to discharges from the city's combined sewer overflows (CSOs) and non-point source discharges and improvements are expected to be attained with implementation of the District's Long Term Control Plan.

Analysis of Permit Conditions

No mixing zones have been requested or provided for any limits in this permit; the point of compliance is at the end of the pipe which is the point of discharge to Rock Creek.

The NPDES permit application estimates the flows of the discharges as follows:

Outfall Number	Operation	Average Flow (gallons/day)
002	Stormwater from Roof	Intermittent
002	Groundwater from Tunnel	2,500
002	Steam condensate leakage	2,000

The Rock Creek watershed in the District is heavily urbanized. Stream flow for Rock Creek is susceptible to the episodic nature of rainfall and runoff. In 2002, DC WASA (now DC Water) provided an analysis of the rainfall records from the Ronald Reagan National Airport for its Long Term Control Plan. This report provides an analysis of Rock Creek flows for three consecutive years 1988 (a dry year), 1989 (a wet year) and 1990 (an average year). Rock Creek flows for these years are presented as follows:

Year	Total Precipitation (in)	Days of Precipitation	Average Flow in Rock Creek (gallons/day)
1988	31.7	107	36,581,536
1989	50.3	128	52,868,722
1990	40.8	127	50,348,086

The newer Chesapeake Bay TMDL model uses a default value for the flow of Rock Creek at the location of the GSA discharge to Rock Creek as 487,000 gallons/day.

Conclusion

As can be seen from the above, even using the conservative default flow for Rock Creek of 487,000 gallons/day, the 4,500 gallon/day flow from the facility is not significant. Analysis of the discharge from the DMRs (see section 4 above) and the permit application (see section 4 above) show very low levels of contaminants in the discharge. Once the discharge has mixed with the waters of Rock Creek and again with the waters of the Potomac River, the dilution is orders of magnitude greater. EPA concludes that given small amount of pollutants in this discharge and the dilution of the very small discharge versus the significantly larger stream flow volume, this discharge is not likely to cause an adverse affect on either shortnose or Atlantic sturgeon in the Potomac River.

By letter dated March 29, 2012, NMFS notified EPA that it concurs with EPA's determination that the discharges from the facility are not likely to adversely affect species listed under the Endangered Species Act (ESA) by the National Oceanographic and Atmospheric Administration's (NOAA) NMFS.

8. TMDLs

In 2004, EPA approved the Rock Creek TMDLs for metals (copper, zinc, lead and mercury), organics (polyaromatic hydrocarbons) and fecal coliform. Impairment is attributed to discharges from the city's combined sewer overflows (CSOs) and non-point source discharges and improvements are expected to be attained with implementation of the District's Long Term

Control Plan. Additional controls for the GSA West Heating Plant were considered when

NPDES permit DC0000035 was issued in 2007. No new TMDLs for Rock Creek have been developed or approved since that time, so no additional TMDLs were considered for this permit reissuance.

9. PUBLIC NOTICE AND COMMENT

This draft permit was offered for a 30-day public comment period beginning on March 15, 2012, and ending on April 13, 2012. No comments were received from the public during the public comment period. Likewise, no comments were received from the permittee or environmental groups. NMFS concurred with EPA's determination that the discharges from the facility are not likely to adversely affect listed species (shortnose and American sturgeon).

10. District of Columbia Department of Environment 401 Certification:

Notice of this potential permit reissuance was provided to The District of Columbia Department of the Environment for certification on March 7, 2012. By letter dated March 12, 2012, the District certified that the draft permit will comply with the District's water quality standards and that the certification will become final upon issuance of the final permit. On [date] the District reaffirmed that the permit complies with the District's water quality standards.