

From: (b) (6)
To: [DC-Metro-CSR-Study](#)
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Subject: [Non-DoD Source] Metropolitan Washington, District of Columbia, Coastal Storm Risk Management Feasibility Study Draft Integrated Feasibility Report and EA
Date: Monday, August 1, 2022 9:54:52 AM

The U.S. Environmental Protection Agency (EPA) reviewed the Draft Integrated Feasibility Report and Environmental Assessment (IFR/EA or EA) for the Metropolitan Washington District of Columbia Coastal Storm Risk Management Feasibility Study (Study) (which also has been referred to as the Northern Virginia Study.) Alternative 4c-Arlington Water Pollution Control Plant (WPCP) Floodwall and 5c-Belle Haven Levee and Floodwall were combined into Alternative 8. Alternative 8 was identified as the National Economic Development (NED) Plan and was chosen as the Tentatively Selected Plan (TSP).

EPA has several recommendations for your consideration in the development of the Final IFR/EA and FONSI in compliance with the National Environmental Policy Act (NEPA) of 1969, the CEQ regulations implementing NEPA (40 CFR 1500-1508), and Section 309 of the Clean Air Act. We note that although EPA accepted the invitation to be a cooperating agency in September 2019, EPA has had limited involvement in development of the study. Therefore, our comments reflect the information provided in the publicly available IFR/EA materials. Please also note that as July 31st is a Sunday, we are providing our comments on August 1st.

Alternatives

Nature-based infrastructure not only helps slow floodwaters but can have co-benefits for water quality, habitat, and aesthetic enhancement, and may benefit long term climate resilience. Section 1.7 acknowledges the benefits of natural and nature-based features (NNBF) and indicates that opportunities exist in the study area to incorporate it.

- EPA recommends clarifying the evaluation and assessment of nonstructural and NNBF measures. It is unclear how the models used for evaluating the alternatives have considered the benefits provided by nature-based infrastructure. Table 3-2. indicates that nonstructural measures such wetland restoration, reefs, and beach restoration did not meet the planning objectives for the Study, but it is not evident how this was determined.
- EPA recommends the addition of NNBF to the TSP in the Final IFR/EA. As stated in Section 3.0, NNBF will be added as a design consideration to enhance the performance and effectiveness of the final array of alternatives. However, specific opportunities for adding NNBF were not identified in the Draft IFR/EA.

Air Quality

Section 4.2.3 indicates that the actions associated with Alternatives 4b, 4c, 5a, and 5c are exempt from General Conformity as the ozone precursors, volatile organic compounds (VOCs) and nitrogen oxides (NO_x) are below the USEPA threshold of 100 tons per year (tpy) for all maintenance areas.

- As indicated in Section 2.4.4.1, the Washington, DC-MD-VA region is designated as a nonattainment area for 8-hour ozone 2015 standard as well as maintenance for the 2008 standard. The project area also appears to be in an Ozone Transport Region (OTR). Specifically, the Consolidated Metropolitan Statistical Area that includes the District of Columbia is in the OTR. For the OTR, the applicable de minimis emission threshold for maintenance and nonattainment (as listed in Table 2-1 in Appendix A4) is 50 tpy for VOCs and 100 tpy of NO_x. We recommend that Section 4.2.3 be updated and clarified.
- In addition to meeting requirements of General Conformity, we recommend that localized air quality impacts from construction on local communities be addressed. The EA indicates high ozone; other EJScreen indicators such as Diesel Particulate Matter and Air Toxics Respiratory Hazard Index show existing high air pollution relative to the nation. We recommend consideration of BMPs and how they will be implemented. (For example, anti-idling restrictions may be helpful, but how will they be enforced?)

Environmental Justice

EPA appreciates the intent to identify underserved communities. However, it is unclear from the information provided whether the assessment is sufficient to fully identify potential communities with EJ concerns.

- By using the 80th percentile or greater nationally, people of color populations may not be sufficiently evaluated. For an initial screening, EPA recommends following the guidance provided regarding EO 12898 in Environmental Justice under the National Policy Act and identifying all census block groups where the minority populations either exceed 50 percent or determining what minority population percentage lower than 50% would be meaningfully greater. Comparing to state and regional percentiles may be more informative than using the national percentiles.
- We recommend that the selection of the screening criteria to identify low-income populations be clarified. The IFR/EA uses the 80th percentile or greater nationally for percent of the population that is at or below 200% of the federal poverty line. While 200% of the federal poverty line may be appropriate given the cost of living in the metropolitan Washington D.C. area, it is unclear whether the 80th percentile should be used in this analysis.

- As the very large study area makes it difficult to conduct a full analysis of potential EJ concerns, we recommend that the communities impacted by the final array of alternatives be evaluated in greater detail. We recommend using this information to tailor outreach to underserved communities or potential communities with EJ concerns, if appropriate.

Vegetation

Section 2.3 did not include a discussion of terrestrial vegetation in the study area, although 4.2.1 does describe some riparian vegetation in the area of the proposed structural measures.

The EA indicates that removal of live and dead trees and saplings and shrubs would be avoided to the greatest extent practicable to minimize impacts on migratory birds. We concur that this is an important minimization measure but note that conversion of vegetation may have additional impacts which should be evaluated, including stormwater and water quality, aesthetics, shade/temperature, and habitat for a range of fauna.

Aquatic Resources

A potential change in inundation depth in the wetlands following construction of the floodwall/levee is currently not expected to affect the wetlands. However, providing the modeling results that confirm this assumption in the Final IFR/EA would be helpful.

Construction of the proposed culvert crossings in two streams in Belle Haven would result in roughly 2,250 sqft of new permanent fill impacts and 2,000 sqft of temporary impacts. Section 6.8.1 indicates that the amount of fill material placed into the channels was minimized to the greatest extent practicable. In addition, the culvert design should be considered to minimize potential impacts, including prevention of barriers to passage of aquatic and semi-aquatic species during low-flow conditions.

Water Quality

Section 2.4.1.2 indicates that Arlington County, Fairfax County, and the City of Alexandria have identified opportunities for both structural and non-structural improvement projects to address accelerated stream erosion and sedimentation from stormwater runoff. We recommend evaluating opportunities to incorporate green infrastructure in conjunction with the TSP to enhance the plan. Likewise, we recommend consideration of additional activities that may enhance floodplains or wetlands such as Dyke Marsh to increase resilience from storms and flooding.

Cultural Resources

The potential impacts to resources under Section 106 of the National Historic Preservation Act are currently unclear. The Belle Haven neighborhood may need to be formally evaluated for listing on the National Register of Historic Places, archaeological

surveys may be needed in the footprint of the proposed levee and floodwall, and the proposed floodwall may have viewshed impacts from historic resources such as the George Washington Memorial Parkway (GWMP) and the Mount Vernon Trail. Based on Sections 6.9 and 6.10, a Programmatic Agreement is currently being developed or will be developed with the Section 106 consulting parties for impacts. We recommend that the Final IFR/EA be updated with the status of consultation, the draft or final PA, resource impacts, and other relevant information.

Noise

As described in the EA/IFR, it is estimated that the construction duration for the Arlington WPCP would be 18 months and construction duration for Belle Haven is 4 years. Expected equipment such as bulldozers, flatbed trucks, trailers, dump trucks, and asphalt and concrete trucks typically generate noise levels ranging from 70 to >80 dB, well above the typical background noise levels in urban residential neighborhoods. The assumption of 12-hour construction days could mean that noise could have substantial impacts in early morning or evening hours as well as all day. Noise pollution has been linked to health effects such as stress-related illnesses, high blood pressure, speech interference, and sleep disruption, as well as adverse impacts to children's learning.

- Due to the close proximity of the proposed floodwall and levee to several of the condominium buildings in Belle Haven, construction would adversely affect the residents of Belle Haven during the daytime. The IFR/EA states that this adverse effect would not be significant because noise is not expected to exceed 80 dB (although it was stated the crane would “average 81 dB”) and would be temporary. We recommend additional evaluation of noise on nearby residences and other sensitive receptors, including metrics that factor in noise perception and impacts based on equipment, distance, and shielding and consideration of noise mitigation measures, particularly at Belle Haven given the lengthy construction time frame.
- Section 4.2.9 indicates that noise in the location of the Arlington WPCP may be higher than other urban residential areas due to the amount of surrounding commercial activity on Mount Vernon Avenue and Route 1 and aircraft noise from the nearby Reagan National Airport. As noise is an additive stressor, we recommend further analysis to support the conclusion that construction noise would not be significant.
- We recommend consideration of noise BMPs and mitigation, including screening, mufflers, time-of-day restrictions, etc.
- We also recommend addressing operational and maintenance noise from the

pump stations.

Aesthetics and Recreation

The proposed levee/floodwall at Belle Haven may permanently obstruct the view of the natural areas located south of Belle Haven and the GWMP. The IFR/EA indicates that the view from the lower floors of the River Towers Condominiums and from the community grounds and recreational areas would be obstructed. It appears that there may be both temporary and permanent impacts to aesthetics, but the severity of the impacts is currently unclear.

Recreational impacts associated with the TSP should be fully evaluated, including impacts from temporary closures. For example, Section 4.2.8 indicates that the portion of the existing asphalt pedestrian path between the Arlington WPCP and Four Mile Run may need to be removed or temporarily closed in order to construct the floodwall. Would closure of the path have impacts beyond recreation, such as commuting by foot or bike? For the Belle Haven Levee and Floodwall, 4 years is a substantial amount of time to disrupt access to recreational facilities and outdoor enjoyment for community residents. Further, it is unclear if there is an area to replace the tennis courts that will be removed.

Outreach

As the TSP will impact communities, quality of life issues such as noise, aesthetics, and recreation are important and should be fully considered. We thank the USACE for providing additional time for public comment, and we recommend additional and continued outreach to work with impacted communities to refine the plan and reduce potential impacts to residents and businesses.

Section 3.3 notes that USACE recommended a combination levee/floodwall as the most cost-effective solution for the Belle Haven planning unit in 2008 and 2014, but a project was not implemented due to community opposition. It is currently unclear if the community is supportive of the proposed Belle Haven floodwall and levee; we recommend additional meetings and stakeholder communication.

Environmental Consequences

EPA recommends that the determination of duration and significance of environmental consequences summarized in Section 6.7 be supported with further detail, particularly for the alternatives carried forward as the TSP.

To support the findings of impacts to water quality, habitat, and other resources, we recommend estimating potential temporary and permanent impacts earth disturbance, vegetation clearing, conversion, and increases in impervious area from the construction of the levee and floodwalls, pump stations, and parking areas.

Mitigation

Construction of the proposed culvert crossings is expected to result in roughly 2,250 sqft of new permanent fill impacts to two streams. The draft plan for compensatory mitigation is to purchase credits from an approved mitigation bank or an approved in-lieu fee program in the Middle Potomac River Watershed. Appendix G indicates that the USACE is in the process of identifying the appropriate mitigation bank to meet the need for this mitigation plan. We recommend that available banks with appropriate credits be listed in the Final EA/IFR. As the Middle Potomac watershed is quite large and the urban watersheds have suffered degradation, mitigation that offsets impacts at a local level should be assessed.

Cumulative Impacts

As the proposal is refined, cumulative effects should be more fully explored. We support including the modeling results of evaluating potential cumulative effects of induced flooding from the proposed flood protection measures and existing flood protection in the Final IFR/EA and evaluating impacts to environmental and cultural resources from the TSP in more detail.

We understand that many details are still preliminary. Therefore, additional NEPA studies may be necessary to fully evaluate impacts. We recommend clarifying whether additional studies are planned in the Final IFR/EA. Commitment to continued outreach and specific mitigation measures may also be helpful in reducing potential adverse impacts.

Thank you for providing us with notice to provide comments for your consideration in the development of this Study. If you would like to discuss any of these recommendations, please don't hesitate to contact me.

Thank you,

Carrie

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