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THIS IS TO CERTIFY THAT THE FOLLOWING ELECTRONIC RECORDS ARE TRUE AND ACCURATE REPRODUCTIONS OF THE ORIGINAL RECORDS OF JAMES CITY COUNTY GENERAL SERVICES DEPARTMENT- STORMWATER DIVISION; WERE SCANNED IN THE REGULAR COURSE OF BUSINESS PURSUANT TO GUIDELINES ESTABLISHED BY THE LIBRARY OF VIRGINIA AND ARCHIVES; AND HAVE BEEN VERIFIED IN THE CUSTODY OF THE INDIVIDUAL LISTED BELOW.

BMP NUMBER: 99140

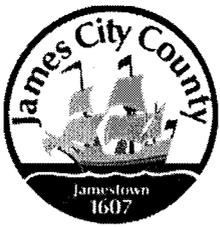
DATE VERIFIED: March 21, 2012

QUALITY ASSURANCE TECHNICIAN:

Leah Hardenbergh

Leah Hardenbergh

LOCATION: WILLIAMSBURG, VIRGINIA



Stormwater Division

MEMORANDUM

DATE: March 11, 2010
TO: Michael J. Gillis, Virginia Correctional Enterprises Document Management Services
FROM: Tina Cantwell, Stormwater
PO: 270712
RE: Files Approved for Scanning

General File ID or BMP ID: 99140

PIN: 5130100001

Subdivision, Tract, Business or Owner

Name (if known):

Anheuser Busch

Property Description:

General File

Site Address:

7801 Pocahontas Trail

(For internal use only)

Box 11

Drawer: 6

Agreements: (in file as of scan date) N

Book or Doc#:

Page:

Comments

Contents for Stormwater Management Facilities As-built Files

Each File is to contain:

- 1. Maintenance Agreement
- 2. Construction certification
- 3. As-Built plan
- 4. Design Calculations
- 6. Correspondence
- 7. Inspection records
- 8. Miscellaneous

BUSCH CORPORATE CENTER · WILLIAMSBURG

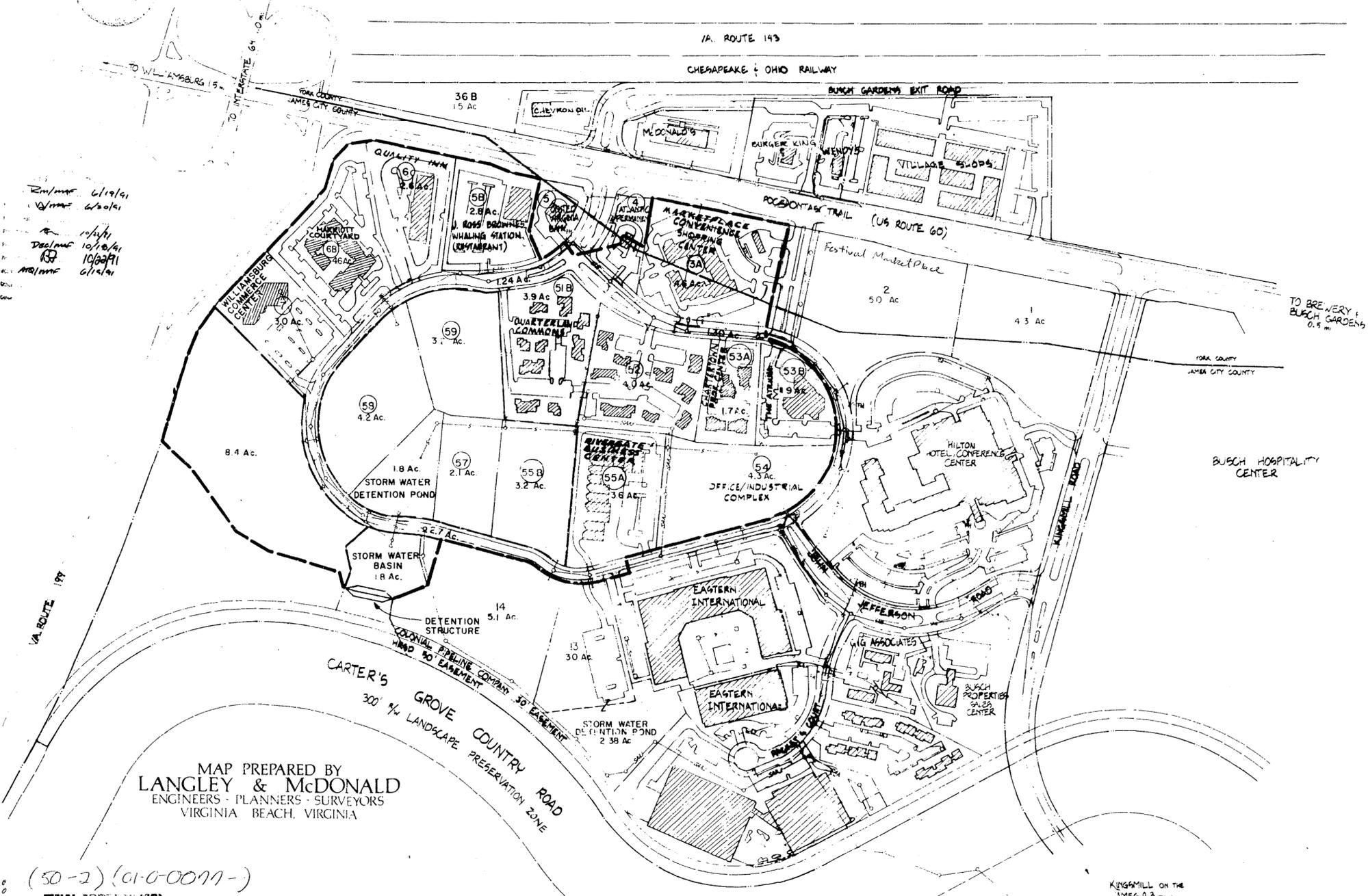
JAMES CITY COUNTY · YORK COUNTY · VIRGINIA

DRAINAGE AREAS

STORMWATER MANAGEMENT FACILITIES

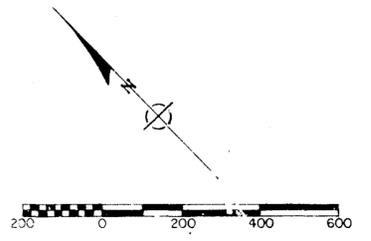
RECEIVED
MAY 1991

Revised 6/19/91
 12/10/91
 Declared 10/10/91
 10/20/91
 Approved 6/15/91



LOCATION MAP
NT 6

- LEGEND**
- PREVENT
 - STRUCTURES
 - PROPERTY LINES
 - COUNTY LINE
 - STORM SEWER
 - SANITARY SEWER
 - WATER LINE
 - HYDRANT
 - EASEMENT
 - MANHOLE
 - DRAIN NET
- ALL AREAS ARE APPROXIMATE

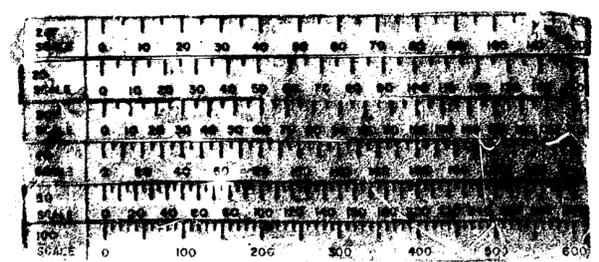


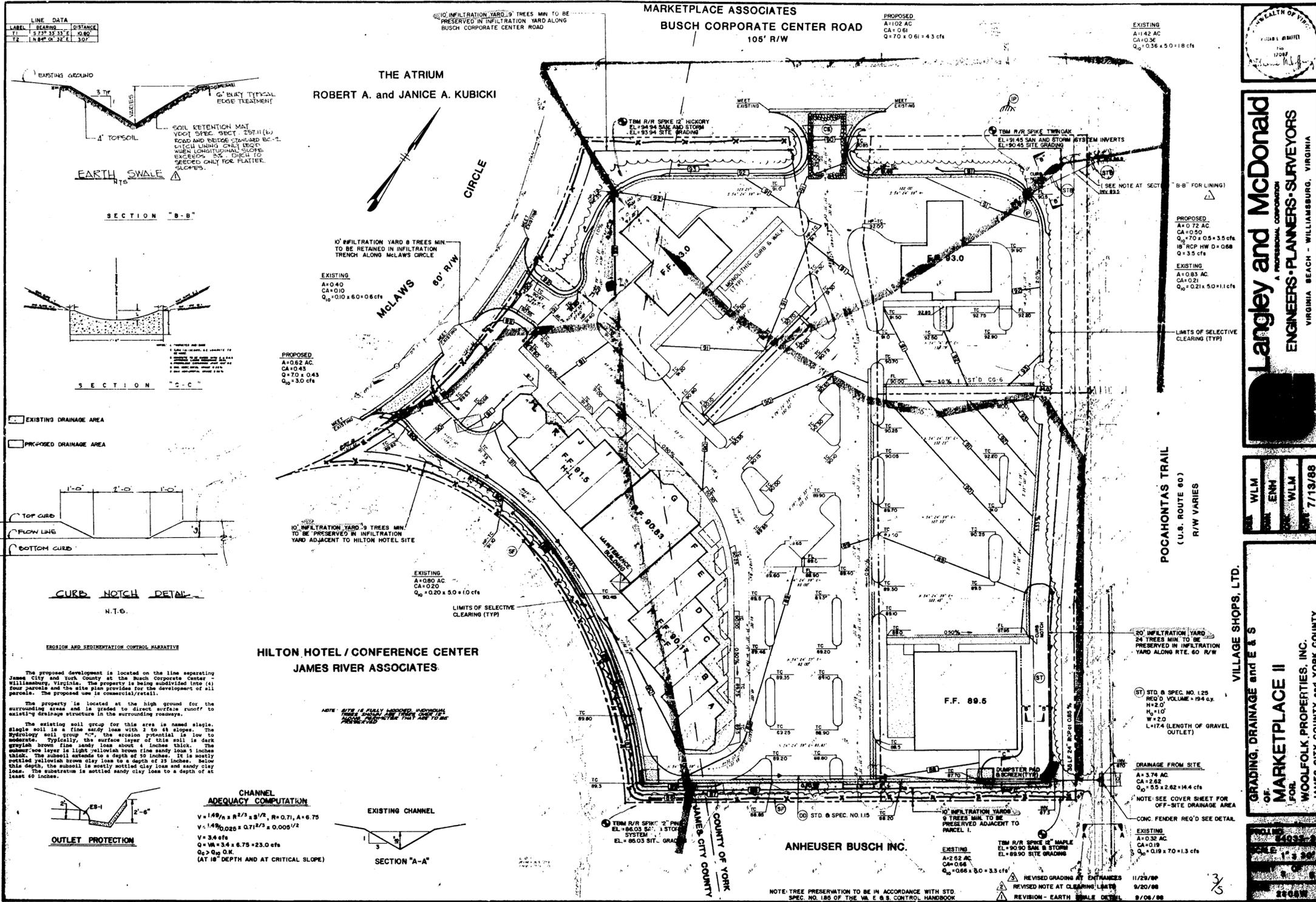
MAP PREPARED BY
LANGLEY & McDONALD
 ENGINEERS · PLANNERS · SURVEYORS
 VIRGINIA BEACH, VIRGINIA

CR: (50-2)(01-0-0077-)
 FINAL ADJUSTED (55)
 RECEIVED 1/13/92
 60080

KINGSMILL ON THE JAMES 0.3 mi.

L M Proj. # 74069R53 DWG. # 3923AW





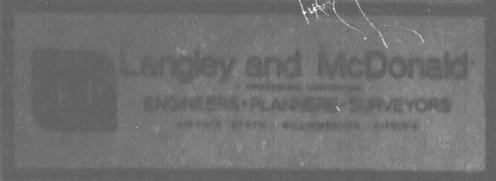
FESTIVAL MARKETPLACE
NO BMP ONSITE; GPIN 502090002B

	Anheuser Busch Brewery	
	<u>SITE</u>	<u>IMPERV</u>
SP-121-99		
SP-13-00		
PLANT PARCEL	90.2	65.72
PARCEL D-1	17.6	0.629
PARCEL D-2	25.9	11.678 12.5
	<u>133.7</u>	<u>78.849</u>

0.05
 9.95
1.718
 11.678

$$\text{OVERALL} = \frac{78.849}{133.7} = 58.97\%$$

$$\text{PLANT} = \frac{65.72}{90.2} = 72.86\%$$



Subject BECHTEL McLAWS Circle
Detention Pond Modification #1
 Computed By SAC Checked By _____

Project No. 27000 53
 Client EP
 Date 9/22/91 Sheet No. 1

68

Total Drainage Area = 58 Acres (Digitized from drawing 37-30W)

Presently Developed Area = 4.4 Acres (Approx. 60% Impervious)

Future Development Area = 26.6 Acres

= 1.8 Acres McLAWS Circle Detention Pond

= 1.8 Acres Future Detention Pond Site Across McLAWS Circle
 23.0 Acres Developable Area

Under current County regulations, the remaining 23.0 acres may be developed at 40% impervious cover and leave 10% green area. We assume that 25% of the green area will be left as natural open space.

40% of 23.0 acres = 9.2 acres green area

25% of 9.2 acres = 2.3 acres natural open space

23 acres + 23.0 acres = 10% natural open space

Consideration # 1 - Pursuant to the County's Ten Point BMP System, Natural Open Space Credits are calculated at 0.1 point per 1% natural open space, therefore, 10% natural open space yields 1 point. In order to develop this land in accordance with the County's Ten Point BMP System, a nine point BMP serving the 23.0 acres would be necessary.

9 Point BMP - Extended Dry Detention - Runoff Volume Produced by 1.0 inch Detained 24 hr with subsoil mass in bottom stage.

A = 26.6 ac
 $I = (2.0 \times 0.6) / 24$
 $R_v = 0.05 + 0.009 I$
 $R = 1.0 \text{ inch}$
 $R_{in} = 0.45 \text{ inch}$
 $Vol = [(R)(R_v) / 12] A$
 $= 50,210 \text{ CF}$
 $Vol_0 = [(R_{in})(R_v) / 12] A$
 $= 22,595 \text{ CF}$

G+w File - Busch Corporate Center
 McLAWS Circle (outparcels)

$Vol = Vol_0 = 27,615 \text{ CF released over 24 hrs} = 0.34 \text{ FS}$
 Pollutant Loading = $P_i P_j \times R_v \times C \times A \times 2.76 / 12$
 $= 65 \times 0.9 \times 0.02 \times 106 \times 26.6 \times 2.76 / 12$
 $= 135 \text{ lbs/yr}$

The 9 Point BMP yields an average total pollutant removal efficiency of 50%, therefore, $135 \text{ lbs/yr} \times 50\% = 67.5 \text{ lbs/yr pollutant removing}$



Anheuser-Busch, Inc.
ONE OF THE ANHEUSER-BUSCH COMPANIES

Williamsburg Brewery Operating Procedures

TITLE: INTERCEPT GATE OPERATION (Normally Closed) HAZWOPER SECTION 12.1	REVISION: 2 DATE: 9/1/98 ORIGINATORS: K. M. ASTON
DEPARTMENT: ENVIRONMENTAL, HEALTH & SAFETY	PAGE 1 OF 3

I. PURPOSE:

This procedure is to ensure consistent operation of the dry weather intercept system at the Williamsburg brewery stormwater outfall. The procedure is written to comply with Virginia Department of Water Control regulations, Hampton Roads Sanitation District pretreatment regulations and Anheuser-Busch best management practices for environmental compliance.

II. APPLICATION:

The dry weather pumpback system is designed to direct dry weather flow (non storm water), and first flush rain water to the process sewer system to ensure the quality and integrity of the storm water leaving the brewery property. The system will also detain hazardous chemical and oil spills on the plant property before these materials cause environmental damage.

It is the responsibility of the Powerhouse utility engineers to operate the dry weather intercept system at the brewery stormwater outfall. This responsibility includes verifying that the system is working and in good operating condition, and reporting and recording any interference activity.

III. DESCRIPTION:

The dry weather intercept is located at the brewery stormwater outfall located in the southwest corner of the brewery property. The stormwater from the brewery parking lots, gravel areas and roof drains are directed to a large basin capable of holding approximately 1,000,000 gallons of fluid. Stormwater from the East end of Busch Gardens is also directed to the basin.

IV. OPERATION:

At the discharge end of the basin is a 72" pipe which carries the storm water under the road and out toward the Kingsmill subdivision. A local (remote) slide gate is kept in the normally CLOSED position to prevent any liquid from leaving the facility. In front of the gate is a five foot diameter, five foot deep sump.

The sump is equipped with a level indicator. A control building is west of the basin and houses two, 100 gpm pumps. The level indicator activates the pumps when the sump fills which divert the water into the process sewer system just prior to the neutralization pit. During rain events, the gate may be raised. The raising of the gate deactivates the pumps and allows all liquid to leave the property. When the rain event is over, the gate is again closed and the pumps become operational again.

A rain gauge is mounted on the west wall of the pump house. It is tied into the PLC alarm system and signals the Powerhouse alarm panel. The rain gauge is set to acknowledge rain if more than one drop of water (1/100 inch) falls on the detector in a 90 second interval. The gate can be closed from the powerhouse panel or on the controls mounted on the gate motor control. The system is equipped with an emergency pump shut off. In the event of a spill, liquid may be contained in the basin by keeping the gate closed and shutting the pumps off.

The sump is also equipped with a pH meter. The pH level is transmitted both at the slide gate and at the powerhouse. A pH reading between 6 and 9 is indicative of neutral water. Water outside this range should be checked with an independant pH meter. Water below 5 and above 10 should be considered contaminated and not released during a storm event.

The pumps have two avenues of discharge. The valve to the process sewer is normally open, and the valve to the auxiliary loadout is normally closed. If liquid contained in the basin cannot be released or sent to the treatment plan, the valve positions may be reversed and the liquid pumped into mobile tank cars.

V. INSTRUCTIONS:

Gate will remain closed during normal operating conditions. Pumps will remain on and fluid diverted to process sewer line.

Utility operator will remain aware of weather conditions. The rain gauge will signal condensation on the gauge. Operator must acknowledge alarm to turn off sound. Operator should check the basin within 15 minutes after alarm or within 5 minutes of visible rain. When flow rate is above 200 gallons per minute (more than the pumps can keep up with) looks clear and clean, verify pH (6-9), lift the gate and allow flow to leave the property, this usually occurs after 45 minutes from when it starts raining.

While the gate is open, the operator should be in an alert status. The plant is vulnerable at this time to releases of contaminants into the stormwater system. Any spill reported at this time may leave the property and endanger the environment.

When the rain is over, the alarm panel will no longer indicate rain. The flow to the basin may continue strong for 2 to 4 hours. When the flow reduces to below 200 gallons per minute, (pumps can keep up) the gate should be closed and flow diverted to process sewer once again.

If a spill is reported while the gate is open, shut the gate from the panel and turn off the pumps. Go down to the outfall and observe the situation. If the contaminant is able to be safely disposed of through the process sewer (non oil, moderate pH, low strength (1-3%) acids and bases or organic pollutants (bcs), turn pumps back on and leave the gate in the closed position. Follow all spill procedures for that substance. If the material cannot be processed, leave the gate closed and the pumps off. Industrial Marine Services will be contacted by security to remove and dispose of the material.

VI. INSTRUCTIONS

SUMP LEVEL INCREASING:

1. One pump will turn on when the level in the sump goes above the LOLO LEVEL. The pumps will alternate in the lead position. The gate is programmed to remain shut while pumps are on.
2. Should the level in the sump rise to the LO LEVEL indication, the second pump will start. The fluid from the pit is pumped into the HRSD sewer upstream from the neutralization system.
3. Should the level in the sump reach the HI LEVEL, the computer panel in the powerhouse will indicate. This will alert the operators that there is a fluid level inside the containment area.
4. The utility operator must acknowledge the high level. If it is not raining or if there is an accompanying a pH alarm, this may indicate a spill on the plant property. The inside operator should contact plant security at 5000. The outside operator should go to the system and help trace the cause of the problem.
5. If the operator acknowledges a rain event, the slide gate should be opened after the required time has elapsed to ensure a first flush and the water looks clean.
6. The slide gate will remain open until the operator selects the close mode. The pumps will start automatically and run until the level in the sump recedes to the LOLO level. The pumps will then turn off.

7. If a spill occurs during a rain event (high or low pH indicator, or visible oil), AND the operator has already put the slide gate to open, the operator must close the gate using either the panel buttons in the powerhouse or at the outflow. If the spill is oil, keep the water level sufficiently high to contain the oil in the dry pond area while pumping out the water.

ALARMS

The computer screen in the power house will indicate the position of the gate. The indicator will show gate open if the system is not fully seated. Alarms will sound in the following events:

1. Pump malfunction
2. A PLC fault
3. A high or low pH alarm

IN THE EVENT OF A SPILL:

1. In addition to contacting security at extension 5000, the inside operator will verify that the gate is closed on the panel in the powerhouse and the pumps are OFF until the nature of the spill has been determined and proper pretreatment has been completed. (i.e. neutralization, oil skimming, etc.).
2. Utility operator will go to the pumpback system and verify the gate is seated, the pumps are off, and the nature of the contamination.
3. The outfall will be constantly monitored by 1) utility operator, or 2) hazwoper trained individual, or 3) any person given instructions and training for notification and preventive action until the spill event is over (extreme emergency until extra help arrives).

INSPECTIONS & MAINTENANCE

Monthly Inspections:

The dry weather pump system flow is permitted by HRSD. The permit conditions stipulate a monthly inspection and/or cleaning of the pit area to ensure grit and gravel are not pumped into the process sewer system. These inspections will also include a visual check of the gate seat. Visually check the slide gate position from inside the pit. This work is performed by an outside contracting company.

The pH meter will be calibrated weekly with the other pH meters at the wastewater system. This is to be completed by Anheuser-Busch maintenance instrumentation technicians.

Annual Inspections:

Annually, during the first sufficient storm event in April, the powerhouse operator will verify the gate seal by checking the pipe outlet on the Carter's Grove side of the property. Standing at the outflow of the pipe, verify no fluid is leaking using a flashlight.

The pumps, limit switches, rain gauge, slide gate actuator, pH meters, alarms signals, and PLC's shall be kept in working condition and follow manufactures procedures for maintenance and repair. Powerhouse personnel shall report all operating deficiencies to brewing maintenance immediately.

Documentation for all inspections will be forwarded to the EHS department and kept on file for 5 years.

MEMORANDUM

Date: ~~August 10, 1999~~

To: Bernard Farmer, Director of Code Compliance

From: Darryl E. Cook, Engineer

Subject: Anheuser-Busch Lauter Tub/Fermenter Buildings
SP-31-95

The proposed expansion involves an increase in the impervious area at the brewery site of 0.57 acres (143x175 foot building) and the construction of another building of 25x50 feet on an already impervious surface. To meet the Chesapeake Bay Ordinance stormwater criteria would require the construction of a small BMP(s) to control and treat a volume of 985 cubic feet which represents the runoff from the mean storm event from these impervious areas.

There is a stormwater pumpback system in place for the approximately 85 acre brewery site that captures a portion of the stormwater runoff and pumps it into the HRSD sewer system for treatment. It has been requested by the applicant in a February 21, 1995, letter from Peter Smith with Lockwood Greene that this pumpback system be used to satisfy the stormwater management requirements for the site.

Based on an analysis of the total monthly sewer loads from this system for January through March, 1995, 2900 gallons or 390 cubic feet/day are treated by this system. This represents 390/985 or 40% of the BMP water quality volume required for this expansion being treated every day. However, Virginia experiences a mean rain event on average every 77 hours or 3.2 days. Therefore, in 3.2 days, 1248 cubic feet of runoff is treated which exceeds the BMP volume requirement. It should also be noted that the BMP would only remove 50% of the pollutant loadings whereas the pumpback system removes 100% of the pollutants from the receiving system. Finally, the runoff treated by this system represents primarily the first flush of runoff events which has been shown to be most polluted portion of a storm event.

Based on this analysis, permission to use the stormwater pumpback system as a onetime credit for this expansion for purposes of meeting the Chesapeake Bay Ordinance BMP criteria would be acceptable.

Thomas W. Bonin
Resident Construction Engineer
Corporate Engineering



ANHEUSER-BUSCH COMPANIES

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