

St. Clair River Dye Release Questions

Note: An Addendum to the RFP is released in conjunction with these questions and posted at: <http://glos.us/stclair/dye/>

In general, wherever the RFP refers to the 'channel', we intended 'river' not 'navigation channel.'

About the Release

Q. *Are the two dye releases planned for same day or two separate days?*

A. Separate days, with 24 hours between them to ensure clarity in attributing samples to one release or the other.

Q. *The Scope of Work discusses the details of the two dye releases upstream of the SUNCOR dock. The attached figure also mentions up to four dye releases to simulate ballast water discharge. I am assuming that these ballast water simulations are part of another project, is this correct? If so, is there a ballast simulation work plan available for reference?*

A. It is not available.

Q. *Is weather (wind, rain, river level) going factor for when we can do a dye release?*

Q. *Are the specific flow conditions that the sampling needs to be conducted at?*

A. No, you are free to choose the timing of the releases.

Q. *Do you have an estimate of St. Clair River flow rate we can use to estimate the quantity of dye required?*

A. St. Clair river flow rate is expected to be between 4500 and 5500 cubic meters per second during this period. Real-time model simulations of current velocities in the river can be obtained at the GLOS HECWFS Viewer web site: <http://www.glos.us/hecwfs/>

Q. *Clarification about what dye releases means: Are these surface releases only, or distributed through the water column? Are the releases to be slug releases, or constant rate injections? If the latter, over what time period?*

A. A surface slug release is desired.

Q. *The anticipated location of "west bank" release point is unclear. The terminology implies a release in the shallows west of the navigational channel, but the attached figure (p8) identifies a location **in** the navigational channel adjacent to the west edge of the channel. Given the established flow characteristics of the St. Clair River, the choice of location will have a profound effect on downstream results. Which is the intended release point?*

A. The west bank release should be between 50 and 100 m offshore of the west bank of the river. The center channel release should occur midway between the east and west bank of the river.

Q. Will GLOS ensure that all regulatory agencies and communities, including First Nations, are in agreement with the study, prior to entering a contract with the successful bidder?

A. All required permits are already in hand. Industry, First Nations and US/Canadian regulatory agencies and first responders have been briefed on the project.

Q. Given the dye travel times involved, releases are likely to be very early morning, implying a notification at between 3:00 and 5:00 am. Notifications to be handled by the contractor include a requirement for a two hour advance notice on the day of the operation. Will all agencies on the notification list be equipped for receiving notification 24 hours per day?

A. Two hour notice is to a very small number of individuals, some of whom are available 24 hours a day. We are checking on the others.

About Transects

Q. Is it our understanding that 3 transects be conducted per release?

A. Yes, as a minimum.

Q. Do the same transects need to be repeated?

A. Yes.

Q. The RFP states the number of transects per release, but the locations given are confusing. Can you clarify the desired transect locations for each release?

A. Only generally, the exact location does not matter as long as: 1) They are in the general vicinity outlined in the RFP; 2) The bidder can provide latitude and longitude for each transect; and 3) The bidder can assure us that the transects can be replicated for each release.

Q. We will propose using a flow-through fluorometer with continuous data collection. Are transects to be taken only when the dye concentration is at its peak or at regular intervals?

A. The transects should be taken when the dye is at its peak concentration.

Q. What about the freighter traffic? I expect the freighters to mix things up in the river including sediments. Will we sample around the freighter traffic?

A. The contractor will be expected to monitor freighter traffic and arrange the release and transect samples to minimize interference from freighters.

Q. Does "across the channel" refer to the navigational channel, or the full width of the St. Clair River (ie bank to bank)?

A. Full width

Q. If transect point include the shallows east and west of the navigational channel, are vertical profiles in the shallows anticipated?

A. Ideally, vertical profiles will be taken at $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ the distance across the river, except for the first transect for the west bank release where additional distances of $\frac{1}{6}$, $\frac{1}{3}$, and $\frac{1}{2}$ the river width away from the western bank would be preferred.

Q. *For the vertical profiles, how many vertical locations are expected – surface / mid-column / bottom, or more frequent?*

A. Ideally, 5-7 vertical locations spaced equally from surface to bottom are desired.

About Time Series

Q. *At what depth do the time series need to be sampled at?*

A. Time series should be sampled between 0 and 0.5 m below the surface.

Q. *Will the drinking water plant intakes be monitoring for dye during the study?*

A. Possibly, those details have not yet been finalized.

Q. *Can we have the coordinates for the intake locations in the river?*

A. No, however as long as you have accurate latitude and longitude for the location of sample sites for time series samples, the data will be good for GLOS' purposes.

Q. *Where are the Canadian intakes?*

A. We are not necessarily proposing to sample near the Canadian intakes, see answer above re. the time series samples sites.

Q. *In the attached time series figure (p8), what were the geographical co-ordinates of the modeled release?*

A. 42.9340N 82.4508W

Q. *Are all time series sample points to be surface samples?*

A. Time series should be sampled between 0 and 0.5 m below the surface.