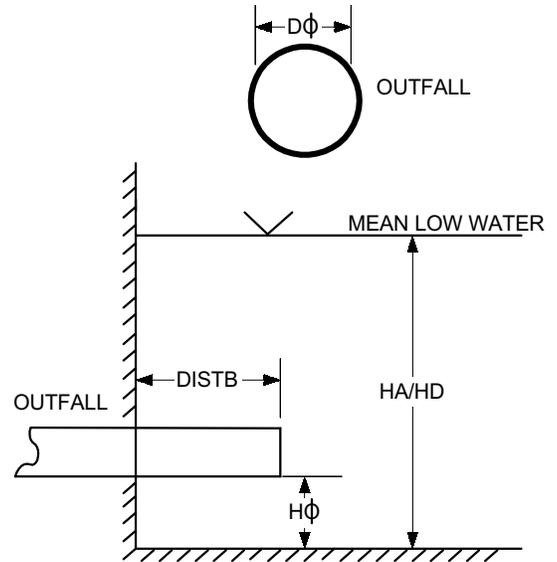
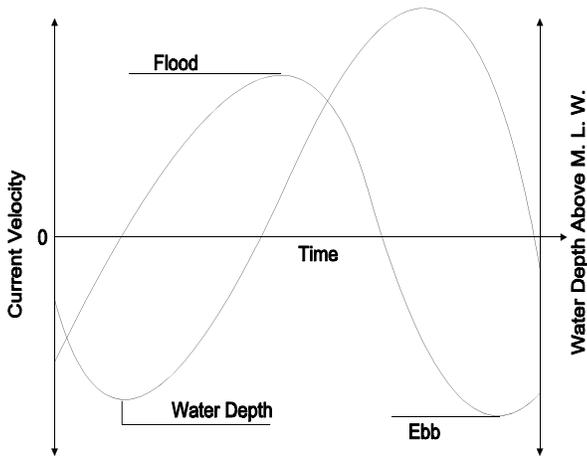


State Pollutant Discharge Elimination System (SPDES)  
**INDUSTRIAL APPLICATION FORM NY-2C & MUNICIPAL APPLICATION FORM NY-2A**  
 Supplement A  
**MIXING ZONE REQUIREMENTS FOR DISCHARGES TO ESTUARIES**

Facility Name:	SPDES Number:
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**Mixing Zone Analysis For Estuarine Marine Waters  
 Data Requirements - Pipe Discharge**



- Discharge outfall height =  $H\phi$
- Average Depth =  $HA/HD$
- Distance to the Bank =  $DISTB$
- Outfall/Port Diameter =  $D\phi$
- Discharge Velocity =  $U\phi$
- Design Discharge Flow =  $Q\phi_0$
- Actual Average Flow<sup>1</sup> =  $Q\phi_1$
- Average Peak Flow<sup>1,2</sup> =  $Q\phi_2$
- Discharge Density =  $RHO\phi$
- Surface Density<sup>3</sup>- Tidal Waters =  $RHOAS$
- Bottom Density<sup>3</sup>- Tidal Waters =  $RHOAD$

Ft: \_\_\_\_\_  
 Ft: \_\_\_\_\_  
 Ft: \_\_\_\_\_  
 Ft: \_\_\_\_\_  
 FPS: \_\_\_\_\_  
 CFS: \_\_\_\_\_  
 CFS: \_\_\_\_\_  
 CFS: \_\_\_\_\_  
 Kg/m<sup>3</sup> \_\_\_\_\_  
 Kg/m<sup>3</sup> \_\_\_\_\_  
 Kg/m<sup>3</sup> \_\_\_\_\_

Provide Stage VS. Time data over a tidal cycle  
 Provide Tidal Velocity VS. Time data over a tidal cycle

--See above diagram  
 --See above diagram

Note: <sup>1</sup>Two year period shall be used.  
<sup>2</sup>Yearly average of monthly hourly maximum effluent flow.  
<sup>3</sup>Upstream of the discharge site