Clear Form

SPDES DISCHARGE PERMIT
Detailed Mixing Zone Form

Purpose & Instructions

The following information will inform the Department's review of your SPDES permit and the resulting effect on the receiving waterbody. Complete the information (one form for each outfall) based on either field observations or schematics/design drawings to the best of your ability. Please see the Mixing Zone Guidance for additional instructions. If an item is unavailable or non-applicable, please describe. Submit with the NY-2A or NY-2C Application Form to SPDESapp@dec.ny.gov.

Facility Name: _____ SPDES No.: _____ Outfall #: _____

NYSDEC Permit Writer: _____ Receiving Waterbody Class: _____

Email: Phone No.:

Observation Information

Name & Title of Observer: _____ Date of Observation: _____

Phone Number: _____ Email: _____

Name of Receiving Waterbody: _____

Weather conditions at time of observation (describe any recent rain/melt events):

Avg. Width (ft): _____ Avg. Depth (ft): _____ Local Depth at Outfall (ft): _____ Source: _____

Has the receiving waterbody run dry in the last 5 years? ☐Yes ☐No

Are tidal conditions present? ☐Yes ☐No

Measured Velocity (fps): _____ Source or Method: _____

Receiving Water Information

All Receiving Waters	Surface Temperature (ºF): _____ Bottom Temperature (if depth >10 ft) (ºF): _____ **Lakes**: If receiving waterbody is a lake, attach any available summer and/or winter temperature data.
	Describe seasonal variability of receiving waterbody (low-flow conditions, nearby dams, canal operations, stratification):
Saline Waterbody	If receiving waterbody is saline (Class SA, SB, SC, SD, I) density information is required. Surface Density (kg/m^3): _____ Bottom Density (kg/m^3): _____ Source of Density Information:

☐Additional information regarding the receiving waterbody is attached (i.e. temperature/ tidal/ density studies).

Effluent Discharge Information

Temperature (ºF): _____ AND / OR Density (kg/m^3): _____ Source: _____

Outfall Location & Configuration

Outfall #: _____ Location at end of pipe: Latitude: _____ Longitude: _____

Describe the outfall (location, size, configuration, condition of the structure):

_____

Please select the option below (1 – 3) that best describes your facility's outfall configuration.

☐ I have attached supporting as-built drawings, sketches, or engineering plans to help describe the outfall.

☐ **Option #1: Bank Discharge** (outfall pipe/channel does not extend into waterbody).

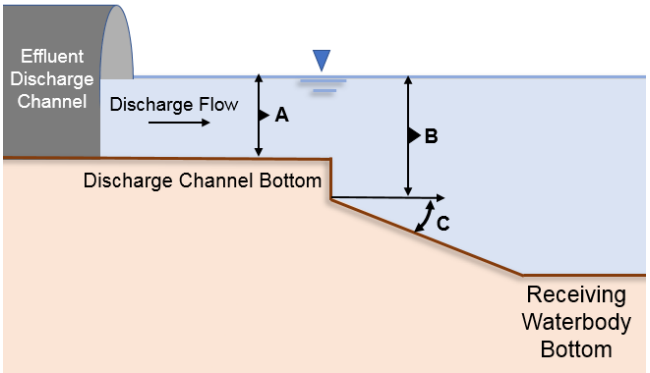
☐ Outfall pipe (____inch diameter) discharges to waterbody at ____ feet from bank

☐ Outfall pipe is above (or partially above) water surface OR

☐ Outfall pipe is submerged and located ____ feet above channel bottom

OR

☐ Channel/ditch (____ft wide x ____ft deep x ____ft long) discharges to waterbody at bank



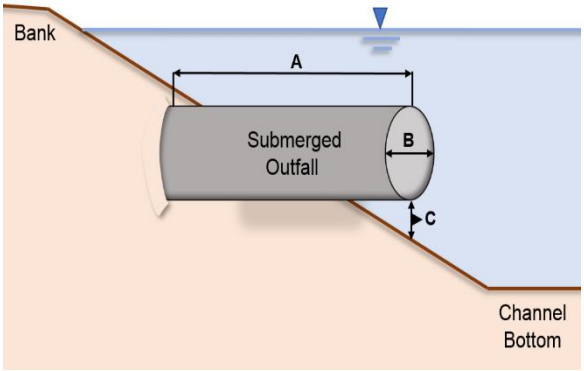
A. Average depth of water in channel (ft): _____

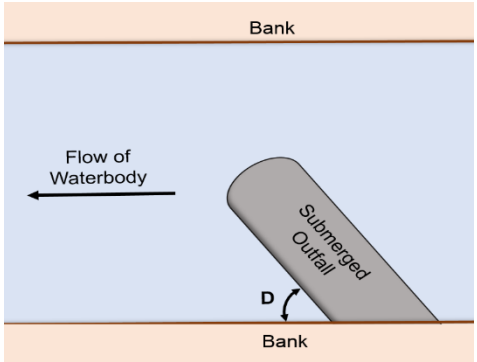
B. Local depth at outfall (ft): _____

C. Bottom slope (degrees): _____

Source: _____

☐ **Option #2: Extended Pipe Discharge** (outfall pipe extends into waterbody) with **no** multiport diffuser.

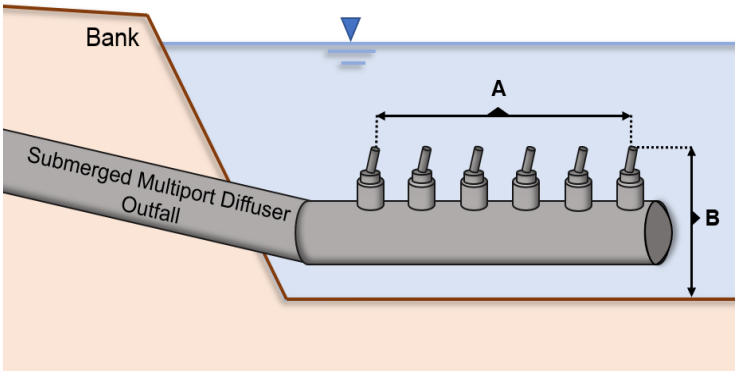


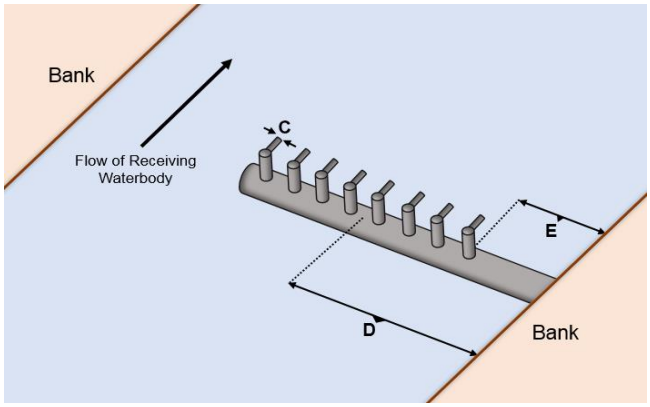


		Source
A. Distance from bank to end of pipe (ft):	_____	_____
B. Outfall pipe diameter (in):	_____	_____
C. Distance from bottom of outfall pipe to immediate bottom of channel (ft):	_____	_____
D. Angle between bank and outfall:	_____	_____

☐ **Option #3: Extended Pipe Discharge** (outfall pipe extends into waterbody) **with** multiport diffuser.

☐ Attach a detailed drawing of the diffuser (required). If not available, please contact the DEC permit writer.





No. of openings: _____ Orientation: ☐ Unidirectional ☐ Alternating Direction: ☐ Line ☐ Fanned out

		Source
A. Length of diffuser line (ft):	_____	_____
B. Height of discharge (top of diffuser nozzle to channel bottom) (ft):	_____	_____
C. Diameter of nozzles (in):	_____	_____
D. Distance from bank to middle of diffuser line (ft):	_____	_____
E. Distance from bank to first diffuser nozzle (ft):	_____	_____

Outfall Photos & Schematics

Upload or attach photos/schematics that depict the outfall (i.e. satellite images, hand sketches, design drawings, view upstream/downstream). **You will be prompted twice to select your photo / schematic.** You may upload more than two photos by repeating this process. They will be included as attachments.

Click to Upload Photos	**Click to Upload Photos**
Description:	Description: