

Date Received: _____



CBPA - -

**APPLICATION FOR
CHESAPEAKE BAY ORDINANCE EXCEPTION**

By submitting this application, you provide Planning Staff the right to enter onto the subject property for the purpose of taking photos as they relate to the development request.

NOTE: The City reserves the right to postpone the hearing of this application if there are delinquent taxes and fees associated with the subject property.

APPLICANT INFORMATION:

Name of Applicant: _____
Phone Number: _____
Address of Applicant: _____
Site Address: _____

Signature of Applicant

Date

PROPERTY OWNER INFORMATION (IF DIFFERENT FROM APPLICANT):

Name of Owner: _____
Phone Number: _____
Address of Owner: _____

I authorize the above listed applicant to make application for the referenced property.

Signature of Property Owner

Date

A letter signed by the property owner granting permission may be substituted for the signature on the application. Attach such letter to the submitted application.

PROPERTY INFORMATION:

Address of Property: _____
Parcel Number: _____
Size of Property: _____

When was the lot platted/created? (Check One)

Prior to October 1, 1989 Between October 1, 1989 and March 1, 2002 After March 1, 2002

DEVELOPMENT REQUEST:

What type of development/land disturbance are you requesting? (i.e. shed) _____
What size is your development/land disturbance request? (square feet) _____

Explain why the strict application of the Chesapeake Bay Ordinance prevents the reasonable use of the property and any hardships that may be encountered. Attach additional pages, if necessary.

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ATTACHMENTS:

_____ **(5 Copies- survey/plat plan** showing the dimensions of the property to scale, location of existing and proposed development and the boundary of the Resource Protection Area (The survey/plat plan shall be no larger than 11" x 17" in size.)

_____ A **Water Quality Impact Assessment (WQIA)** that complies with the provisions of Section 9.1-11(F) of the Portsmouth City Code (Any required structural or vegetative BMPs resulting from the WQIA shall be shown on the survey/plat plan.)

_____ An application fee of \$250.00 (**Application Fee is NON-REFUNDABLE**)

OFFICE USE ONLY

Application and fee received by _____

**City of Portsmouth
BMP Calculations**

Worksheet for New Development

rev 7/31/01

Site:
Engineer:

Date:

1. Site Area SF= 0.000 Acres (A)

2. Total Impervious Area (Ia)

	<u>Post addition</u>
Structures	sf
Pavement	sf
Sidewalk	sf
Deck	sf
Other	sf
Total	<hr style="border-top: 3px double black;"/> sf, =

Ia= acres

3. I(watershed)= *

I (site)=

*- 19, 40, or 54%, see watershed map for boundaries.

C= *If I site > 20, C=1.08 mg/l*
If I site < 20, C=0.26 mg/l

If I(site) <= I(watershed), stop and submit analysis to this point. If buffer is encroached, complete buffer equivalency worksheet.

4. Pre addition pollutant loading:

$$L(pre) = 9.18 \{ 0.05 + [0.009 I(watershed)] \} CA$$

L(pre)= lbs/year

5. Post addition pollutant loading

$$L(post) = 9.18 \{ 0.05 + [0.009 I(site(post))] \} CA$$

L(post)= lbs/year

6. Net increase in NPS pollutant loading: (Removal requirement)

$$RR = L(post) - L(pre)$$

RR= lbs/year

7. Overall BMP efficiency required: (to be used as a guide in selecting approp. BMP)

%site served by BMP

$$\%RR = RR / [L(post) * (\%site\ served / 100)] * 100$$

%RR= percent

Site:
 Engineer:

Date:

1. Site Area sf= Acres (A)

2. Total Impervious Area (Ia)

	<u>Pre Addition</u>	<u>Post addition</u>
Structures	sf	sf
Pavement	sf	sf
Sidewalk	sf	sf
Deck	sf	sf
Other	sf	sf
Total	<u>sf</u>	<u>sf</u>

Ia pre=

Ia post=

3. I site (pre)=

I site (post)=

C=

If I site > 20, C = 1.08 mg/l
 If I site < 20, C = 0.26 mg/l

4. Pre addition pollutant loading:

$$L(\text{pre}) = 9.18 \{ 0.05 + [0.009(I \text{ site}(\text{pre}))] \} CA$$

L(pre) = lbs/year

5. Post addition pollutant loading

$$L(\text{post}) = 9.18 \{ 0.05 + [0.009(I \text{ site}(\text{post}))] \} CA$$

L(post) = lbs/year

6. Net increase in NPS pollutant loading: (Removal requirement)

$$RR = L(\text{post}) - 0.9[L(\text{pre})]$$

RR = lbs/year

7. Overall BMP efficiency required:

%site served by BMP:

$$\%RR = RR / [(L(\text{post}) * (\% \text{site served} / 100))] * 100$$

%RR = percent

(used as a guide to selecting BMP)

BMP Calculations

Modified CBLAD Method

Site:
Engineer:

Date:

Site Area SF= Acres (A)

I (site) pre %

I (site) pre = 19, 40, or 54%, see watershed map for boundaries.

1 Calculate actual load generated by the drainage area upland from the buffer

lot width (lw) = ft

if I(site) = 19, L=.002422*lot width L=

if I(site) = 40, L=.01866*lot width L=

if I(site) = 54, L=.02440*lot width L=

(L = pollutant load flowing into the buffer)

$L = 9.18(.05 + .009(I_{site}))C * 200 * lw / 43560$ based on 200' contributing upland distance

2 Determine the maximum load R(max) capable of being removed by the full buffer:

$R(max) =$ lbs/ yr (=0.4*L)

3 Determine actual load removed by the remaining buffer

Length (ft) Effect Removal Efficiency (Eff)

100 0.40

90 0.37

80 0.35

70 0.32

60 0.30

50 0.25

40 0.23

30 0.19

20 0.14

10 0.08

Eff= select from list at left

$R(Act) =$ lbs/ yr.

(effective load removed by existing buffer)

4 Determine the load removal requirement of an equivalent BMP

RR= lbs/ yr. $RR = R(max) - R(Act)$

5. If BMP required due to % imperviousness of site (from other worksheet)

add removal requirement here:

6. Add # 4 and # 5

= lbs/year
required to be removed

Note:

the buffer equiency method we are using (the Portsmouth modified formula) uses different values than the CBLAD method does.

The methodology is the same, however, CBLAD's calcs are based on using the regional default watershed value of 16%, and the accompanying "c" value of 0.26.

Portsmouth's calcs are based on using the actual percent of coverage of the site, and on the appropriate c value that goes along with that, either 0.26, or 1.08.

What this change accomplishes is twofold:

- a. The buffer load is based on actual conditions, rather than an artificially low (for Portsmouth) regional default value.
- b. it ensures that you are using the same c factor for both the impervious area calcs and the buffer loss calcs.

**City of Portsmouth
BMP Calculations**

Worksheet C: Compliance

rev 7/31/01

PROJECT: _____
DATE: _____ ENGINEER: _____

REMOVAL REQUIREMENT: _____ lbs/yr

Option One: CBLAD Guidance Procedure

	BMP TYPE:	Removal Efficiency (%/100)	Drain. to BMP (decimal)	Area (sq. ft)	Load post (lbs/yr)	Load Removed (lbs/yr)
1						
2						

RR Removed

Option Two: Calculate Actual Load into BMP (more precise for small sites)

BMP TYPE: _____

Impervious Area Draining to BMP (I bmp): _____ sq. feet = _____ acres

Area draining to BMP, (A bmp): _____ sq. feet = _____ acres *must be >= I(bmp)*

C bmp=(I bmp/A bmp) x 100, <= 90 % _____ % *this C should match other C in calcs.*

C post =0.26 if I site <20; 1.08 if I site > 20: _____ mg/l

L bmp=9.18 x (0.05+(0.009 x C bmp)) x (C post) _____ lbs/yr

Removal Efficiency of BMP Type: _____ fraction

Removal Efficiency x L bmp= Load Removed _____ lbs/yr

Removal Requirement: _____ lbs/yr OK? _____

SIZE BMP OPTION SELECTED:

Groundwater Elev: _____ ft

Soil Permeability: _____ in/hr

Note for very small sites: Portsmouth has selected a ratio of 1:2 for buffer replacement values. Therefore for every square foot of buffer removed, a landscaped area of 0.5 square feet must be created when using landscaping as a water quality measure.

Site:
Engineer:

Date:

1. Site Area sf= Acres (A)

2. Total Impervious Area (Ia)

	<u>Pre Addition</u>	<u>Post addition</u>
Structures	sf	sf
Pavement	sf	sf
Sidewalk	sf	sf
Deck	sf	sf
Other	sf	sf
Total	<u> </u> - sf	<u> </u> - sf

Ia pre= Ia post= acres

3. I site (pre)= I site (post #DIV/0! percent

C= If I site > 20, C = 1.08 mg/l
 If I site < 20, C = 0.26 mg/l

4. Pre addition pollutant loading:

$$L(pre) = 9.18 \{ 0.05 + [0.009(I \text{ site}(pre))] \} CA$$

L(pre)= lbs/year

5. Post addition pollutant loading

$$L(post) = 9.18 \{ 0.05 + [0.009(I \text{ site}(post))] \} CA$$

L(post)= - lbs/year

6. Net increase in NPS pollutant loading: (Removal requirement)

RR= lbs/year

$$RR = L(post) - L(pre)$$

7. Overall BMP efficiency required:

%site served by BMP:

$$\%RR = RR / [(L(post) * (\%site \text{ served} / 100))] * 100$$

%RR= percent

8. Buffer replacement requirement: (Use for additions of 1000 sf or less only)

= sf

$$BRR = [Ia(post) - Ia(pre)] / 2$$