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Senate Bill 168 – SUPPORT

Senate Bill 168 – Environment
Senate Committee on Education, Energy, and the Environment
"Environmental Justice in Confined Aquatic Disposal Act"

My name is Daniel Peter Sheer; I live in Howard County Maryland. I am the current Commodore of the Rock Creek Racing Association, whose members primarily live in Northern Anne Arundel County, many in overburdened communities. We are recreational users of the area that would be impacted by the development of CAD sites in the Patapsco River.

I am also the founder, and former owner, and President of HydroLogics Inc., a small Maryland firm that helped manage water resources used, in total, by about 20% of the U.S. population. Analyzing complex water resources problems is my stock and trade. I have received several national awards for my work. I am a citizen and taxpayer of the State of Maryland, concerned with avoiding non-productive State expenditures, particularly those that are likely to do substantial environmental and social damage while providing little or no benefit to the State and its citizens.

I support Senate Bill 168 because it will help ensure that communities already overburdened with environmental impacts will not suffer additional hardship (environmental justice). I also support SB 168 because it will make it less likely that the State will waste taxpayer money on CAD projects that will pose significant environmental risks while failing to achieve their intended objectives. The link between these two reasons is simple. Water courses near overburdened communities are highly likely to have very contaminated sediments. Places with substantial, existing sediment contamination are terrible locations for CAD projects.

Case in point, the area being proposed for a CAD "Pilot Project" in the Patapsco River is very near the underwater Superfund site. Sampling of the sediments at the proposed CAD site shows high levels of toxicity. Dredging those toxic sediments is required to create a CAD cell. Dredging toxic sediment is highly problematic. It will:

1) Spread contamination throughout the water column
2) Spread contamination along adjacent shorelines
3) Increase the risks associated with water based recreational activities
4) Pose a risk of contaminating fish and shellfish
5) Incur significant cost

To be viable, a publicly funded CAD project must provide public benefits. CAD is touted as a potential solution to the disposal of material dredged to maintain the Port of Baltimore (Maintenance Dredged Material – MDM). Currently MDM must be placed in a Dredged Material Containment Facility (DMCF) such as Masonville or Cox Creek. Locations for new DMCF facilities are becoming hard to find; that is the crux of the problem. It is, in my opinion, highly unlikely that using CAD will significantly reduce that problem; it may well make the problem worse. CAD will also be very expensive, and as discussed above, fraught with environmental and social risks.

Utilizing CAD will require at least twice and likely three or four times as much dredging as would placing MDM directly in a DMCF; likely much more. If MDM is placed in a DMCF (no CAD), the MDM is the only material to be dredged. In the case of using CAD, first, material much be dredged to create a hole in the river bottom (CAD dredged material – CDM), and then the MDM must be dredged and placed in the hole. In a best case, twice as much material must be dredged, and the

CDM still has to go somewhere. Worse, at least part of the CDM will be even more contaminated than the MDM from the harbor. This increases the difficulty of disposal, creating a worse problem.

Additional dredging is costly. Current USACE contracts for harbor dredging cost of about $17/cubic yard (cy). Corrected to current dollars, the Masonville DMCF cost about $12/cy. That alone makes CAD significantly more expensive than DMCF, ignoring the cost of disposal of the CDM. If the CDM cannot be sold or repurposed, it will need to remain in a DMCF. That would add another $12/cy to the cost of CAD disposal, making it more than 2.5 times more expensive than simply placing the MDM directly into a DMCF. Worse, the amount of DMCF capacity required would be the same in both cases. That's a lot of money and a lot of environmental and social risk for no gain whatsoever.

To the extent that the CDM can be repurposed, the amount of DMCF capacity required can be reduced. Much of the CDM is similar to but likely more contaminated than the MDM. There is no established market for such material. If, and it's a big if, a use can be found for this part of the CDM, it is likely that the MDM can be used in the same way. In a best case scenario all the MDM would be used directly, eliminating the need for both CAD and any additional DMCF capacity. In my opinion any reuse of either MDM or the similar part of the CDM is unlikely, but well worth investigating. Direct use of MDM would solve the problem at hand, be less costly, and avoid other impacts.

Some of the CDM will be sand, a commodity with a value of about $5/cy according to the USGS. That is assuming that the sand is not contaminated, and that it can be sold for the same price as sand from conventional sources. Both of these are likely poor assumptions. If the CDM is 50% sand, and both assumptions hold, it will still cost $17 to dredge $5 worth of sand and save .5cy ($6 worth) of DMCF capacity. This is not a good deal, in my opinion.

Relatively simple calculations show that, given the assumptions in the previous paragraph, new DMCF capacity would need to cost nearly 3x the inflation corrected cost of Masonville to make CAD attractive economically. That calculation completely ignores the environmental and social risks and other costs associated with CAD, and that the CDM material that would be placed in the DMCF would likely be significantly more toxic than MDM material. It is extremely likely that implementing CAD would be a terrible idea.

As stated earlier, CAD sites near overburdened communities are likely to be similar to those in the Patapsco. Removing such sites from consideration would likely benefit the State by avoiding costly evaluations of sites unlikely to be desirable.

I urge you to support Senate Bill 168. It will help:

1) avoid significant State expenditures on feasibility and pilot studies on CAD sites that are unlikely to be good candidates for implementation,
2) prevent CAD implementations that provides little benefit at great economic environmental and social costs, and
3) provide environmental justice.

Thank you for your kind attention.

Sincerely,

Daniel P. Sheer, Commodore, Rock Creek Racing Association, Citizen of the great State of Maryland.