	A	B	C
1	**Comment No.**	**Reference**	**SC Maglev Technical Comments**
2	**Chapter 0 - Table of Contents**		
3	1	pg. 3 last paragraph	The stated purpose of "revenue-producing" transportation is euphemistic and realistically does not give an indication of stand-alone solvency. AMTRAK is revenue-producing but has also received significant government funding every year since inception. Total annual taxpayer funded grants/subsidies to Amtrak have been in excess of 1 billion dollars every year since 2003. Discussion should be provided with respect to expected operational funding requirements for the SC Maglev. Taxpayers deserve to understand. Further, if the SC Maglev can function without such grants/subsidies, can AMTRAK grants/subsidies be expected to continually increase in the face of reduced ridership when the SC Maglev operation begins?
4	**Chapter 0 - Executive Summary**		
5	2	Sec ES.1, pg. ES-1, 3rd paragraph	It is stated that FRA has jurisdiction over all railroads, except urban rapid transit operations that are not connected to the general railroad system. This is confusing and discussion needs to be provided to clarify whether they have jurisdiction, etc. for SC Maglev.
6	3	Sec ES.1, pg. ES-2, 1st paragraph	If current FRA regulations do not comprehensively address SC Maglev train operations, regulations need to be in place prior to design, construction, and start of operations. This calls into question whether the SC Maglev can be confidently and reliably constructed as proposed within current cost estimates.
7	4	Sec ES.1., pg. ES-2- ES-3, 2nd paragraph	The distinction between cooperating and participating agencies need to be further clarified, and a definition of a concurring agency should be provided. Roles and responsibilities are unclear as currently stated.
8	5	Sec ES.2, pg. ES-6, objectives	The primary project objective seems to be a SC Maglev test case for a larger Washington, DC to New York or Boston SC Maglev system. However this is explicitly not stated. Ultimate goals should be discussed along with acknowledgment the anticipated general approach to approvals, timing and coordination.
9	6	Sec ES.2, pg. ES-6, last paragraph	The COVID-19 pandemic has altered transportation needs. Rapid developments in remote meeting applications and telework abilities will undoubtedly continue to relieve some transportation/commuting pressure in the wake of the pandemic. Utilization projections should incorporate these considerations.
10	7	Sec ES.3.2, pg. ES-9, 5th paragraph	It is stated that refinements were made to the J and J1 alternatives based on input from Federal, state, and local agencies. Were there responses to these comments?

	A	B	C
11	8	Sec ES.4.3.1, pg. ES-16, 2nd bullet	Disposal of 23+ million yards of spoils is a large endeavor. Assuming 15 cubic yards per truck, that equates to over 1.5 million truck loads. As such, this will have impacts on traffic, road surfaces, and disposal locations, as well as environmental resources including air and water quality. In the October 11, 2018 M-NCPPC letter (page 3, 8th bullet) a recommendation was made to use rail as much as possible to transport the excavated or spoil material. In Appendix G-5, Proposed Truck Routes from Landover Mall, Konterra, and the Suburban Airport staging areas are provided. These maps do not indicate use of any rail lines. Please address whether rail utilization was considered, as well as, details concerning how the multiple resource impacts will be mitigated.
12	9	Sec ES.5, pg. ES-24-25, general	The DEIS states that the SC Maglev will be privately owned and operated and therefore there is a need to clarify what entity/entities have jurisdiction. For example, will the TMF at BARC-west be deeded over to SC Maglev or leased from USDA. The determination of jurisdiction is important when enforcing environmental, stormwater, building codes, grading plans, and other County regulations and functions such as Emergency Response, Fire, and Police. Please clarify whether the facilities will be privately owned and whether they will be subject to federal, state or local jurisdiction.
13	10	Sec ES.5, pg. ES-24, 2nd paragraph	The Chesapeake Bay Critical Area (CBCA) Consistency approval process for the SC Maglev project is highly unlikely. With the anticipated Critical Area impacts and large multi-jurisdictional nature of the project, it is more likely than not going to be subject to full Critical Area Commission review.
14	11	Sec ES.7, pg. ES-25, ES-26, general	Although the document states that the FRA is not specifying a preferred alternative in the DEIS, the BWRR has indicated that their preferred alternative is Build Alternative J-03. Will the FEIS state FRA's preferred alternative, or will that be in the ROD?
15	**Chapter 2 - Purpose and Need**		
16	12	Sec 2.2, Page 2-1 Project Need	The text indicates that a system that complies with Federal Safety Standards will be developed. SCMagLev is a new technology in this country. Do these standards exist? Where can they be reviewed? Can you also cite where the SCMagLev Technology exists in an underground system?
17	13	Sec 2.2.1, pg. 2-4, Figures 2.1-2	The employment graph is the same as the population graph. This is an error and needs to be corrected.
18	14	Sec 2.2.1, pg. 2-4, Figures 2.1-2	Figure 2.1.1 shows population projections for Baltimore and Washington "Regions" for year 2015 and projection for 2045. The DEIS should specify what geographical areas (i.e., cities, towns, and Counties) are used to make up the "regions" to allow independent confirmation of the numbers. The 2015 numbers should also be updated with new census figures in April.

	A	B	C
19	15	Sec 2.2, pg. 2-5 Project Need	Major Development project assumptions may need to be revised and reconsidered as a result of COVID-19. The project should revise and realign relevant portions of the text to reflect current and existing conditions.
20	16	Sec 2.2, pg. 2-5 Project Need	Section 2.2.2.1 does not make the argument that congestion will lessen as a result of SCMagLev. It is true that the area experiences high traffic volumes. This DEIS goes on to suggest that areas around the stations will experience high growth rates of commercial uses. These growth areas have the potential to increase traffic and put increased development pressure on the suburbs. What % of workers are projected to live in the cities and use SCMagLev as their commute of choice? It would seem the trends favor living in the suburbs and commuting to these newly proposed office spaces via the road network.
21	17	Sec 2.2, pg. 2-8 Project Need	The text states that weekday Amtrak Service is reduced due to COVID –19. How does the global pandemic factor into this study? Surely ridership of all transit will be down as a result of the pandemic. How long will this last? How will ridership and Amtrak service permanently change due to the pandemic? How is the SCMagLev project adjusting for these new conditions?
22	18	Sec 2.2, pg. 2-9 Project Need	The text cites problems with the existing railroad infrastructure and suggests that it is costly to repair and replace this aging system. The SCMagLev is also costly. How do you know the SCMagLev is less costly (or more cost effective) than upgrading existing rail? How does the SCMagLev propose to keep its aerial and underground infrastructure from falling into the same disrepair? The taxpayers need to know these details.
23	19	Sec 2.2, pg. 2-9 Project Need	The SCMagLev project construction threatens to redirect funds away from important rail infrastructure improvements. Where is the cost-benefit analysis that would justify diverting these funds?
24	20	Sec 2.2, pg. 2-9 Project Need	The Section on MARC Services indicates that the MARC trains will operate at 70% capacity by 2025. The text also cites the number of trips made each day in the am and pm. Why is the same type of data not provided for the SCMagLev project? This should be provided.
25	21	Sec 2.2, pg. 2-11 Project Need	The statement that ridership will transfer from MARC Trains to the SCMagLev is not based on any trends or factual information. It is only an assumption. What is the assumption based on? The suggestion that people will travel from their homes in Prince George's County, to a metro station at New Carrolton or Greenbelt, travel to DC to catch the SCMagLev to BWI or Baltimore is difficult to believe in the absence of evidence.

	A	B	C
26	22	Sec 2.2, pg. 2-11 Project Need	The argument about WMATAs bus service between BWI and Greenbelt is lacking factual information and is based on poor assumptions. The argument states that riders abandoned buses due to heavy traffic and delays on the Baltimore-Washington Parkway (BWP) and 295 corridors. Why then conclude that adding cars to the Parkway by abandoning a bus service would help traffic? There needs to be more study into why this ridership has decreased. It is equally plausible that poor service, scheduling, and cost would factor into the analysis.
27	23	Sec 2.2, pg. 2-14 Project Need	The text states there are no dedicated busways along major corridors in Baltimore. (Page 2-14 first full paragraph, first sentence.) Previously in the text on Page 2-13 in Section 2.2.4.2 It states that it takes 83.2 minutes for MARC train riders to commute between Baltimore and Washington. For the same ride is takes 71.5 minutes by bus. It seems the money spent on developing Busways would be much more cost effective and could shave considerable time off this commute at a lower cost. The cost benefit analysis needs to explain this discrepancy.
28	24	Sec 2.2, pg. 2-14 Project Need	The project appears to be a specialty service to be used for occasionally riding on the segment between DC and Baltimore. The potential cost makes it unlikely that it would be used for daily or regular commuting purposes. How would the project sponsors respond to that issue?
29	**Chapter 3 - Alternatives Considered**		
30	25	Sec 3.1, pg. 3-2, 3rd paragraph	Continued project viability and operational success is dependent on the alignment of the SC Maglev technology and yet to be determined FRA regulatory requirements. This is a project risk that needs to be acknowledged and addressed.
31	26	Sec 3.1.2, pg. 3-4 & 3-5, Ancillary Facilities	Both temporary and permanent access roads will be constructed for the SC Maglev facilities. It is assumed the permanent access roads will be privately owned and not County roads, but this should be clarified for each of the proposed facilities as follows: Station 108+150 - FA/EE - it's assumed that access to this will be from Kenilworth Avenue and through the existing parking lot; Station 112+ 900 - shows access road being constructed off of Riverdale Road; Station 118+150 - J1 Alignment shows a facility on the west side of BWP and J Alignment (Station 118+850 shows it on the east side, but for both alignments the maps do not show how they will be accessed); Station 120+000 - means of access is not shown; Station 120-650/800 - means of access is not shown. This information should be clearly stated.

	A	B	C
32	27 (cont.)	Sec 3.1.2, pg. 3-4 & 3-5, Ancillary Facilities	BARC West - Maintenance of Way (MOW), Substation and TMF- access from Powder Mill Road and Odell Road (note: portion of Odell Road relocated); Station 122+250 (J1 BARC TMF option) - means of access is not shown; Station 121+400 (J alignment) - no means of access shown; Station 122+100 - access from Powder Mill Road; Station 123+000 (J1) - no means of access shown; Station 122+900 (J) no means of access shown; Station 123+700 (J1) - this shows 4 "systems" areas - it is assumed that access will be from Hermosa Drive since they are in or just adjacent to the residential properties off of Hermosa Drive; Station 123+600 (J) - no means of access shown; Station 124+200 (J) - this is location for substation, a SC Maglev system building, and construction laydown which as shown requires displacement of 2 existing commercial buildings so it assumed access will be same as the existing buildings via Stephen F. Gaughan Drive; Station 125+300 (J1) - assumed access is from MD Route 197; Station 125+250, 125+500 (J) - no means of access shown. The temporary and permanent means for gaining access to all proposed facilities needs to be described and shown on maps. This is needed to determine the associated impacts from the proposed driveways/roadways. The proposed ownership should also be specified, along with the need for property acquisition..
33	27	Sec 3.3, pg. 3-25 Description of Alternatives (3.3.2.3 MOW Facilities)	The MOW Facility is proposed to be located less than 100 feet from existing residential properties. The proposal essentially places an industrial use in the backyard of existing homes. This is not appropriate and will require strategies to avoid or lessen impacts. Can the MOW facility be placed elsewhere? Why is this particular spot so critical? The MNCPPC requests to see detailed sections and cross sections of these facilities to better understand visual and noise related impacts.
34	28	Sec 3.3.2.6, pg. 3-33-34, Power Facilities	This section describes power facilities and states that additional substations will be needed. Their size varies and would be located as follows: two at BARC West TMF (5 acres each) and five located along the mainline as follows: adjacent to PEPCO substation along Harry Thomas Way NE in DC (2 acres), New York Avenue at Adams Place NE in DC (14 acres), Annapolis Road at Hoffman Avenue in Halethorpe (20 acres), Annapolis Road at Clare Street in Westport (7 acres), BWP/MD 197 interchange in Laurel (12 acres) (Alternatives J), Airfield, Brock Bridge Road in Laurel (20 acres (Alternatives J1). The other possible TMF locations would also have 2 substations each. Why are these substations mentioned in this section but not in Chapter 4.19? The size and number of substations is significant and will result in loss of forested land and increased visual impairment. Were other, less impactful, locations considered? Why were these locations chosen in spite of the impacts to existing forest and viewshed.

	A	B	C
35	29	Sec 3.3.2.11, pg. 3-38 Stormwater Management	This section discusses how stormwater management will be achieved at the various locations and refers to alignment drawings in Appendix B.1. The drawings show highlighted areas where SWM facilities will be located or needed. A variety of SWM types are listed, along with a statement that they will be designed as per regulatory design criteria. This section should mention that the TMF(s) and MOW(s) will need to apply for a NOI to be covered under Maryland's General SW Permit for Industrial Facilities, or apply for their own permit. This will require that they have Stormwater Pollution Prevention Plans and regular maintenance and monitoring of SW discharges. The addition of these facilities may require amending the Prince George's County's Watershed Implementation Plan, adjustment of TMDL load allocations, and amendments to the County's MS4 permit. Have these impacts been coordinated with the County? The DEIS should state that if the SCMAGLEV properties become privately owned, Prince George's County will have the responsibility for reviewing and approving all Erosion and Sediment Control Plans for construction, and review and approval of all SWM systems.
36	30	Sec 3.3.2.12, pg. 3-39 Construction Phase Facilities	This section describes construction staging and laydown areas and indicates that in addition to the smaller construction sites along the respective alignments which range in size from two to ten acres, there are three potential staging areas identified: (former) Suburban Airport (50 acres), undeveloped land near I-95 and MD 200 (ICC) interchange (160 acres), and (former) Landover Mall (40 acres). A more detailed evaluation of the impacts to these areas (including nearby residential neighborhoods), the adjacent properties, and the access and associated haul routes is needed.
37	**Chapter 4.1 - Introduction**		
38	31	Sec 4.1, pg. 4.1-1, 3rd paragraph	Project consideration must include long-term impacts as well. Why is it stated that only short-term impacts were evaluated? This is inconsistent with Section 4.1.2 on page 4.1-2.
39	32	Sec 4.1.2.2, pg. 4.1-4, last paragraph	In addition to viaduct piers, maintenance/access drives under the viaduct should also avoid floodplains, stream crossings, wetlands, and other sensitive resources to the maximum extent practicable. This will necessitate exiting the right-of-way onto and off public roads to divert around these areas. The DEIS analysis does not include this information, yet it is critical to develop a full picture of the impacts.
40	33	Sec 4.1.2.2, pg. 4.1-5, 1st paragraph	The environmental impact associated with disposal of the anticipated volume of excavated soils warrants serious consideration at this stage of planning. More detail is necessary.
41	34	Sec 4.1.2.2, pg. 4.1-5, 3rd paragraph	The statement: "Where reasonably-feasible identified construction sites are within the limits of disturbance (LOD)." Is confusing and should be clarified.

	A	B	C
42	35	Sec 4.1.2.2, pg. 4.1-6, 1st paragraph	Repair and maintenance responsibilities of roads associated with haul routes should be provided. Road repairs and repaving required due to hauling should be the responsibility of the project sponsor and not the road right-of-way owner.
43	36	Sec 4.1.2.2, pg. 4.1-6 Material Haul Routes	This section describes possible haul routes and states that where possible, haul routes will use public roads in non-residential areas and that no commercial or construction vehicles are allowed on BWP south of MD 175. Appendix G.7 includes maps showing the proposed haul routes as associated with the three staging areas. There is another map showing five "Potential Spoil Disposal Sites": 1. Baltimore City Dump, 2. BWI Airport, 3. Millersville LF in Anne Arundel County, 4. Prince George's County Waste Management facility, and 5. Sparrow's Point in Baltimore. Have the owners of these sites been approached by the project sponsor and did they give their tentative approval? Are they aware that certain chemicals will be mixed with the spoil and are they prepared to accept this material? Is there a contingency plan if one or more of the proposed disposal sites declines to accept spoil?
44	37	Sec 4.1.2.2, pg. 4.1-9, 3rd paragraph	In addition to relocating a segment of the Little Patuxent River, the MD 198 TMF would also have significant other resource impacts that are not stated here. This area has extensive palustrine forested wetlands as mapped by the Maryland Department of Natural Resources (DNR) and National Wetlands Inventory. The TMF also overlaps with data shown on the DNR Sensitive Species Project Review Area GIS layer which identifies a state-listed rare, threatened or endangered species and a species or natural community of state concern. This area is also mapped by DNR as Forest Interior Dwelling Species (FIDS) habitat. Forested riparian buffer impacts will also contribute to water quality degradation in the Little Patuxent watershed. The 100-year floodplain in this area is over 1,500 feet wide and has a FEMA mapped floodway that will be impacted. Channel relocation and placing significant fill to construct the TMF will have implications for the stability of the Little Patuxent and its associated floodplain and will require significant engineering analysis to ensure that adjacent properties will not be impacted. This analysis appears to be particularly incomplete and should be supplemented.
45	38	Sec 4.1.2.2, pg. 4.1-9, 3rd paragraph	Given the height of the proposed retaining walls and buildings, will the MD 198 TMF impact the Tipton Airport?
46	39	Sec 4.1.3, pg. 4.1-10, resource topics, 2nd bullet	The SC Maglev Project Affected Environment is partially based on GIS data and other mapping sources. Resource limits, and therefore impacts, will differ when the necessary full field delineations are completed. As such, resource impacts are not fully known at this time and that should be acknowledged.
47	**Chapter 4.2 - Transportation**		

	A	B	C
48	40	Sec 4.2.2.2, pg. 4.2-1-5 Methodology	This section evaluated the effects of all modes of transportation with the SC Maglev project and how the various modes are impacted with no SC Maglev (the No Build alternative) under the time frame from 2030 to 2045. The DEIS evaluated all modes of transportation to include Commuter rail (MARC), Amtrak, Light Rail, buses, and roads. The document states that approximately 32% of annual MARC ridership would divert to the SC Maglev, resulting in a decline in fare revenues. The projected diversions from Amtrak is 94%. For both MARC and Amtrak, the document states that no mitigation plans have been developed or made available. The decrease in fare revenues would seem to have a major impact to MARC and Amtrak financial viability and possibly impact the level of service they currently provide to residents and businesses in Prince George's County. This needs further evaluation with input from MDOT (MARC) and Amtrak.
49	41	Sec 4.2.3.4, pg. 4.2-6-7 2nd paragraph and Table 4.2-2 and Table 4.2-3	There are annual ridership and date discrepancies between the text, Table 4.2-2, and Table 4.2-3. These numbers should to be corrected/clarified to give the reader an accurate estimate of utilization.
50	42	Sec 4.2.3.4, pg. 4.2-7 Table 4.2-3	Annually diverting 2.1 million to 2.8 million rail riders to the SC Maglev will have a large impact on Amtrak. Decreased rail utilization may directly impact local Amtrak employees and businesses near Amtrak stations. Additionally, Amtrak is heavily subsidized to maintain solvency which makes decreased rail utilization a financial concern for the taxpaying public. Discussion on the negative consequences of rail rider diversion should be included.
51	**Chapter 4.3 - Land Use and Zoning**		
52	43	Sec 4.3.3.1, pg. 4.3-4 2nd paragraph	The proposed impacts to various federal properties is in conflict with each facility's mission. Discussion of the justification for this approach should be included.
53	44	Sec 4.3.4.2, pg. 4.3-8 2nd paragraph	With various significant proposed impacts to Prince George's County, it is important that the SC Maglev Project also consider mechanisms to support Prince George's County's planning goals and impact offsets. Discussion should be included to address and mitigate.
54	45	Sec 4.3.4.2, pg. 4.3-12 4th paragraph	It is stated that viaduct and ancillary facilities could fragment and limit management and use of federal properties. This expands the impact beyond that of the directly impacted land. However, no mitigation strategies have been included to address this. Details and discussion should be included to address these potential impacts..
55	46	Sec 4.3.4.2, pg. 4.3-14, 2nd paragraph	It is specifically stated the **BARC Airstrip TMF** is not consistent with Prince George's County Master Plan. Since this will have a negative impact on long-term growth and planning goals in the County, discussion should be included to address how this could be rectified if this TMF remains a viable option.

	A	B	C
56	47	Sec 4.3.4.2, pg. 4.3-14, 2nd paragraph	BARC and NASA have expressed concerns that construction of the BARC Airstrip TMF will have irreplaceable impacts that would have long-lasting implications and even permanent loss of research. This is a significant drawback to this TMF option which should be clearly acknowledged and/or accompanied by a robust effort to mitigate these impacts, if possible.
57	48	Sec 4.3.4.2, pg. 4.3-15, 1st paragraph	It is specifically stated the **BARC West TMF** is not consistent with Prince George's County Master Plan. Since this will have a negative impact on long-term growth and planning goals in the County, discussion should be included to address how this could be rectified if this TMF remains a viable option.
58	49	Sec 4.3.4.2, pg. 4.3-15, 1st paragraph	BARC has expressed concerns that construction of the BARC West TMF will have significant negative impacts on research and would cause permanent losses. This is a strong drawback to this TMF option which should be acknowledged and/or accompanied with a robust effort to mitigate adverse impacts.
59	**Chapter 4.4 - Neighborhoods and Community Facilities**		
60	50	Sec 4.4.4.2, pg. 4.4-10, Washington DC 1st bullet	Discussion of replacement, relocation, or other offsets for displacement of key community facilities such as emergency shelters and addiction treatment facilities needs to be included. Stating the nearest alternate location is not an acceptable mitigation strategy.
61	51	Sec 4.4.4.2, pg. 4.4-10, Prince George's County 2nd bullet	It is stated that minimal tunnel separation will occur at the Greenbelt Condominium complex. Separation of 14 feet from tunnel to foundation would seem to raise significant safety and structural concerns. This would also have important noise and vibration effects for residents. Minimally these condominiums will be devalued. Discussion should be included to address reasonable alternatives, potential property acquisition, safety procedures, etc.
62	52	Sec 4.4.4.2, pg. 4.4-12, 1st bullet	Residential properties above the tunnel portions of the J1 alignment would experience vibration impacts within and near the Bladensburg, Woodlawn, New Carrolton, Greenbelt, and South Laurel neighborhoods. How does the project sponsor propose to minimize, mitigate and/reduce these impacts?

	A	B	C
63	53	Sec 4.4.4, pg. 4.4-4-19 Environmental Consequences	Alternate comment text (Bayland): Although numerous neighborhoods, communities, and community facilities will be impacted, there will be some significantly impacted areas including Riverdale Road area in Woodlawn; the Greenbriar Condominiums in Greenbelt; the Villages at Montpelier Apartments, Evergreens at Laurel Apartments, Applewalk Condominiums, and Laurelwood Condominiums in Laurel. Direct communication with these communities should be completed so residents, owners, and community representatives are fully aware of the implications. Coordination discussion and results should be included in the report.
64	53 (cont.)	Sec 4.4.4, pg. 4.4-4-19 Environmental Consequences	(J1-01 to J1-06 Alternatives) Woodlawn - a FA/EE requires permanent acquisition from two properties and removal of trees in a forested area; residences near the BWP on Elmshorn Way, Hermosa Drive, and Frensham Court in the Montpelier Hills community and those on Ivory Fashion Court, Blue Moon Court, Sea Pearl Court and Sumner Grove Drive will have views impacted from the viaduct which is as close as 65 feet, LOD encroachment, altered access, and loss of open space; (J1-01 to J1-04 Alternatives) residences south of Sumner Grove Drive - a MOW facility will be constructed within 100 feet and require full property acquisition and loss of forested areas in the Springfield Road Park; Hermosa Drive, Frensham, Dortmund, and Vanfleet Courts - would be within 500 feet of three new system buildings, relocation of high tension power lines, loss of trees, and visual impacts at Montpelier Elementary School; Crystal Plaza Shopping Center - the viaduct and a system building will be constructed between the BWP and the Center and would be as close as 100 feet to a hotel and the Center stores; BARC West TMF - this will require property partial acquisition from one parcel and will be in close proximity to residents along Gross Lane and Odell Road in South Laurel. The impacted residents, communities, and businesses should be made aware of these potential impacts from the SC Maglev. A better discussion of efforts to avoid then mitigate these impacts is needed.
65	54	Sec 4.4.5.1, pg. 4.4-20, 4th paragraph	If location and positioning of the build alternatives may change, how can environmental impacts quantities be known with confidence?
66	**Chapter 4.5 - Environmental Justice**		

	A	B	C
67	55	Sec 4.5.2.2 & Sec 4.5.3, pg. 4.5-3-7 Methodology & Affected Environment	The Project Affected Environment for EJ assessment includes those block groups that are fully or partially within the 500 feet buffer of the proposed alignments and the 1/4 mile buffer from stations and TMF locations. Even though it could be argued that the "affected" area is potentially larger than that, the EJ analysis results from the DEIS are still profound. Of the 124 block groups within the Project Affected Environment, 102 block groups exceed one or more of the EJ thresholds, and of the 102 block groups with EJ populations, 59 contain minority groups, 10 have low-income residents, and 33 include both minority and low-income. Figure 4.5.1 shows the EJ areas along the merged alignment paths. This figure shows that the majority of the EJ groups are located in Prince George's County. The SC Maglev project disproportionately impacts EJ groups in the County and these groups and other parts of the County realize no benefit from the project, due to the lack of access. USDOT Order 5601.2 requires that any activities that have a disproportionately high and adverse effect of EJ populations will only be carried out if: 1) a substantial need for the activity exists, based on the overall public interest, and 2) build alternatives that would have less impacts would either have other adverse impacts or are more expensive. Therefore, the question (applying #1 criteria) that needs to be answered is whether there is substantial need for the project based on public interest? Additionally, because all of the alternatives in the DEIS follow a parallel alignment, it is not clear whether other less impactful alternatives have been considered and even less clear why those other alternatives were eliminated. Please clarify.
68	56	Sec 4.5.3, pg. 4.5-6, 1st paragraph	If 102 of 124 block groups exceed at least one EJ threshold, EJ block groups would account for 82% of affected block groups not the stated 85%. The numbers should be corrected or clarified.
69	57	Sec 4.5.4.2, pg. 4.5-11, Comm. Facility mitigation	No efforts to offset impact to, and loss of, community facilities have been made. Potential displacement of 3 key community facilities in EJ areas without discussion or justification for the impact or replacement, relocation, or the mitigation options raises concerns that EJ populations are not being fairly treated.
70	58	Sec 4.5.4.2, pg. 4.5-11, 3rd paragraph	By technical calculations, 86% of parkland impacts are within EJ population areas. However, the two federal parks comprising the remaining 14% of parkland impacts that are not technically within EJ population areas, do provide nearby EJ populations with a sense of green space, environmental benefits, and aesthetic value. As such, 100% percent of parkland impacted is realistically valued by EJ populations. Adequate justification has not been provided to justify this disproportionate impact on EJ populations.

	A	B	C
71	59	Sec 4.5.4.2, pg. 4.5-12, Parkland mitigation	Significant parkland impacts in EJ population areas will result from the SC Maglev construction and operation. The Greenbelt Forest Preserve and the astronomical observatory are important assets/resources for EJ communities. The Astronomical Society of Greenbelt has worked very hard to build membership and the observatory. No discussion is provided on community investment or mechanisms to replace or offset the loss of these valuable recreational assets. Consideration and discussion needs to be included to address why these impacts can't be avoided and how these unique assets can be replaced or offset.
72	60	Sec 4.5.4.2 , pg. 4.5-13, Aesthetics & Visual Quality	Section 4.5.2.1 reviews Title VI of the Civil Rights Act and lists a statement from the Act that says, "no person in the US shall on the ground of race, color, or national origin be excluded from participation in, denied benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance." The SC Maglev is impacting many minority and low income areas. Page 4.5-13 summarizes the impacts to Aesthetics and Visual Quality and states that 47 of the 56 locations identified as moderate to high sensitivity are in EJ population areas. Many of them are along the proposed viaduct alignment areas. A specific impact in Prince George's County (under the J and J1 alternatives) is from the New Carrollton FA/EE facility located near Martins Woods Historic District, Patterson Park, and the Wildercroft-Riverdale Road residential communities. The 50 feet high FA/EE facility will be constructed in a forested area and will have profound aesthetic and visual impacts (see Figure 4.9-2). Appendix B.2 - Sheet 3 shows these areas to have minority and low income populations. Since a majority of the impacted residents will receive no benefit from the SC Maglev, if the project does receive any Federal funding then this could be a violation of Title VI of the Civil Rights Act.
73	61	Sec 4.5.2.2, pg. 4.5-15-16, Noise & vibration sections	Significant noise and vibration impacts will result from the SC Maglev project. It is stated that mitigation measures will reduce noise effects but will not eliminate them. With over 99% of noise impacts effecting EJ populations, discussion needs to be provided to justify how this will not disproportionately effect EJ groups.
74	62	Sec 4.5.4.2, pg. 4.5-16, last paragraph	With approximately 80% percent of parcel impacts in EJ population areas, justification for the proposed impacts needs to be provided. Impacts to residential land, commercial properties, and institutional and recreational land uses will adversely effect EJ populations, while benefitting mainly riders located outside of the County who can afford costly ticket pricing. How is this justified?
75	63	Sec 4.5.5, pg. 4.5-21-25, general	Have the range of possible project affects been discussed as part of the EJ outreach efforts? It is important for community members to understand the potential project implications such as reduced property values.
76	**Chapter 4.6 - Economics**		

	A	B	C
77	64	Sec 4.6, pg. 4.6-1, Economic Resources	The cost estimates suggest that there will be a net change in parking fee costs. However, there will be parking fees associated with taking the MagLev. The text in this section needs to be clarified to better understand how costs were factored into the estimates.
78	65	Sec 4.6, pg. 4.6-1, Economic Resources	The text indicates that the first full year of operations will be in 2030. Given the complex permitting and mitigation requirements, plus property acquisitions, is this still a reasonable timeline?
79	66	Sec 4.6, pg. 4.6-1, Economic Resources	The text presents economic operations and market response outcomes focused on full-build out conditions in the horizon year 2045. Does this include numbers for ridership? If so, how does the Project intend to make up the financial differences between the first year of operations (2030) and 2045?
80	67	Sec 4.6, pg. 4.6-1, Economic Resources	The impacts of COVID will be determined. What "rainy day" or long term plans do the project sponsors have to make up revenue shortfalls during construction and/or revenue (operational) service?
81	68	Sec 4.6, pg. 4.6-1, Economic Resources	In planning for operations to begin in 2030, the prices of metal, lumber, gas and other needed commodities are rapidly increasing. How will the DEIS chapter account for all these types of escalations in the construction cost estimate, final pricing of tickets etc...? Staff doesn't recall reading about it but these costs should be analyzed. If they were included, please clarify where staff can read about these costs. if they are not included, please include.
82	69	Sec 4.6, pg. 4.6-1, Economic Resources	Given that this project will have negative impacts around the TMFs, FA/EEs, required infrastructure and the portals, the same amount of study and analysis should be offered regarding many of the negative consequences to the area and not just the positive economic impacts. This version of the DEIS lacks detailed description and study of the negative economic consequences associated with adverse impacts detailed elsewhere in the document.
83	70	Sec 4.6, pg. 4.6-2, Economic Resources	Will the job earnings and earnings impacts be revised using the most recent data? This report utilizes 2018 multipliers. How will the pandemic impact these forecasts?
84	71	Sec 4.6, pg. 4.6-2, Economic Resources	In 4.6.1.2 Methodology Section, the discussion suggests that construction activities will generate negative impacts known as social costs. Please provide a detailed description of these expected social costs of the project. Staff is particularly interested in the impacts to Prince George's County.
85	72	Sec 4.6, pg. 4.6-3, Economic Resources	The text indicates that there will be "minor negative impacts around the selected trainset maintenance facility." While the use of the word "minor" is subjective, please define "minor" and expand this discussion to provide specific details of these "minor" impacts?

	A	B	C
86	73	Sec 4.6, pg. 4.6-3, Economic Resources	The text mentions the property premium (discount) for parcels around selective TMF's and the Build Alternative stations. Will this property premium (discount) also occur around the Fresh Air Vents? If yes, please expand your discussion in the text to include these considerations. If no, please indicate the basis for this conclusion. Staff is particularly interested in impacts in Prince George's County.
87	74	Sec 4.6, pg. 4.6-3, Economic Resources	The text alludes to properties being acquired. What properties will be acquired within Prince George's County? Please include a full list of properties to be acquired or encumbered for this project. Would they be acquired through eminent domain?
88	75	Sec 4.6, pg. 4.6-3, Economic Resources	Please provide more details regarding the net changes in revenues that are projected to occur in Prince George's County as a result of this project?
89	76	Sec 4.6, pg. 4.6-5, Economic Resources	If the Median household income in the Baltimore and Washington area ranges between $80,470 and $102,180, how are riders going to afford the $60 one-way fare that is cited in the text? ($120 per day; $600 per week etc...) The assumptions presume that a sizeable portion of household income will be utilized for transportation costs. Explain the basis of this assumption.
90	77	Sec 4.6, pg. 4.6-4, Economic Resources	How will the SCMagLev project impact the cost of AMTRAK and MARC in the Baltimore Washington Corridor? Please elaborate in the text.
91	78	Sec 4.6, pg. 4.6-6, Economic Resources	The text suggests that 192,000 (or 7%) commuters start in Baltimore and travel to DC. Likewise, 160,000 workers or 13% commute from Washington DC. What percent of these riders are projected to shift to SCMagLev?
92	79	Sec 4.6, pg. 4.6-6, Economic Resources	If there are going to be more jobs and more buildings around the stations, this would suggest more people commuting to work at these buildings, causing more congestion from the suburbs. These new jobs put pressure for more land development in the suburbs closest to the project area. Typically, the trends suggest that Americans will drive from the suburbs to the office. A smaller percentage will trade life in the suburbs for life in the city. Please elaborate how data indicates changes in historic travel patterns. Please provide data to support your ridership assumptions.
93	80	Sec 4.6, pg. 4.6-6, Economic Resources	What happens to the earnings? What percentage of earnings get reinvested in the project? The impacted communities?
94	81	Sec 4.6, pg. 4.6-7, Economic Resources	Most Federal agencies stopped reporting to LEHD in 2017. The federal employee/contractors commuting numbers are probably under reported. The DEIS should take this into account.
95	82	Sec 4.6, pg. 4.6-7, Economic Resources	The DEIS needs a better or clearer explanation why property value impact varies significantly when the negative tax impact does not.

	A	B	C
96	83	Sec 4.6, pg. 4.6-7, Economic Resources	What percentage of the riders that live in Columbia will switch to SCMagLev? Does the project allow for a larger percentage of people from Columbia that will not commute using the Maglev? Might commuters from this area feel that it is more reasonable to take their own cars as they must account for time to park and load?
97	84	Sec 4.6, pg. 4.6-7, Economic Resources	Please provide a list by county of negative impacts. The DEIS makes sweeping remarks like "impacts MAY be significant," and in other sections it is suggested that impacts around the TMF's will be "minor." These conclusory statements are not helpful without details containing location specific data. Please provide more detail and specific information to each location.
98	85	Sec 4.6, pg. 4.6-7, Economic Resources	The DEIS should not suggest that other transportation projects are going to be successfully implemented along the alignments.
99	86	Sec 4.6.3, pg. 4.6-8, 1st paragraph	The DEIS states that: "FRA additionally estimates the profitability ratio associated with the SCMAGLEV Project," but the ratio is not stated anywhere for the reader. This ratio should be provided or the statement should be clarified.
100	87	Sec 4.6.3, pg. 4.6-8 Environmental Consequences	This section summarizes the key findings and shows mixed results: gains of $8.8 to $10.6 billion from construction wage earnings; construction negative impacts from $18.5 to $311 million to businesses from decreased revenues resulting from lane closures, traffic delays, limited accessibility; increase in jobs (390-440 annually) and associated earnings from $24.3 to $27.4 million for operation and maintenance of the SC Maglev. This section also estimates increased tax revenue due to increased property values near the SC Maglev stations which is not applicable to Prince George's County. Another economic impact is the loss of tax revenues due to property acquisitions for the SC Maglev, which for Prince George's County ranges from $41,000 to $129,000 for the various alignment alternatives. Since Prince George's County will have no stations and therefore would not realize the property tax gains associated with stations, like DC and Baltimore, a more specific economic analysis is needed to better quantify Prince George's net gain or loss from the SC Maglev. Also, loss of property value due to the various adverse impacts detailed in the DEIS (noise, vibration, viewshed) especially for properties in close proximity to the elevated guideway and ancillary facilities, has not been analyzed. This would seem to be a major oversight.
101	88	Sec 4.6.3.2, pg. 4.6-10, general	Starting after page 4.6.9, pagination is incorrect. Subsequent comments for this chapter cite listed page number*.
102	89	Sec 4.6.3.2, pg. 4.6-3*, 1st paragraph	Discussion should be included as to whether additional Fire, EMS and other emergency services, facilities, and/or specialized training and equipment is included in the safety savings numbers.

	A	B	C
103	90	Sec 4.6.3.2, pg. 4.6-7-9*, Table 4.6-4 and Table 4.5-5	Several total impact values are incorrect in the Property Value column and the Negative Tax Impact column. While inconsistencies may be due to rounding, values should be corrected.
104	91	Sec 4.6.3.2, pg. 4.6-14*, 2nd paragraph	If the expected average fare is cost prohibitive to many community members affected by the project, the numerous negative impacts seem to be even more onerous. Some justification for this needs to be outlined.
105	92	Sec 4.6.3.2, pg. 4.6-14*, 2nd paragraph	Should the statement: "However, with the greater prevalence of people working from home, many travelers will select going into the office fewer times per day, reducing the amount of household budget absorbed by commuting." be revised to state "fewer times per week?"
106	93	Sec 4.6.4.1, pg. 4.6-21-22*, bulleted list	At the very least, the businesses should be offered the opportunity to place banner signs on construction fencing so customers know the business is open or alternate access is provided.
107	94	Sec 4.6, pg. 4.6-22, Economic Resources	The SCMagLev project and the Managed Lanes project are competing for the same land for staging areas. Further coordination is needed. The text suggests (first full paragraph after bulleted paragraph) that the SCMagLev will wait for other regional projects to take place before SCMagLev proceeds. How does this impact your date of 2030 to be the first full year of operations as the timeline for the Managed Lanes project is unknown in Prince George's County?
108	95	Sec 4.6, pg. 4.6-22, Economic Resources	What happens to residential and business relocations if this project uses private funding?
109	96	Sec 4.6, pg. 4.6-23, Economic Resources	How did you arrive at the reduction in tax base value (0.2 percent) for the project?
110	97	Sec 4.6.4.1, pg. 4.6-24*, last paragraph	The proposed alignment in Prince George's County is in conflict with the County's Master Plan as well as many localized master plans. This will have economic ramifications and needs to be addressed.
111	98	Sec 4.6, pg. 4.6-24, Economic Resources	Prince George's County and Anne Arundel County should not have to implement any mitigation measures to lessen the negative property premium impacts. Mitigation is the project's responsibility. Please provide a detailed list of all proposed mitigation actions before moving onto the next level of the project.
112	**Chapter 4.7 - Recreational Facilities and Parklands**		

	A	B	C
113	99	Sec 4.7.2.1, pg. 4.7-3, 1st bullet Recreation Facilities and Parkland	The project appears to be in conflict with Section 4(f) of the USDOT Act of 1966. What is the justification for the impact to numerous public parklands?
114	100	Sec 4.7, pg. 4.7-4, Recreation Facilities and Parkland	The SCMaglev aerial viaduct will be visible and audible from the Historic Montpelier Mansion. The text does not address these points. The Patuxent River Park I was once part of the historic estate of Montpelier. Please address these impacts.
115	101	Sec 4.7, pg. 4.7-4, Recreation Facilities and Parkland	The text seems to contain a conflict about the potential buffer that trees will provide with regards to screening. The information presented suggests the viaduct will be at least 144-feet higher than the elevation of the travel lanes and that a 50- to 250- foot strip of trees will provide a visual buffer to the existing travel lanes. The Department of Parks and Recreation is more concerned about visual impacts on the opposite side – or the neighborhood side of this alignment. Trees in general are 100-feet in height and this viaduct would tower almost 45 additional feet above this tree line. Please explain how the trees could possibly buffer the viaduct under these circumstances.
116	102	Sec 4.7, pg. 4.7-4, Recreation Facilities and Parkland	The text suggests that the parkland and trails located at the Patuxent River Refuge would be impacted by the SCMagLev project and that these much-loved amenities would be hard to replicate elsewhere. The Department of Parks and Recreation concurs with this statement. The current Level of Service needs for trails and parkland in this area of the County is below recommended industry standards. The MagLev project proposal will drive the level of service of trails and parkland even lower. The DEIS fails to acknowledge this issue and as a result, there is no sense of urgency or importance expressed in the document. How does the project sponsor propose to avoid and/or mitigate these significant impacts?
117	103	Sec 4.7, pg. 4.7-4, Recreation Facilities and Parkland	Impacts to the historically significant “greenbelt” would also impact M-NCPPC's current Level of Service standards by removing parkland and valuable trails amenities. Likewise, the trees in this area are shown to be present continuously in aerial photographs that dates back to 1938. Trees in the area are close to 100-years old and could be older. The value of carbon sequestering provided by these “gentle giants” is immense and would not be replicated/equaled for another 100 years by newly planted trees. The DEIS fails to acknowledge this issue and as a result, there is no sense of urgency or importance expressed in the document. How does the project sponsor propose to avoid and/or mitigate these significant impacts?.
118	104	Sec 4.7, pg. 4.7-4, Recreation Facilities and Parkland	Please provide an exhibit showing the 800-foot centerline and the parks and public properties within that centerline.

	A	B	C
119	105	Sec 4.7, pg. 4.7-4/5, Recreation Facilities and Parkland	To better understand overall park land impacts and mitigation, please provide a chart that itemizes impacts to Federal, State, M-NCPPC and local parkland by County. Include acres to be impacted along with facilities or special habitat conditions, such as mature forest, wetlands of special state concern etc.
120	106	Sec 4.7, pg. 4.7-5, Recreation Facilities and Parkland	Nearly 2,000 acres of Federal, state and local recreational facilities and parkland occur within the project affected environment. Please provide a chart indicating the total acreages in each County. These parks provide significant open space requirements and in Prince George's County occur within the Priority Preservation Area. These impacts will negatively affect Level of Service standards that include active recreation, trails and conservation land throughout Prince George's County. Mitigation in the form of replacement lands, not funding to support environmental education and similar projects, is warranted.
121	107	Sec 4.7.3, pg. 4.7-6/7, Table 4.7-1 Recreation Facilities and Parkland	Greenbelt Forest Preserve, Springfield Road Park, and Maryland City Park are listed as included in the National Park Service FLP program. Additional detail should be included to discuss the status and process regarding reversion to federal property and whether use of these lands would also create USDOT Act of 1966 Section 4(f) conflicts.
122	108	Sec 4.7.3, pg. 4.7-6/7, Table 4.7-1 Recreation Facilities and Parkland	There are several Prince George's County Parks owned and operated by the MNCPPC missing from Table 4.7 - 1 Recreational Facilities and Parklands in the SCMagLev Affected Environment. Please include the Colmar Manor (Capper Cramton property) in Colmar Manor, Maryland. Additionally, these parks should be evaluated with regards to impacts from underground tunneling: Publick Playhouse Cultural Arts Center located in Hyattsville, Bladensburg Community Center located in Bladensburg, Good Luck Estates Park located in New Carrollton and the Cherry Hill Cemetery Historic site located in Riverdale. Finally, please include the Montpelier Historic Site and the Montpelier Cultural Arts Center as being impacted visually and with respect to noise considerations.
123	109	Sec 4.7.4, pg. 4.7-7, 1st paragraph Recreation Facilities and Parkland	It is stated that: "FRA considers several impacts to public recreational facilities and parklands to be difficult to mitigate due to extensiveness of impact and/or uniqueness of park features." What is the justification for these impacts as many of the resources are irreplaceable? Avoidance and minimization efforts typical of resource impact permitting have not been fully considered. Additional analysis and discussion needs to be provided.

	A	B	C
124	110	Sec 4.7, pg. 4.7-8 Recreation Facilities and Parkland	The text suggests that the ballfields in Greenbelt will be removed as a result of project impacts. These fields are important to local Level of Service standards for parkland and active recreational fields located within this Service Area. Removing these active recreational fields will have negative consequences for the City's Parks and Recreation program and will have a domino effect the regional M-NCPPC fields. Similarly, removing more trees to relocate fields has a different set of consequences and effects. The DEIS fails to acknowledge this issue and as a result, there is no sense of urgency or importance expressed in the document. How does the project sponsor propose to avoid and/or mitigate these significant impacts?
125	111	Sec 4.7, pg. 4.7-8 Recreation Facilities and Parkland	Based on the current NEPA regulations, any proposed project impacts to resources will have to go through this same stringent process for review and approval.
126	112	Sec 4.7, pg. 4.7-8/9 Recreation Facilities and Parkland	The discussion on impacts to parkland seems to minimize the impacts to parkland in the way it breaks down the impacts according to Stations, TMFs, and alignments. It would be more meaningful to discuss overall parkland impacts as summarized in Table 4.7-2.
127	113	Sec 4.7, pg. 4.7-10/11 Recreation Facilities and Parkland	Are the Maintenance of Way (MOW's) impacts included in the calculations in Table 4.7-2? Impacts to Springfield Road Park seem to be smaller than what is represented in other parts of the text (See Figure 3.4-6) and therefore there is a discrepancy. Please clarify these impacts and refer to them consistently throughout the document.
128	114	Sec 4.7, pg. 4.7-12 Recreation Facilities and Parkland	Patuxent Research Refuge is the nation's ONLY National Wildlife Refuge established in order to conduct wildlife research. How will the impacts to this facility be avoided, minimized, mitigated or reduced?
129	115	Sec 4.7.4.2, pg. 4.7-12, 1st paragraph Recreation Facilities and Parkland	It stated that impact acreage at the Patuxent Research Refuge may change. Is it expected that impact area could increase? If so, impact increase potential should be included in the EIS.
130	116	Sec 4.7.4.2, pg. 4.7-12, 1st paragraph Recreation Facilities and Parkland	It is stated that Patuxent Research Refuge is partially funded by the federal Land and Water Conservation Fund. This is inconsistent with Table 4.7-1 and needs to be corrected in either the table or the text. If the Patuxent Research Refuge is funded by the Land and Water Conservation Fund and this approval cannot be obtained, are there alternative options and what are the implications on environmental impacts?

	A	B	C
131	117	Sec 4.7, pg. 4.7-12 Recreation Facilities and Parkland	To say certain parks are not developed at this time is true. However, construction of this project may limit or deter these valuable parklands from being developed in the future. To conclude that this project will have no impact on undeveloped parks ignores the community's expectation that these properties will remain open space or parkland, ignores the future potential to develop the properties into more active parks, and ignores the myriad of environmental benefits of open space in such a developed area. Please re-think your conclusion of "no impact."
132	118	Sec 4.7, pg. 4.7-13 Recreation Facilities and Parkland	Trails are a major element of the Prince George's County Department of Parks and Recreation's (DPR) Formula 2040 Functional Master Plan. Impacts that effect trail use directly impact the Level of Service standards that the DPR is trying to achieve over the next 20 years. How will these impacts be offset?
133	119	Sec 4.7, pg. 4.7-13 Recreation Facilities and Parkland	Impacts to Patuxent River Park and Springfield Park will have significant effects in the short and long term to wildlife, aquatic life, wetland areas, woodland canopy, mature forests and other unique habitats. The conclusion that impacts to the user experience would be minimal is missing a valuable point, that these are valuable resource conservation lands. How does the project propose to offset these impacts?
134	120	Sec 4.7, pg. 4.7-13 Recreation Facilities and Parkland	The project assumes that because there are no physical impacts to the parkland at Montpelier Hills Park that the tennis courts and picnic pavilion will remain viable. The visual and audible impacts of this project will change the value, aesthetics and the use of these facilities. The physical footprint is only one type of impact and this should be acknowledged in the DEIS.
135	121	Sec 4.7, pg. 4.7-14 Recreation Facilities and Parkland	The Bladensburg Waterfront Park is an active park that hosts more than 200,000 visitors annually. Visitors participate in festivals and other outdoor related activities where music is a main staple. Noise from MagLev construction and from the operation will have significant negative consequences on this popular venue. The Bladensburg Waterfront Park and the Anacostia Tributary Trail are adjacent to industrial zoned land. Currently there are no buildings over 3 stories in height and most are one to two story structures. SCMagLev proposes to build a 5-story tower adjacent to the park as a FA/EE station. This has the potential to alter the visitor experience at the park in negative ways, possibly affecting the usability of the park. The DEIS fails to acknowledge this issue and as a result, there is no sense of urgency or importance expressed in the document. What How does the project sponsor propose to avoid and/or mitigate these significant impacts?

	A	B	C
136	122	Sec 4.7, pg. 4.7-16 Recreation Facilities and Parkland	This page indicates that the Maintenance of Way construction will require 12.3 acres of clearing. These numbers are not reflected in Tables 4.7-2 or 4.7-3.
137	123	Sec 4.7, pg. 4.7-21 Recreation Facilities and Parkland	Clearing of mature forest for TBM Launch Retrieval sites, and construction should not be considered a short-term construction effect. Tree removal can have lasting long-term negative consequences environmentally and economically as the carbon sequestration that will be lost will be long-term and lasting. The time to re-establish a mature forest is significant and certainly long-term. How does the project intend to mitigate the potential for long-term negative impacts as the result of altering mature forests in well-established communities?
138	124	Sec 4.7.5, pg. 4.7-21-24, general	Impacts to parklands such as forest clearing for both alignments and all TMFs are not short-term.
139	125	Sec 4.7.6, pg. 4.7-24, general	As identified in Section 4.7.4.2, numerous and significant impacts to recreational facilities and parkland will result from any build alternative. Adequate impact minimization and/or mitigation have not been provided. Additional efforts need to be completed and included in the EIS.
140	**Chapter 4.8 - Cultural Resources**		
141	126	Sec 4.8.2.3, pg. 4.8-6, 1st bullet	Archaeological field surveys have not yet been completed and have the potential to identify additional historic resources. Additionally, Table 4.8-2 lists 19 locations with NRHP status as "Not Evaluated." Given this information, resource impacts are not fully known. Any archaeological resources identified as a result of additional studies, avoidance, preservation, extraction, etc. may effect project design and will effect costs and schedules. The additional investigations need to be included the EIS.
142	127	Sec 4.8.4, pg. 4.8-17-43, general	Deep tunnel boring will occur in the vicinity of some historic structures, such as Publick Playhouse (PG-69-28) and the Hecht Company Warehouse. Settling is known to occur as a result of tunnelling. Resultant, potential impacts to historic structures is not addressed.
143	128	Sec 4.8.4.2, pg. 4.8-17, 2nd paragraph	The stated viaduct and tunnel percentages for build alternative J1 are not consistent with other report sections (noted in Chapter 3). These need to be corrected.
144	129	Sec 4.8, Cultural Resources - Archeology General Section	The DEIS and the Phase IA archeology report do not show the limits of disturbance or effects to historic properties for construction of the viaduct that will run along the Baltimore-Washington Parkway (BWP). The viaduct cannot possibly be constructed without removing a large number of trees along the BWP or without grading and excavating for construction of the piers on which the viaduct will run. Why are these impacts left out of the DEIS?

	A	B	C
145	130	Sec 4.8, Cultural Resources - Archeology General Section	The DEIS states that all build alternatives will likely impact historic resources, including USDA's Beltsville Agricultural Research Center (BARC) and NPS's BWP. The visual prominence of SCMAGLEV System elements will alter the scenic character along and above the BWP. The viaduct would be located up to 150 feet higher than the elevation of the travel lanes of the parkway and would cross over the parkway to access TMF facilities. Although it is noted that there will be impacts from the viaduct, there are no illustrations of what the viaduct will look like along either side of the BWP or how many trees would have to be removed. There has been great effort to preserve the scenic nature of the BWP that runs through the northern portion of Prince George's County. The DEIS also does not address the limits of disturbance (LOD) of the viaduct or what cultural resources are located within that LOD.
146	131	Sec 4.8, pg. 4.8-20, 21, 25, 26 Cultural Resources - Archeology	**1) Martins Woods (PG:72-068)** This residential district is eligible for listing in the National Register of Historic Places. Further investigation of the Martins Woods subdivision should be conducted to determine if this subdivision or any individual resources within it may meet Prince George's County Historic Site or District criteria. There is no data on the extent of the visual, noise, and vibration impacts to this community from the everyday operation of the SCMAGLEV. It is impossible to determine the adverse effects from these factors on the Martins Woods subdivision from the information presented in the DEIS. Additional information should be provided for more detailed analysis of impacts.
147	132	Sec 4.8, pg. 4.8-21, 26, 35, 36 Cultural Resources - Archeology	**2) Greenbelt Historic District (PG:67-004) – Historic District and cultural landscape, NRHP-listed/NHL** ***BARC Airfield TMF and BARC West TMF - Potential Impacts*** Temporary Impacts: Possible visual impacts on setting; noise and vibration impacts due to cut-and-cover tunnel TBM launch-retrieval site and construction LOD. Direct physical impact on character-defining elements with Alternatives J1. Permanent Impacts: Possible visual impacts on setting; noise and vibration due to TMF ramps (viaduct) to BARC Airfield TMF. Direct physical impacts on character-defining landscape elements with Alternatives J1.

	A	B	C
148	139 cont.	Sec 4.8, pg. 4.8-21, 26, 35, 36 Cultural Resources - Archeology	The Greenbelt Historic District is not listed in the 2010 Prince George's County Historic Sites and Districts Plan as a local Historic District. However, the district does meet the criteria to be listed as a Prince George's County Historic District. The Greenbelt Historic District (PG:67-004) is listed as a National Historic Landmark (NHL) in the National Register of Historic Places. The draft DEIS indicates that only a "sliver" of the NRHP Historic District will be impacted by this project. The DEIS fails to note the acreage of the impacts and that the portion of the area that will be impacted includes the greenbelt that surrounds the NHL. The greenbelt around the planned town is a significant feature of the overall design of this historic community. A portion of the original greenbelt surrounding the town was taken away for the construction of the BWP in the 1950s. Any additional diminishment of the greenbelt will adversely affect the design, setting, and feeling of this NHL. The DEIS fails to acknowledge this issue and as a result, there is no sense of urgency or importance expressed in the document. How does the project sponsor propose to avoid and/or mitigate these significant impacts? The tunnel portal with hood in the J1 configuration places this feature just to the north of the Hamilton Family Cemetery (PG:67-003-03c) and within the Greenbelt Forest Preserve. There will also be impacts from the vibration and noise of the train moving below the ground surface and exiting the proposed tunnel opening in the greenbelt area. These impacts are not thoroughly discussed in this study. Noise and vibration could impact the integrity of the historic buildings within the NHL, as most of the structures were built between the 1930s and 1950s. This information is necessary to fully evaluate impacts to these resources.

	A	B	C
149	133	Sec 4.8, pg. 4.8-21, 26, 35, 36 Cultural Resources - Archeology	**3) Goddard Space Flight Center (PG:64-019) - Research campus, NRHP-eligible** BARC Airfield TMF and BARC West TMF The Goddard Space Flight Center is not listed in the 2010 Prince George's County Historic Sites and Districts Plan as a Historic Site, Resource or District. However, the site would meet the criteria to be listed as a County Historic District. There is one Prince George's County Historic Site within the Goddard Space Flight Center campus: PG:64-006 GSFC Magnetic Test Site. This site will not be directly impacted by the SCMAGLEV project. However, the overall campus will be impacted by construction of the proposed SCMAGLEV, which will likely be visible from the Goddard Space Flight Center. There is no data provided to determine the possible noise, vibration or visible impacts to the Goddard Space Flight Center. Permanent Impacts: Visual, noise, vibration impacts due to the TMF ramps (viaduct). MOW facility, overhead electric permanent, road relocation and reconstruction. TMF footprint, surface parking, and two substations. Physical impacts within the district boundary due to the permanent access road in the property boundary.
150	134	Sec 4.8, pg. 4.8-21, 26 Cultural Resources - Archeology	**4) Beltsville Agricultural Research Center (PG:62-014) – Research facility and cultural landscape, NRHP-eligible** BARC Airfield TMF and BARC West TMF - Potential Impacts to Above Ground Resources: Temporary Impacts: Visual, noise, vibration, and physical impacts on character-defining elements and design due to the construction LOD for new powerlines and construction LOD (miscellaneous). Permanent Impacts: Visual, noise, vibration, and physical impacts on character-defining elements and design due to the TMF ramps (viaduct). MOW facility, overhead electric permanent, road relocation and reconstruction, TMF footprint, surface parking, two substations, and permanent access road. The Beltsville Agricultural Research Center (BARC) is eligible for listing in the National Register of Historic Places. BARC is not listed in the 2010 Prince George's County Historic Sites and Districts Plan as a Historic Site, Resource or District. There will be major physical and visual impacts to the Beltsville Agricultural Research Center from both the J and J-1 proposed routes. This proposal will adversely affect the design, setting, and feeling of this NRHP-eligible site.

	A	B	C
151	cont.	Sec 4.8, pg. 4.8-21, 26 Cultural Resources - Archeology	The DEIS notes on pp. 4.4-17 that the BARC West TMF would be in proximity to residents along Gross Lane and Odell Road and would require partial acquisition from a residential yard, as well as result in noise and visual impacts due to changes in aesthetics. Many of the houses along Gross Lane were constructed by descendants of Edward T. Gross, an African American farmer who bought up several small parcels of land totaling about 30 acres. The Edward T. Gross House (PG:62-16) was constructed in 1916 using timber from the land that was locally milled. Family members and neighboring farmers provided the labor. The house remained in the family for three generations. The house was recently demolished due to abandonment and disrepair. The site of the Edward T. Gross House is listed in the 2010 *Prince George's County Historic Sites and Districts Plan* as a Historic Site.
152	135	Sec 4.8, pg. 4.8-21, 26 Cultural Resources - Archeology	The DEIS does not acknowledge the site of the Pleasant Grove Methodist Episcopal Church Site and Cemetery (PG:64-16), which is located on the west side of Springfield Road near the BARC Airport. Some of the proposed changes to Springfield Road may affect this site and its associated cemetery. In 1815, five trustees of the church acquired one acre out of the Pleasant Grove land patent for the establishment of a Methodist Episcopal Church on the property. The church was located on the Bladensburg Circuit. Pleasant Grove Methodist Church served the white and African American community until 1861, when the issue of slavery divided the church along racial lines. Perkins Chapel (PG:64-5) was established a mile southeast of Pleasant Grove Methodist Church in 1861 with the construction of a new building at that location to serve the white congregation. The Pleasant Grove meeting house continued to serve the African American congregation until it closed in 1916. Most of the congregation transferred to Ross Memorial Methodist Church in Bowie. In 1942 the United States of America condemned the two acres belonging to the Pleasant Grove Methodist Church through Eminent Domain. Several interments were made in the cemetery after its acquisition by the federal government, including members of the Dugan family, who lived in the area where the BARC airfield is located. Historic Preservation staff have compiled a draft Maryland Inventory of Historic Properties form for this site. This information is not discussed or acknowledged in the DEIS.
153	136	Sec 4.8, pg. 4.8-21, 26 Cultural Resources - Archeology	There is no discussion in the DEIS of possible impacts to BARC from the viaduct that will run along the east or west side of the BWP. The limits of disturbance for the viaduct are not shown and it is unknown if impacts will occur to BARC due to construction of the viaduct. Visual impacts from the viaduct are also not discussed.

	A	B	C
154	137	Sec 4.8, pg. 4.8-21, 26 Cultural Resources - Archeology	**5) Baltimore-Washington Parkway (PG:69-026)** BARC Airfield TMF and BARC West TMF - Potential Impacts to Above Ground Resources: Temporary Impacts: Visual impacts on setting, noise, vibration and physical impacts on character-defining landscape elements without screening due to construction LOD. Permanent Impacts: Visual impacts on setting, noise, vibration, and physical impacts on character-defining landscape elements without screening due to the TMF ramps. The DEIS notes that National Park Service concerns (p. 22) include direct and indirect impacts to the BWP, including flyover ramps over the BWP, locations of SCMAGLEV system elements, and the need for visual screening/buffers from surface features. NPS has indicated a preference for tunnels in BWP areas.
155	138	Sec 4.8, pg. 4.8-21, 26 Cultural Resources - Archeology	The BWP is listed in the National Register of Historic Places and is also listed in the 2010 Prince George's County Historic Sites and Districts Plan as a Prince George's County Historic Site. The parkway will be subject to visual impacts on the setting, feeling, design and materials of contributing landscape design. Extensive efforts have been made over the years to reduce visual impacts to the Parkway in Prince George's County to preserve its park-like setting. The viaduct for the SCMAGLEV train is estimated to reach as high as 150 feet above the parkway. Flyover ramps over the parkway are also proposed to access the maintenance yards on the BARC property. This will be a major visual intrusion on its design, setting, and feeling. Vibration and noise will also be elevated by the train running frequently over the viaduct. The viaduct and train operation will have major visual and sensory impacts on the parkway. There is no discussion of the number of trees that will have to be cut down to accommodate the viaduct. There is also no detailed discussion of the extent of any grading that will be necessary to construct the viaduct or access roads that may be necessary to maintain the viaduct. We concur with the conclusion of the NPS that tunnels along the BWP are preferred to the above-ground viaducts. This would reduce the major impacts to the BWP, BARC, and the Greenbelt NHL.
156	139	Section: 4.8 Cultural Resources - Archeology	MIHP Form for 7606 Harmans Road - Photograph Captions Page "Lanham, Prince George's County, Maryland." This is the wrong locality. This property is located in Anne Arundel County.
157	140	Section: 4.8 Cultural Resources - Archeology	MIHP Form for 7608 Harmans Road - Photograph Captions Page "Lanham, Prince George's County, Maryland." This is the wrong locality. This property is located in Anne Arundel County.

	A	B	C
158	141	Page: 4.8-29 Section: 4.8 4.8 Cultural Resources - Archeology	Impacts to Archeological Resources: Table 4.8-6 Alignment J - 18PR440 - Permanent impacts: Partially or fully destroyed by construction. 18PR1127 - Permanent impacts: Partially or fully destroyed by construction. Staff Comment - If this alignment is selected, additional archeological investigations and possibly Phase III data recovery will be necessary on these sites. Table 4.8-7 Alignment J1 - 18PR1128 - Permanent impacts: Partially or fully destroyed by construction. Comment - If this alignment is selected, additional archeological investigations and possibly Phase III data recovery will be necessary on this site.
159	142	Page: 4.17-5 Section: 4.17 4.8 Cultural Resources - Archeology and 4.17 Noise and Vibration	The vibration study notes that heavier buildings (such as masonry structures) are less susceptible to vibration than wood-frame building buildings because they absorb more vibrational energy. **Comment:** Most of the buildings in the Greenbelt National Historic Landmark are frame structures. Vibration from the trains could cause structural damage to the buildings, as they could not absorb as much of the vibrational energy. The DEIS analysis fails to acknowledge this potential impact. Should this occur, how will the project sponsor minimize or reduce this impact?
160	143	Sec 4.8.5, pg. 4.8-44, 1st paragraph	Project Programmatic Agreement updates should be included as the EIS progresses to maintain public awareness.
161	144	Appendix B.4 Cultural Resource Maps	These maps delineate the Area of Potential Effects (APE) at the proposed SC Maglev facilities. The more significant impacts in Prince George's County are as follows: FA/EE - Bladensburg Waterfront Park - the APE is shown slightly inside the Park's east side; Tunnel Laydown and TBM Launch Site - Martins Woods - for the J-01 - J-06 Alignments the APE is on the west side, for J1-01 - J1-06 Alignments, the APE is shown going into the Greenbelt Historic District, and BARC (on west side of BPW), Alignments J-01 - J-06 the APE goes into Goddard and BARC, (viaduct shown going through the Carl Thies House?); MOW - for the J1-01 - J-06 Alignments, this is shown to be constructed in Springfield Road Park (the part of the west side of BPW), and for J-01 - J-06 it is shown in the Park on the east side of BPW. Please clarify the Carl Theis House impact, and discuss avoidance and/or mitigation efforts.
162	**Chapter 4.10 - Water Resources**		

	A	B	C
163	145	Sec 4.10.1, pg. 4.10-1, bullet list	Groundwater can also be a geologic resource. Consider additional groundwater discussion as a part of geology.
164	146	Page: 4.10-4 Section: 4.10.3.1 Project Affected Environment Resources	"The Anacostia and Patuxent Rivers have an existing undeveloped corridor surrounded by urban lands (in Prince Georges County). They are both bounded by forest, wetlands and grasslands for extensive sections of the rivers…. The surrounding lands are part of a MDNR Green Infrastructure system… (page 4.10-11)." Upper Beaverdam Creek is the least developed sub-watershed within the Maryland portion of the Anacostia Watershed, and is used by MDE and other agencies as a reference stream for the Coastal Plain portion of the Anacostia. The Anacostia Watershed is also a designated location by Urban Waters Federal Partnership working towards the restoration of the Anacostia River. USEPA studies of the Anacostia indicate that it has lost 6500 acres of wetlands and 70 percent of its forest cover, resulting in impervious surfaces covering more than 25 percent of watershed due to urbanization. Further impacts to the ecological resources in the headwaters of Upper Beaverdam Creek watershed will result in downstream impacts to the watershed where there are limited opportunities for mitigation of impacts. Further discussion should be provided concerning avoidance and minimization of impacts within the LOD, and concerning downstream mitigation sites, opportunities and techniques.
165	147	Sec 4.10.3.2, pg. 4.10-8, 3rd paragraph	If all major waterways are identified as impaired except Beaverdam Creek, justification needs to be provided for the large impact to Beaverdam Creek, its tributaries, and associated wetlands due to the BARC TMF's. This is does not align with avoidance and minimization procedures required through the Joint Maryland Department of the Environment and U.S. Army Corps of Engineers permitting process.
166	148	Sec 4.10.3.3, pg. 4.10-9, 2nd paragraph	This section identified the location of existing well-head protection areas (WHPAs) within a one mile radius of Build Alternatives and are shown in Figure 4.10-2. FRA needs to discuss how the SC Maglev tunneling and construction for the associated facilities will have no impact to the WHPAs. In addition, the document only identifies the larger water supply wells and does not address the existence of smaller residential wells. A list of the location of those wells along with their depths is needed to evaluate potential impacts.
167	149	Sec 4.10.3.3, pg. 4.10-9, 2nd paragraph	If it is determined that there will be impacts to source water quantity and quality, implications for public health and costs to provide alternate water can be substantial. Discussion should be included to address this.

	A	B	C
168	150	Sec 4.10.4.2, pg. 4.10-12, 5th paragraph	It is stated that additional details of roadway and utility relocations, as well as spoil material placement, will be addressed during permitting and final design. These have the potential to increase impacts. As such, impacts and subsequent mitigation needs are not fully addressed. Impacts totals must be known to accurately determine the complete environmental impact prior to the issuance of permits.
169	151	Sec 4.10.4.2, pg. 4.10-13, 1st paragraph	It is stated that grading, vegetation clearing, new structures, and conversion of pervious to impervious surfaces may have an impact on watershed functions. Such activities will undoubtedly have negative consequences on watershed functions. The use of "may" seems to be a deliberate attempt to soften concerns. Please outline and describe all potential impacts
170	152	Sec 4.10.4.2, pg. 4.10-13, 2nd paragraph	The statements: "FRA evaluated areas of existing impervious surfaces in the landscape with consideration of existing urbanized and developed environments. Areas with no change in impervious surfaces are not anticipated to result in a change to the function of the watershed." seems to have only considered impervious additions as a potential impact on watershed function. Discussion should be included to address other factors including forest clearing, grading, stormwater management, wetland loss, and stream piping.
171	153	Sec 4.10.4.2, pg. 4.10-14, 3rd paragraph	The statement: "The alignments are largely located along the existing transportation corridor where risks to runoff and pollutants currently exist." implies that a little more runoff and pollution will not be detrimental because it would occur near other existing runoff and pollution. Can this be clarified or backed up by scientific studies?
172	154	Page: 4-10-14 Section: 4-10.4 Environmental Consequences: Effect on Watersheds, Alignment	“Permanent watershed impacts range from approximately 900 acres to 1,100 acres of overall watershed disturbance” (page 4.10-13). Permanent impacts “would be more evident in the Little Patuxent River Watershed, Anacostia River Watershed, and the Patuxent River Watershed. Both direct and indirect impacts include the removal of vegetation within wetlands and riparian forest, construction within the floodplain, and potential affect to water quality. Based on these proposed impacts to water resources and the indirect effects to the surrounding natural environment more detailed information about potential downstream impacts and mitigation are needed. No information has been provided in the affected subwatershed outside and downstream of the project limits.
173	155	Sec 4.10.4.2, pg. 4.10-15, 4th paragraph	The BARC West TMF and most of the BARC Airstrip TMF are located in the Beaverdam Creek catchment area of the Anacostia River watershed. Significant impacts are proposed in headwater areas and will cause loss of forest, wetland, stream channel, floodplain capacity, sensitive plant communities, and other sensitive habitats. Discussion needs to be included to address watershed functional losses in these areas.

	A	B	C
174	156	Page: Page 4.10-16 Section: Effects on Watershed, TMF	The BARC Airstrip TMF and BARC West TMF would each affect approximately 200 acres. The biggest impact would occur on the Anacostia River Watershed (Tier II Watershed), including Beaverdam Creek tributaries and headwaters. With approximately 200 acres of permanent impact proposed for any of the TMFs, it is anticipated that both the Anacostia and the Little Patuxent Watersheds will experience a change in…their ability to filter and store water in the soil and may risk a change in status of Stronghold Watershed. Hydrology patterns in and surrounding any of the TMF sites will also be altered, which may influence seeps and low-lying areas that may support sensitive species…" How does the project sponsor propose to avoid and/or mitigate these significant impacts?
175	157	Page: 4.10-17 -18 Section: Effects on Water Quality	Viaducts will cross Beaverdam Creek, the Patuxent River, and smaller unnamed tributaries, "introducing the threat of increased runoff bringing larger quantities of pollutants into the affected water resources," in addition to the clearing of vegetation "over and surrounding these waterways. The effects noted here are anticipated to be of greater significance in areas of existing natural environments, such as within the parklands of Prince George's Counties, and on Federal properties such as, Patuxent Wildlife Refuge (PRR) and Beltsville Agricultural Research Center (BARC) (pages 4.10-17 – 04.10-18). How does the project sponsor propose to avoid and/or mitigate these significant impacts?
176	158	Sec 4.10.4.2, pg. 4.10-18, 1st paragraph	It is unclear what "The effects of the alignments alone may contribute to the overall impairment of nearby waterways as a result of a Build Alternative but are not expected to affect a designated waterway status." is intended to mean. Clarification of this statement should be provided.
177	159	Sec 4.10.4.2, pg. 4.10-18-19, TMF section	Water quality impacts due to TMF construction have the potential to cause significant impact to and loss of sensitive habitat and species. Discussion should be provided to justify the need for the TMF location to be at any one of the proposed sites.
178	160	Sec 4.10.4.2, pg. 4.10-19, 2nd paragraph	Any TMF will have to address stormwater management from impervious areas and therefore must minimally have pervious areas to meet Environmental Site Design requirements. Otherwise the limit of disturbance and therefore impacts will have to be increased to accommodate stormwater practices.
179	161	Sec 4.10.4.2, pg. 4.10-19, 2nd paragraph	Total Optimum Daily Load should be corrected to be Total Maximum Daily Load
180	162	Sec 4.10.4.2, pg. 4.10-21, 4th paragraph	TMF connection to existing infrastructure may result in additional impacts to water resources and therefore should be determined before a final project build alternative decision is made.

	A	B	C
181	163	Sec 4.10.4.2, pg. 4.10-21, 5th paragraph	Based on GGAO concerns for vibration impacts, similar types of impacts from subsidence due to groundwater modification could also result in long-term or permanent research losses. The potential risk and possible mitigation options should be addressed.
182	164	Page: 4.10-22 Section: Effects pm Floodplains	Effect on Floodplains: "All proposed Build Alternatives would result in permanent floodplain impacts. Additional studies including a hydraulic and hydrology analysis would be required as part of permitting and final design to estimate the total impacts of the proposed structures on floodplain elevations and functions. If these studies find that flood elevation would change, floodplain storage mitigation would be proposed, if required." (page 4.10-22). Please provide additional hydrologic and hydraulic analysis to fully evaluate the impacts and costs of floodplain mitigation for the project and allow a full evaluation of impacts.
183	165	Sec 4.10.4.2, pg. 4.10-23 Short-Term Construction Effects	Effect on Watersheds: Construction of all Build Alternatives will create temporary impacts to watersheds, including "increased runoff, additional pollutant and sediment load to surface waters and groundwater while temporary indirect effects may include disruption to species or habitat. The Project Sponsor will return areas with temporary surface disturbances to their original state if feasible, or to natural conditions, through restoration and/or replanting in all possible locations, with the goal of maintaining pervious surface coverage. Selective limb and root pruning would be conducted to reduce damage to plants" (page 4.10-27). The overall construction timeframe is seven-years, but little information has been provided about how long different types of impacts will persist until "restoration" begins or is completed, or how long of a restoration period is anticipated after completion of the MAGLEV.

	A	B	C
184	166	Sec 4.10.4.3, pg. 4.10-27, 2nd paragraph	Construction effects will result in significant surface water resource impacts. Groundwater impacts are not yet fully understood, and groundwater changes may also impact surface waters and therefore watershed functionality. Significant clearing of forest will occur from the SC Maglev construction. Resource mitigation locations have not yet been determined. Some resources like mature forest take many years to replace with forest of similar functionality; reforestation may also change species composition or open the potential for introduction of non-native/invasive species. Additionally, sensitive species habitat is difficult to impossible to mitigate. These all have potential to change watershed function. As such, clarification should be provided for the basis of statement that "it is not anticipated that overall watershed functions would be lost due to short-term construction operations," merely by providing stormwater management, BMPs, and minimization and mitigation measures. What long term monitoring process will be in place to monitor the changes and how will change be implemented?
185	167	Sec 4.10.4.2, pg. 4.10-28 Short-Term Construction Effects	Effect on Water Quality: “Sediment deposition in adjacent waterways may occur during construction due to grading and forest/vegetation clearing needed for laydown/staging areas and construction equipment. Sedimentation in waterways could result in cloudy water, which could prevent natural vegetation growth and indirectly affect species in search of food and habitat in the waterways. Temporary stream crossings for construction access are anticipated and would result in temporary disturbance to streambed habitat and hydrology from the use of stream diversions, temporary culverts, and other standard construction and access elements. Other impacts to water quality may occur due to the introduction of pollutants from the use of chemicals and fuels during construction.” How does the project sponsor propose to avoid and/or mitigate these significant impacts? What long term monitoring process will be in place to monitor the changes and how will change be implemented?
186	168	Sec 4.10.4.3, pg. 4.10-28, 2nd paragraph	Groundwater impacts on water quantity and quality are not yet fully understood and may have public health implications, particularly if private wells are impacted. Potential effects of dewatering and minimization and mitigation strategies should be addressed.

	A	B	C
187	169	Sec 4.10.4.2, pg. 4.10-29 Short-Term Construction Effects	Effects on Floodplains: "During construction, direct, short-term effects would occur within the 100-year floodplains in…areas…identified for cut/cover operations, tunnel boring machine locations for tunnel construction, and around large river crossing largely due to vegetation removal and site grading. Additionally, compaction from construction equipment may affect the softer soils located within floodplain and may affect the base floodplain elevation. All areas without an above-ground structure would be returned to original conditions or as close to original conditions as possible. In general, Build Alternatives J-01 through J-06 would also incur more temporary impacts to floodplains…due to the greater proposed above ground viaduct[s]" (pages 4.10-28 – 4.10-29). How does the project sponsor propose to avoid and/or mitigate these significant impacts?
188	170	Sec 4.10.5.1 pg. 4.10-30, 2nd paragraph	US EPA feature mapping and guidance should be incorporated into the EIS.
189	171	Sec 4.10.5.1- 2, pg. 4.10-30-32, general	Minimization measures and mitigation options should be discussed in the EIS as well as restoration and corrective actions in the event that things don't go as planned.
190	**Chapter 4.11 - Wetlands and Waterways**		
191	172	General	Wetland and waterway impact quantities broken out by jurisdiction should be provided.
192	173	Sec 4.11.2.2, pg. 4.11-2, 2nd paragraph	Remaining areas that were not previously accessible will need wetlands to be field delineated. GIS Mapping is a guide for wetland limits, but boundaries always differ. This work should be completed prior to FEIS completion.

	A	B	C
193	174	Sec 4.11.3.1, pg. 4.11-5/6 Wetlands	"All wetlands identified are nontidal palustrine systems and are classified into four types: PEM – palustrine emergent; PSS – palustrine scrub-shrub; PFO – palustrine forested; and PUB – palustrine unconsolidated bottom (pond-like). Of those wetlands noted above, FRA identified wetlands classified as NTWSSCs [Nontidal Wetlands of Special State Concern] based on DNR mapping, located along three major waterways and their tributaries within the SCMAGLEV Project Affected Environment, including Beaverdam Creek, Beck Branch, and the Patuxent River (Appendix B.3 Map Sheets 5 and 6). As shown in Table 4.11-1, NTWSSC range from seven acres to as much as 30 acres of the total wetland acreage identified per Build Alternative. In coordination with MDNR, FRA determined that these NTWSSCs provide habitat for RTE donate (a dragonfly or damselfly), fish, and plant species (page 4.11-5). The wetland systems include: • Riparian buffers that support rare, threatened, and endangered (RTE) species; • "Vernal pools, spring-fed wetland complexes, and forest-stream complexes containing RTE plants identified by the USFWS at [Patuxent Wildlife Refuge]" (page 4.11-6). • "High-quality" wetlands north of the Patuxent, west of the Baltimore Washington Parkway (BWP), which the USACE asked to be avoided. • A bald cypress swamp on the Beltsville Agricultural Research Center and National Park Service property east of the BWP.
194	175	Sec 4.11.3.1, pg. 4.11-5/6 Wetlands	A "No-net-loss" standard for disturbance to NTWSSC wetlands and buffers cannot replace the layered and unique ecological resources that would be lost or diminished by the impacts proposed. How does the project sponsor propose to avoid and/or mitigate these significant impacts?

	A	B	C
195	176	Sec 4-11.3.2, pg. 4.11.6/7 Waterways	Waterways include perennial, intermittent, and ephemeral. Depending on the build alternative, 37,000 to 43,000 linear feet of waterway crossings are expected; all of them include 10,500 linear feet near MD 200 and I-95. "Several waterways within the SCMAGLEV Project Affected Environment are notable for their position as headwater or first order tributaries, significant riparian habitat supporting potential RTE species, associated with NTWSSC, or designation as a state Scenic River (also detailed in Section 4.10 Water Resources). FRA identified the presence of several important waterways in the SCMAGLEV Project Affected Environment including the following: • Headwaters of Beaverdam Creek • Headwaters of Little Patuxent River • Headwaters for a tributary known to support sensitive species and habitats at the north end of PRR property • Beck Branch, bounded by NTWSSC • Beaverdam Creek, bounded by NTWSSC • Patuxent River, State Scenic and Wild River, bounded by NTWSSC • Little Patuxent River, upstream of NTWSSC • Four tidal waterways: Anacostia River (a State Scenic and Wild River); tributary to Anacostia River Middle Branch Patapsco River; and Gwynn's Falls" (pages 4.11-6 – 4.11-7). How does the project sponsor propose to avoid and/or mitigate these significant impacts?
196	177	Sec 4.11.4, pg. 4.11-8, 1st paragraph	The preliminary footprint of the Bladensburg FA/EE Facility includes an open channel in the Critical Area. This area can be expected to require Critical Area mitigation for the waterway buffer impact.
197	178	Sec 4.11.4.2, pg. 4.11-12, bulleted list	Wetland and waterway impacts will also likely be required for mitigation sites necessary to offset permanent losses of these resources. These impacts can be expected to increase overall total impact quantities.
198	179	Sec 4.11.4.2, pg. 4.11-8, 5th paragraph	MDE has not traditionally allowed stormwater management facilities in areas of wetlands and waterways. This will make TMF design more difficult. ESD practices may help maintain hydrology to offsite wetlands and waterways, but water quality can be expected to decrease. Potential for non-native and invasive species spread may increase as well. As a result, there will be function losses that should be mitigated. This deserves more discussion and clarification. How will this be mitigated?

	A	B	C
199	180	Sec 4-11.4.2, pg. 4.11-12, Build Alternatives	Impacts to waterways and wetlands include the following (quoted from page 4.11-8): • Complete or partial fill of a wetland system and disconnection and/or fill within a waterway as a result of placement of permanent structures such as viaduct piers or other standing structures including maintenance of way (MOW) facilities, fresh air/emergency egress (FA/EE) facilities, TMFs, or stations. • Conversion of wetland type (e.g. removal of vegetation from a PFO wetland resulting in a PEM wetland due to disturbance during construction and/or the systems location under elevated viaduct). • Relocation of waterways or creation of culverted systems, while maintaining hydrologic connection "All TMF options would directly and permanently impact wetland systems located within Tier II and Stronghold Watersheds (page 4.11-12)." How does the project sponsor propose to avoid and/or mitigate these significant impacts?
200	181	Sec 4.11.4.2, pg. 4.11-12 & 16, TMF section	In Sections 4.11.3.1 and 4.11.3.2, it was stated that several notable wetlands and waterways were identified and should be avoided due their unique character, high quality, or habitat value for rare species. This does not appear to have been heeded. Discussion should be included to explain the site selection of the TMF locations and why other locations were not included.
201	182	Sec 4.11.4.2, pg. 4.11-14, 2nd bullet	While waterway relocation may recreate stream habitat onsite, these are generally considered permanent impacts. This statement should be corrected or clarified.
202	183	Sec 4.11.5.1, pg. 4.11-18, last bullet	Harmans is in Anne Arundel County.
203	184	Sec 4.11.5.2, pg. 4.11-20-21, Mitigation	Based on the proposed wetland and waterway impacts, mitigation is expected to require offsite restoration and creation. Proposed mitigation should be included in the EIS to understand how loss of resources and functionality will be replaced and whether private or public land will be utilized.
204	**Chapter 4.12 - Ecological Resources**		
205	185	Sec 4.12.3.2, pg. 4.12-6 Ecological Resources: Forest and FIDS Habitat	Forest—According to DNR, the primary forested wildlife habitats in the MAGLEV project are mixed hard-wood and Coastal Plan oak-pine forests. "According to the USFWS, important communities of chestnut oak…and other mature native tree species of substantial size (greater than 24 inches diameter at breast-height) have been identified on Patuxent Research Refuge (PRR) lands" (page 12.4-5). The build alternatives contain between 31 and 39 existing forest mitigation easements" (page 4.12-5). How does the project sponsor propose to avoid and/or mitigate these significant impacts?

	A	B	C
206	186	Sec 4.12.3.2, pg. 4.12-6 Ecological Resources: Forest and FIDS Habitat	FIDS—FRA identified areas of forest and FIDS habitat most notably adjacent to the BWP within the National Park Service (NPS) property, BARC, PRR, Fort George G. Meade, City of Greenbelt properties, and north of MD 198 and in the vicinity of the MD 198 TMF site. Other notable areas of forest and FIDS habitat are located along Veterans Parkway (MD 410), at NASA property at Goddard Space Flight Center (GSFC) and at NASA land leased from BARC, at Springfield and Maryland City Parks, and Tipton Airport, at Patuxent River Park, and within WSSC property. FIDS have been identified in PRR as well as warblers and thrushes including the Kentucky warbler, Nashville warbler, Swanson's thrush, wood thrush, and northern parole. In a letter dated August 5, 2020, USFWS indicated the presence of other 'sensitive terrestrial and aquatic communities associated with forest such as vernal pools, sphagnum bogs, and heath communities'"(page 4.12-6). How does the project sponsor propose to avoid and/or mitigate these significant impacts?
207	187	Sec 4.12.3.2, pg. 4.12-7 Ecological Resources: Terrestrial and Aquatic Wildlife	DNR "identified the following aquatic resources and habitat within the Project Affected Environment: anadromous fish habitat from tidal waters into major stream systems; black bass and largemouth bass fisheries in the tidal areas; American eel habitat; and stocked trout management areas. According to Maryland Biological Stream Survey (MBSS) data, most rivers and streams intersecting the SCMAGLEV Project are characterized as supporting fish and benthic macroinvertebrate communities with high pollutant/impact tolerance. Other streams were noted to support several sensitive fish and benthic species or have suboptimal instream habitat and poor amounts of stable substrate for benthic species colonization.(pages 4.12-6 and 4.12-7) How does the project sponsor propose to avoid and/or mitigate these significant impacts?
208	188	Sec 4.12.3.2, pg. 4.12-7, 1st paragraph & Sec 4.12.4, pg. 4.12-11, 1st paragraph	Utilizing existing data such as MBSS information can be a valuable guide to consider existing conditions and ecological functions. However, there are few assessment locations. As such, there is very little chance that sample locations will fall within the project area. Functional assessments of the exact project-affected environment should be completed to prioritize impacts and provide valuable insight on the focus of offsite mitigation opportunities. Functional assessments should be completed and included in the FEIS.

	A	B	C
209	189	Sec 4.12.3.2, pg. 4.12-7 Ecological Resources: Terrestrial and Aquatic Wildlife	The project area contains "two large Nontidal Wetlands of Special State Concern (NTWSSC) and great blue heron (GBH) colonies near the Little Patuxent River, Patuxent River, and Beaverdam Creek crossings" and another heron colony near the MD 198 TMF. "The NTWSSCs support common and RTE species. Smaller wetlands include vernal pools critical for amphibian breeding and nesting, and emergent, forested, and marsh wetlands that support a wide variety of aquatic and terrestrial wildlife. As discussed in Section 4.10 Water Resources, DNR identified the Little Patuxent as a Stronghold Watershed, a designation for 'watersheds around the State that are the most important for the protection of Maryland's aquatic biodiversity. These locations are the places where rare, threatened, or endangered species of fish, amphibians, reptiles or mussels have the highest numbers'" (page 4-12-7). How does the project sponsor propose to avoid and/or mitigate these significant impacts?
210	190	Page: 4.12-7 Ecological Resources Section: 4.12.3.2: Terrestrial and Aquatic Wildlife	The USFWS notes the presence of migratory birds protected under the Migratory Bird Treaty Act. "Potential impacts to PRR, which encompasses a diversity of habitats, would necessitate coordination with PRR, a designated National Wildlife Refuge. At PRR, USFWS manages vegetation beneath the BGE right-of-way to promote and maintain scrub-shrub habitat, which functions as necessary habitat for shrub-nesting bird species. USFWS has noted that, in addition to FIDS species, PRR forests support active communities of bats, and has also identified that management of PRR habitats for pollinator species is a high priority for the Refuge" (page 4-12.7). How does the project sponsor propose to avoid and/or mitigate these significant impacts?

	A	B	C
211	191	Page: 4.12-9 Ecological Resources Section: Rare, Threatened, and Endangered (RTE) Species	The following RTE Species and habitats have been identified: • Northern long-eared bat. • "Patuxent River and Vicinity: The Patuxent "supports American brook lamprey and is designated as a Stronghold watershed due to presence and abundance of glassy darter populations. An extensive (Nontidal Wetland of Special State Concern) at PRR along the Patuxent River provides habitat for state-listed species: ten odonate (dragonfly and damselfly) species, two RTE fish species, and one RTE plant species. A globally rare natural community (coastal plain oak floodplain forest) occurs within the SCMAGLEV Project Affected Environment west of the BWP, north of the Patuxent River" (pages 4.12-8 – 4.12-9). • Beaverdam Creek and Vicinity: ▪ Two RTE plant species, white fringed orchid and northern pitcher-plant. ▪ American brook lamprey and three RTE odonate species. ▪ A highly globally rare/imperiled woodland community (pine barrens pine-oak woodland) occurs east and west of the BWP. How does the project sponsor propose to avoid and/or mitigate these significant impacts?
212	192	Page: 4.12-9 Ecological Resources Section: Rare, Threatened, and Endangered (RTE) Species	▪ The Beaverdam Creek NTWSSC (east and west of the BWP along Beaverdam Creek and Beck Branch) "provides habitat for three RTE odonate species, one RTE fish species, white fringed orchid, a globally critically imperiled natural community (coastal plain-piedmont acidic seepage swamp), and a globally imperiled natural community (coastal plain-piedmont acidic seepage fen). • PRR staff notified FRA of the presence of vernal pools, spring-fed wetland complexes, and forest stream complexes containing RTE and other at-risk plant and animal species" ▪ Yellow lance, a Federally endangered mussel species ▪ Spotted turtle, which is a petitioned species for listing ▪ Eastern box turtle, a designated species of greatest conservation need. • "BARC staff notified FRA of the presence of unique forest communities supporting pitch pine… and dwarf chinquapin oak" (page 4.12-9). Since the above species would be impacted by the project, how does the project sponsor propose to avoid and/or mitigate these significant impacts?
213	193	Sec 4.12.4.2, pg. 4.12-15, 1st paragraph	FIDS impacts have two categories, FIDS edge and FIDS interior. Impact calculations are dependent on both type and amount of impact to edge and interior. Do FIDS impacts include consideration for edge vs interior impact? If not, impact quantities should be updated.

	A	B	C
214	194	Sec 4.12.4.2, pg. 4.12-13, last paragraph	It is unclear if the SC Maglev project will adhere to CAC FIDS guidance. The statement: "FRA will consider Site Design Guidelines..." is an ambiguous statement that should be clarified. Guidelines should be followed to minimize FIDS habitat loss and determine that amount of FIDS mitigation to offset losses.
215	195	Sec 4.12.4.2, pg. 4.12-13 Ecological Resources: Build Alternatives	Effects on FIDS: Removal of habitat and increase in noise from the removal of trees would affect FIDS. “An indirect impact of forest and FIDS habitat loss is the potential for change in species composition and a decrease in biodiversity, with a less complex vegetative structure. This change may result from increased light and wind or a decrease in humidity. There is then the potential for a ripple effect to other species in the area, both flora and fauna. These changes can make the ecosystem more vulnerable to invasive species and introduce more competing or predatory edge species” (page 4.12-13). What are the effects on FIDS beyond the limits of disturbance? Example: J1 alignments would clear 40 acres of City of Greenbelt property and in parks at Maryland City Park (Anne Arundel County) and Patuxent River Park (Prince George’s County).
216	196	Sec 4.12.4.2, pg. 4.12-15 Ecological Resources: Build Alternatives	“All three TMF options would require…clearing of over 90 acres of forest and FIDS habitat. A comparison of the impacts includes the following” (page 4.12-15): • MD 198 and BARC West TMF: between 150 to 180 acres, respectively. • The BARC Airstrip TMF: 92-93 acres. • MD 198 TMF: 20 acres of permanent impact to a MET easement, plus impacts to three or four forest conservation easements. The removal of FIDS habitat extends far beyond the limit of disturbance for the project but must address the loss of FIDS buffer areas (300-foot in width) and the fragmentation of contiguous large blocks of forest. Further information should be provided about the full loss of FIDS habitat and FIDS buffer area, the potential areas to mitigation for the loss of FIDS habitat, and the timeframe and expense which would be required to replenish the lost FIDS habitat. • MD 198 TMF: 20 acres of permanent impact to an MET easement, plus impacts to three or four forest conservation easements.
217	197	Sec 4.12.4.2, pg. 4.12-16, 3rd paragraph	It is stated that local wildlife may adjust vocal behavior to adapt to increased anthropogenic noise. Is this reasonable to expect? Explanation and research citations should be provided to document this. It is more likely that the impacted species will utilize the area in a diminished capacity resulting a functional degradation.

	A	B	C
218	198	Sec 4.12.4.2, pg. 4.12-16-17, alignment section	Avian strikes are not discussed but need be addressed. Given the high operation speed of the SC Maglev, increased potential exists for bird strikes will occur as they fly across and/or perch on the viaduct. Discussion should be included on mechanisms that can be employed to eliminate or reduce this threat.
219	199	Sec 4.12.4.2, pg. 4.12-18, 1st bullet	Northern long-eared bats utilize mature forests for foraging, summer roosting, and rearing of young. Populations are in decline. As such, USFWS requires specific consultation on projects requiring 15-acres of forest clearing or greater to minimize direct impact to this sensitive species. This coordination needs be completed and included in the FEIS.
220	200	Sec 4.12.4.2, pg. 4.12-18, 1st bullet	Northern long-eared bats as well as other bat species use passive listening and echolocation for foraging which makes them particularly sensitive to noise. Increased noise due to SC Maglev operation may negatively effect bat behavior and foraging success resulting in direct indirect habitat degradation and loss. Potential effects and mitigative sound attenuation should be coordinated with USFWS and subsequently included in the FEIS.
221	201	Sec 4.12.4.2, pg. 4.12-18, 1st bullet	Similar to avian strikes, bat strikes are not discussed and should be addressed. Increased potential exists for strikes will occur as bats fly across the viaduct. Discussion should be included on mechanisms that can employed to eliminate or reduce this threat.
222	202	Sec 4.12.4.2, pg. 4.12-18-21, RTE section	Direct loss and degradation of numerous rare species habitats and sensitive communities will result in significant permanent impacts to these ecological resources. These impacts may have severe implications on the viability of these populations and communities. Mitigation to replace or sustain these resources will be difficult or impossible to achieve. Adequate justification for these impacts has not been provided in the DEIS.
223	203	Page: 4.12-18, 19 Ecological Resources Section: Rare, Threatened, and Endangered (RTE) Species	TMFs: All three would remove at least 90 acres of forest habitat and affect at least 30 acres of wetlands, including nontidal wetlands of special state concern and other habitat of sensitive species. “Although the BARC Airstrip may result in 50 to 60 percent fewer acres of forest and FIDS habitat removal, this TMF option would result in the largest impact to the Beaverdam Creek NTWSSC," including disruption to the system’s forested headwaters with new developed impervious surface” (page 4.12-18). How does the project sponsor propose to avoid and/or mitigate the TMF impacts?
224	204	Page: 4.12-18, 19 Ecological Resources Section: Rare, Threatened, and Endangered (RTE) Species	Effects on Rare, Threatened, and Endangered Species: “each Build Alternative removes, fragments, disturbs, and/or otherwise affects sensitive wildlife habitats, specifically” northern long-eared bat; swamp pink; peregrine falcon; odonate (dragonfly), fish, and mussel species; and “RTE plant species and globally rare natural communities associated with wetland hydrology” (pages 4.12-18 – 4.12-19. See these pages for information on the location of impacts). How does the project sponsor propose to avoid and/or mitigate these impacts?

	A	B	C
225	205	Page: 4.12-18, 19 Ecological Resources Section: Rare, Threatened, and Endangered (RTE) Species	The NPS has indicated that bat surveys should be more comprehensive, to include all declining bat species such as tricolored, Indiana, big brown, and little brown. A bat survey should be completed before the FEIS is completed, and potential impacts and options for avoidance, minimization and mitigation should be proposed.
226	206	Sec 4.12.4.2, pg. 4.12-19, last paragraph	Species surveys will be required and need to be completed to adequately determine 'take' potential. As such, environmental impacts have not been fully assessed for the project.
227	207	Sec 4.12.4.2, pg. 4.12-20, last bullet	The stated RTE species identified at the long-term construction laydown area near MD 200 and I-95 are not shown on Sheet 14 of the Natural Resources Mapping Atlas. This area is mapped on MD DNR's Sensitive Species Project Review Area GIS layer, and needs to be shown for consistency and accuracy.
228	208	Sec 4.12.5.1, pg. 4.12-21-24, general	Ecological resource impact avoidance and minimization has not been adequately considered. Resources actually seem to have been targeted in some areas, particularly at the TMF sites. Additional alternatives analysis and avoidance and minimization measures need to be considered and included in the EIS.
229	209	Sec 4.12.5.1, pg. 4.12-22, 3rd paragraph	Non-native and invasive species are increasingly common and are displacing native species. This is causing habitat degradation. The mid-Atlantic and northeastern United States are areas of particularly high non-native and invasive concentrations. Clearing and construction activities open the opportunity for spread of these detrimental species. Consideration should be given for invasive management and control throughout the entire project LOD.
230	210	Sec 4.12.5.1, pg. 4.12-23, bulleted list	It is stated that the project will comply with time of year restrictions for various ecological resources. Restrictions will greatly reduce timeframes for construction of above ground components. For instance, stated forest clearing restrictions for breeding migratory birds and breeding wintering birds, leaves March and September-October for forest clearing where habitats overlap. Is this feasible?
231	211	Sec 4.12.5.1, pg. 4.12-23, last paragraph	Provide discussion on how stormwater management BMPs can reduce impact to forest. Additionally, the statement: "The location of permanent stormwater management features associated with the alignments are proposed within or adjacent to areas already proposed for surface disturbance." is unclear as to whether the current LOD can adequately accommodate anticipated stormwater BMPs. Also note that stormwater BMPs are not permitted in locations of existing water resources which may require redesign.

	A	B	C
232	212	Sec 4.12.5.1, pg. 4.12-23, last paragraph	It is understood that DNR would make recommendations for protection of ecological resources. MDE would also be expected to have similar recommendations and even requirements for the maintenance of hydrology to downstream water resources.
233	213	Sec 4.12.5.1, pg. 4.12-24-25, general	Additional site design guideline incorporation and delineations, as well as, further studies need to be completed. These considerations should be factored into the build alternative selection. This information needs to be included in the EIS. Without this information, complete assessment of environmental impacts has not been documented.
234	214	Sec 4.12.5.1, pg. 4.12-25, 4th paragraph	The project will not be in compliance with the Maryland Forest Conservation Act. The build alternatives have clearly not considered priority preservation areas given the significant proposed clearing in wetlands, riparian buffers, FIDs habitat, 100-year floodplain, sensitive communities. Further, forests are likely to contain specimen trees, steep slopes and erodible soils. The EIS needs to be updated to discuss how this will be addressed.
235	215	Sec 4.12.5.1, pg. 4.12-25, 4th paragraph	Complete forest mitigation requirements are not currently known. Mitigation quantities to address forest conservation and FIDS habitat loss need to be quantified for a complete and accurate impact assessment. Additionally, forest mitigation opportunities and locations should be included in the EIS to understand impact offsets and anticipated functional replacement value.
236	216	Sec 4.12.5.1, pg. 4.12-25-26, bulleted list	Offsite mitigation locations for ecological resources other than forest are not included in the DEIS. Mitigation proposals and locations should be included for consideration of anticipated functional replacement value.
237	217	Sec 4.12.5.1, pg. 4.12-25-26, bulleted list	Estimated resource mitigation opportunities need to be discussed further. Estimated mitigation ratios should be included along with initial consideration for necessary mitigation quantities. For example, if preservation is utilized as a mechanism for mitigation, it typically requires very high mitigation ratios. As such, purchasing of property, easements, and/or credits under this approach may be costly. Additionally, offsite mitigation requires design, permitting, construction, and long-term monitoring. This work is likely to include additional short-term resources impacts that need to be included in the EIS. This work also has significant project cost implications that need to be included.
238	**Chapter 4.13 - Topography & Geology**		
239	218	Sec 4.13.4.3, pg. 4.13-8, general	The section does not address ground settlement related tunnel boring. Ground settlement typically occurs behind the tail shield of a tunnel boring machine. The magnitude of ground settlement can vary based on the ground conditions and other factors. The typical magnitude of ground settlement should be discussed for the diameter of tunnel machine to be used.

	A	B	C
240	219	Sec 4.13.4.3, pg. 4.13-8, general	Considering that ground settlement should be expected behind the tunnel boring machine, the possibility of adverse movement of critical utilities may occur. The consequences of movement of critical utilities should be discussed such as failure of a water main or sewer pipeline. The mitigation strategy to prevent failure of critical utilities should be discussed.
241	220	Sec 4.13.4.3, pg. 4.13-8, general	As commented above, ground settlement would typically be expected behind the tunnel boring machine. However, non-typical ground settlements can occur for reasons such as a blowout, equipment failure, operator error or unexpected geological conditions. The risk to adjacent facilities should be discussed due to a non-typical ground settlement along with mitigation strategies.
242	221	Sec 4.13.4.3, pg. 4.13-8, general	It is possible that a tunnel boring machine could become inoperable due to equipment failure or encountering an obstruction such as pile foundation or steel well casing. In this event, a rescue shaft may be required to access the front of the machine. The risk and impact on property owners and adjacent facility should be addressed if a rescue shaft is required.
243	222	Sec 4.13.3, pg. 4.13-3, Seismicity	The report states that the "SCMAGLEV Project is in an area of the U.S. with a low probability of seismic activity". Furthermore, the report states "the USGS identifies the eastern U.S. as a Stable Continental Region." The maps provided the National Earthquake Hazards Reduction Program (NEHRP) typically forms the basis for earthquake magnitude used in seismic design for structures and facilities. The locations of New Madrid, MO and Charleston, SC are within the stable region but have experienced singular earthquake events of magnitudes up to 8.2 (year 1811-1812) and 7.0 (year 1886), respectively. Therefore, intense earthquakes can occur in the Eastern US but are infrequent within the span of recorded human history. Intracontinental plate tectonics is not well understood and significant seismic events have and can occur within the eastern U.S.
244	223	Sec 4.13.2.2, pg. 4.13.2, Geologic Resources	The groundwater was not discussed as a geologic resource. The various aquifers affected by the project should be discussed. The preliminary geotechnical report indicates that at least two aquifers will be affected by the construction (Terrace Deposits and Potomac Group).
245	224	Sec 4.13.4.3, pg. 4.13-8, general	In areas where soil and groundwater contamination are known to exist, the measures to prevent cross contamination between aquifers should be discussed.
246	225	Sec 4.13.4.3, pg. 4.13-8, general	The effects of the construction work on users of well water should be discussed within the influence zone of the project.
247	226	Sec 4.13.4, pg. 4.13-6-8, general	Provide the limits of the influence zone where the ground has the potential to experience seismic as a result of the construction work.
248	227	Sec 4.13.4, pg. 4.13-6-8, general	Alignment J crosses under 2 schools in Prince George's County including Bladensburg High School and Rogers Heights Elementary School. Describe mitigation measures for tunneling under school buildings.

	A	B	C
249	228	Sec 4.13.4, pg. 4.13-6-8, general	Alignment J-01 crosses under schools 5 in Prince George's County including Bladensburg High School, Elizabeth Seton High School, Beacon Heights Elementary School, Lamont Elementary School and Eleanor Roosevelt High School. Describe mitigation measures for tunneling under school buildings.
250	229	Sec 4.13.4.3, pg. 4.13-8, general	Tunneling with the use of EPB-type tunnel boring machines requires the use of soil additives including foaming agents, polymers and bentonite to maintain face pressure, prevent clumping of clay cuttings and provide lubrication. Considering, the excavated material will likely be disposed of in the local area, the chemical composition of the additives should be provided for review by local officials to assess if the material is acceptable for re-use or to be treated as a contaminated material.
251	**Chapter 4.14 -Soils and Farmlands**		
252	230	Sec 4.14, pg. 4.14-1 through 7, Soils and Farmlands	The total agriculture Priority Preservation Area (PPA) (at the time of the certification application process in 2013-2014) was estimated at 85,588 acres, which includes Beltsville Agricultural Research Center (BARC) and the Patuxent Research Refuge (PRR). the County based it's 80% preservation goal on 75,033 acres (the PPA not including BARC and PRR). Therefore, calculations for state approval do not include those federal properties, but they are significant and included in the PPA. The thought is that BARC and PRR is preserved as an agricultural land use, any significant change requiring Congressional approval. The entire contribution to the PPA in Subregion 1 is BARC (mostly prime farmland) and PRR, approximately 11,000 acres in Prince George's County, and are significant rural, agriculture, and undeveloped lands. They encompass 19,000 acres of agricultural and natural resource lands including the part of PRR in Anne Arundel County. These areas were also designated as Special Conservation Areas in the Green Infrastructure Plan. Because they are not included in the Prince George's County PPA, the target protection goal does not diminish their importance overall.
253	231	Sec 4.14, pg. 4.14-2/3, Soils and Farmlands	The uniqueness of the soils in BARC should be acknowledged. The soils within the BARC property reflect the soil types within the Mid-Atlantic region and therefore make research of agricultural issues for farmers in the Mid-Atlantic Region more efficient and centralized
254	**Chapter 4.15 - Hazardous Material Sites and Solid Waste**		

	A	B	C
255	232	Sec 4.15.2.2, pg. 4.15-2-4, Methodology	The DEIS references a one mile search radius from a centerline estimated between the build alternatives to identify any hazardous waste sites. FRA then defined the SC Maglev "Projected Affected Environment" to consist of the LOD plus a 0.25 mile buffer extending outward. The sites identified within these areas were then evaluated for potential impacts from the SC Maglev and the associated human health and environmental impacts. They assigned a "Risk Ranking" to each of the sites which was adjusted based on distance from the site to the LOD. FRA identified and ranked more than 1,000 sites, most with a low risk. There were 32 sites with a risk of 3 or 4 and are associated with leaking underground storage tanks (LUST) and are primarily located in DC and Baltimore. Three sites had a listing score of 5: Fort Meade, BARC, and PRR. Specific sites in Prince George's County with listing scores of 4 include: Villages at Montpelier, Oak Hill Youth Center Therapy BLDG, Baltimore Tank Lines at Oak Hill Youth Service Center, Evergreen at Laurel Apts., Evergreens of Laurel, 3 Exxon stations in Laurel, and the 7 Secret Service buildings/facilities located in BARC. There is no mention of the Colmar Manor Community Park and that it was constructed on top of a sanitary landfill. The SC Maglev passes under the Park and (most likely) the landfill. From a construction and environmental perspective this needs to be further evaluated to ensure that the tunneling does not impact or compromise the integrity of the landfill which could cause significant groundwater contamination and other environmental issues at the Park. A discussion of this potential impact should be listed and discussed in the text as well as what mitigation could occur.
256	**Chapter 4.17/Appendix D.10 - Noise and Vibration**		
257	233	Sec 4.17 Noise and Vibration, General Comment	The Section on Nosie and Vibration seems particularly contradictory. Additionally, mitigation for these items is not addressed in the project cost estimates, nor does the DEIS elaborate on vibrations that will be felt on residential or other sensitive properties like schools. The DEIS should elaborate on the topic in more detail.
258	234	Page: 4.17-5 Section: 4.17 Noise and Vibration	Most of the buildings in the Greenbelt National Historic Landmark are frame structures. Vibration from the trains could cause structural damage to the buildings, as they could not absorb as much of the vibrational energy. What monitoring process will be implemented and for long will it be in place?
259	235	Page: 4.17-5 Section: 4.17 Noise and Vibration	The vibration study notes that heavier buildings (such as masonry structures) are less susceptible to vibration than wood-frame building buildings because they absorb more vibrational energy.

	A	B	C
260	236	Chapter 4.17 & Appendix D.10, general	Baseline noise monitoring information present is too vague. Additional explanation and detail should be provided to better understand receptor locations, and therefore expected noise effects.
261	237	Sec 4.17.4.2, pg. 4.17-12, 2nd paragraph	What is the basis for the statement that no noise impacts are predicted at speeds below 150 mph. This seems like an arbitrarily chosen number.
262	238	Appendix D.10, Sec D.10.2.2.3, pg. 10-12	The report states that "FRA modeled substations using a default FTA reference noise level of 63 dBA Lmax at 50 feet, a source height of 5 feet, and 100 percent utilization from 5:00 a.m. to 11:00 p.m." Based on this information there will be a permanent noise impact in the vicinity of the substations. According to Figure D.10-1, this will be roughly equivalent of standing next to an air conditioner. Furthermore, explain if the noise impact will cease between the hours of 11:00 PM and 5:00 AM.
263	239	Appendix D.10, Sec D.10.2.2.3, pg. 10-12	The report states that "FRA modeled the fresh air and emergency egress facilities using an estimated noise level of 62 dBA Lmax at 50 feet, a source height of 30 feet, and 100 percent utilization from 5:00 a.m. to 11:00 p.m." Based on this information there will be a permanent noise impact in vicinity of the fresh air and emergency egress facilities. According to Figure D.10-1, this will be roughly equivalent of being next to an air conditioner. Furthermore, explain if the fan plant contained in the FA/EE facility will cease between hours of 11:00 PM and 5:00 AM.
264	240	Appendix D.10, Sec D.10.2.2.3, pg. 10-12	The report states that noise effects at tunnel portals were not evaluated. However, Section D.10.4.2.1 states "FRA did not predict any noise impacts due to startle effects at tunnel portals since the portal design includes noise mitigation hoods to eliminate these effects." However, Appendix D.10.4.2.2 states that "A unique phenomenon occurs at the tunnel portals when the high-speed trains exit the tunnel onto the viaduct. The rapid release of air pressure is associated with a sudden onset of sound that can cause residents startle or surprise especially when they are not expecting it. Current project designs include flared tunnel openings and noise mitigation hoods to minimize these effects. Therefore, these noise effects are minimized compared to the aerodynamic noise effects of the train pass by." Please provide a definitive statement for the noise impact tunnel portals.
265	241	Appendix D.10, Sec D.10.2.2.3, pg. 10-12	The dBA values for a passing trainset were not provided. These would be very illustrative and would thus help the reader understand noise impacts.
266	242	Appendix D.10, Sec D.10.4.2.1, pg. 10-16	The report states that "FRA predicted noise impacts at residences and institutional receptors along the proposed Build Alternatives." Noise impacts within Prince George's County should be less than 65 dBA in accordance with local ordinance. Please clearly confirm whether the impacts will be in conformance with that standard or not.

	A	B	C
267	243	Appendix D.10, Sec D.10.4.2.1, pg. 10.4-17, last paragraph	The report states that "FRA also predicted vibration impacts at residences and one institutional receptor (the National Cryptologic Museum adjacent to the National Security Agency in Fort Meade, MD)." The magnitude of the vibration impact was not provided. These details should be provided.
268	244	Appendix D.10, Sec D.10.4.2.2, pg. 10.4-18, 3rd paragraph	The report states that "FRA predicted 'severe' noise impacts at residences in Maryland City from the viaduct under Build Alternatives J-01 but no impacts from the tunnel under Build Alternatives J1-01." Noise impacts within Prince George's County should be less than 65 dBA in accordance with local ordinance. Please confirm.
269	245	Appendix D.10, Sec D.10.4.2.2, pg. 10.4-20, 1st paragraph	The report states that "As shown in Table D.10-7, noise impacts were categorized into 'moderate' and 'severe' impact levels. Although both impact categories require mitigation consideration, it is the 'severe' category that has the greatest adverse impact in the community and would warrant incorporation of mitigation. The number of 'severe' noise impacts predicted for each Build Alternative generally follows the viaduct section due to the preponderance of the aerodynamic noise effects. In other words, the longer the viaduct section is for each Build Alternative, the higher the number of predicted 'severe' noise impacts." Therefore, noise mitigation should be provided at Sumner Grove Drive, Elmshorn Way and Hermosa Drive located in the Laurel area of Prince George's County. Noise impacts within Prince George's County should be less than 65 dBA in accordance with local ordinance.
270	**Chapter 4.18 - Electromagnetic Fields and Electromagnetic Interference (EMF/EMI)**		
271	246	Section 4.18: Electromagnetic Fields and Electromagnetic Interference (EMF/EMI)	Once the MAGLEV tract is above ground at full height, will the operation of the train and the associated equipment have a negative impact on the operation of the existing communications towers adjacent to the proposed alignments, since they will be at the same height. Is there any data on this?

	A	B	C
272	247	Sec 4.18.2.2, pg. 4.18-2, Methodology	FRA focused on identifying potentially sensitive receptors to EMF/EMI. The DEIS defined the SC Maglev project affected environment for EMF/EMI to be 500 feet from the LOD unless potential sensitive receptors (e.g., medical or institutional facilities) outside of this area expressed concerns. The concern is primarily with the above ground viaduct sections since underground the EMF/EMI has less of an impact. Above ground and beyond a distance of 500 feet, the EMF/EMI levels are below existing ambient levels. Sensitive receptors are defined as: Federal installations, universities/schools, medical institutions, high-tech businesses, airports, and local police and fire facilities. FRA indicated they did not conduct EMF/EMI calculations or simulations of the SC Maglev as part of the DEIS. However, there is testing described in Appendix G3 (see next comment) and this needs to be clarified.
273	248	Sec 4.18.4.2, pg. 4.18-4-6 Table 4.18-1	Table 4.18-1 lists the identified sensitive receptors and for Prince George's County this includes nine schools, BARC, Patuxent Wildlife Refuge, NASA, Bladensburg Community Center, and Rowley Training Center. The three schools that are within 500 feet of the viaduct are a concern and additional information is needed to ensure there are no impact to those schools, or to mitigate proposed impacts.
274	249	Sec 4.18.4.2, pg. 4.18-9 Table 4.18-3	Table 4.18-3 lists six potential issues related to increased EMF/EMI and describes mitigation strategies for each. This section discussed impacts to electronic equipment but did not mention any impacts to people from EMF/EMI. For example, persons who have a pace-maker are advised to be careful around sources of EMI since they could affect the proper functioning of the pace maker. The impact to people needs to be fully addressed.
275	250	Appendix G3	Appendix G3 contains a Electromagnetic Fields report done by Louis Berger. This report describes results of testing (pages 5, 6) and concludes that the test results showed all EMF levels would meet all International Commission of Non-Ionizing Radiation Protection (ICNIRP) field exposure guidelines as recommended by the World Health Organization. However, no background information as to how and where the tests were conducted (Japan?) is provided. Without such background reference information, the results cannot be verified and assumptions cannot be tested. This information should be provided.
276	**Chapter 4.19 - Energy**		

	A	B	C
277	251	Sec 4.19.2 & Sec 4.19.3.2 Affected Environment & Build Alternatives	Power to the SC Maglev would come from PEPCO and BGE and delivered via the PJM power grid. The DEIS includes comparisons of other forms of transportation using the parameter of "energy per passenger mile or Btu/seat-mile." To estimate the power usage for the SC Maglev, comparable trains from Japan, Germany, and France were used. The SC Maglev will increase net transportation energy consumption by 3.0 trillion Btus or the equivalent of providing power to 88,900 homes for one year, which is a significant amount for a single use. In 2020, the PJM had a total generation capacity of 197,485 MW. The power requirement for a single SC Maglev train during acceleration is 35 MW or 0.2% of PJM's capacity. The more critical constraint is the capacity of the current transmission infrastructure to handle the SC Maglev power demands. This is referred to as "congestion" and the Washington DC - Baltimore corridor is among the most congested in the PJM. In order to adequately know if the PJM can meet their demands, the "project sponsor" would apply through PJM for long-term transmission service which will initiate a Transmission Feasibility Study (TFS). PJM then uses models to determine if they can accommodate the request. If their analysis indicates that service cannot be provided with the existing grid infrastructure, they initiate a System Impact Study (SIS) and Facilities Studies. The SIS identifies what upgrades would be needed to meet their request. The ability of the PJM to provide the needed power and the associated infrastructure upgrade costs should have been established as part of the DEIS to allow determination of the feasibility of the SC Maglev.
278	252	Sec 4.19.3.3, pg. 4.19-14-15, Short-Term Construction Impacts	Why are the additional substations described in Chapter 3, Section 3.3.2.6 not discussed in this section? The other power impact is from temporary construction demands. The project will use and estimated 8 to 9 tunnel boring machines (TBMs) during construction, each requiring approximately 14 MW of power. That is a huge amount of power for each TBM and it will most likely be provided using diesel-powered generators. That would require using the largest Caterpillar diesel generator that is commercially available at each location and/or using multiple smaller units. To put it in perspective, a Caterpillar unit (Model CM43C V-Type) rated for 11-15 MW is 54-feet-long, 14-feet-wide and weighs 315 tons. How can generators of this size be transported and installed at the staging areas? The diesel generators also produce a significant amount of emissions in a part of Maryland that also has some of the worst air quality. The use of generators to power the TBMs does not seem feasible and we need further explanation of how it can be accomplished.
279	**Chapter 4.20 - Utilities**		

	A	B	C
280	253	Sec 4.20.4.2, pg. 4.20-2-3, Build Alternatives	Regarding the capability of the power grid to handle the load from the SC Maglev, this paragraph states that the impact to the physical infrastructure due to potential power transmission congestion will not be fully known until the Project Sponsor applies for a long-term service through the PJM. See previous comments for Section 4.19. This information should be known sooner so the EIS can account for it.
281	254	Sec 4.20.4.2, pg. 4.20-2-3, Build Alternatives	They indicate that the DC Water Combined Sewer System (CSO) Northeast Boundary Tunnel crosses New York Avenue south of Montana Avenue NE at a depth of 90 feet and that the SC Maglev tunnel will go under the CSO tunnel. Drawing PP-42 shows the SC Maglev tunnel to be approximately 160 feet below ground at that location. There is also a Fresh Air Shaft near that location. The drawing(s) need to show the CSO tunnel on the profile view to verify sufficient clearance between the two tunnels.
282	255	Sec 4.20.4.3, pg. 4.20-3-4, Short-Term Construction Effects	The DEIS states there could be impacts to utilities at the transition portals, switching locations, underground stations, and the TBM launch/retrieval sites. Precautionary actions should be taken by all impacted utility owners (e.g., WSSC) to TV inspect large sewer lines and perform leak detection of water lines to document preconstruction conditions. Monitoring wells should also be installed to establish water levels in the aquifers where there are drinking water wells. The Prince George's County (and WSSC) Water and Sewer Master Plan may need to be amended to show the new service areas for the various SC Maglev facilities. Even though the water demand and sanitary flows should be low, is there sufficient capacity in the existing water and sewer system to accept the flows? It is essential that proper fire protection requirements be met all along the SC Maglev main line and at all proposed building and facilities. Is there sufficient flow and pressure at all locations to meet the necessary requirements? The federal facilities (i.e., BARC, PRR, etc.) may have their own utility systems which need to be listed in Table 4.20-1. The DEIS should list what entities (e.g., WSSC, etc.) will be providing service to the SC Maglev mainline sections and at each of the proposed facilities.
283	**Chapter 4.21 - Public Health and Safety**		

	A	B	C
284	256	Sec 4.21.2.2, pg. 4.21-1-2, Methodology	The FRA would implement measures to avoid, minimize, and mitigate potential risks to public health and safety such as: Water Resources - try to minimize dewatering during construction and have dialog with water utilities regarding impacts to water lines; Hazardous Materials and Solid Waste - implement proper management plans during construction, conduct environmental site assessments, mitigation to include removal of contaminated materials, and proper storage of hazardous materials; Air Quality - they would implement measures such as dust control, idling restrictions, using clean fuel, and best available tailpipe reduction technologies; Geology - they would implement proper procedures for handling asbestos and radon gas; Noise and Vibration - they propose use of sound attenuation hoods or shrouds, sound attenuation walls, and augmented parapet walls; EMF/EMI - this consists of primarily monitoring the integrity of the installed grounding system (e.g., metal fencing); Public Safety - they propose developing and implementing a Public Safety Plan for the construction phase. The FRA needs to certify that they will implement all such measures and others as needed when conditions and circumstances dictate to ensure full protection of the public.
285	**Chapter 4.22 - System Safety and Security**		
286	257	Sec 4.22.2, pg. 4.22-1-3, Regulatory Context	This section lists various applicable State and Federal safety regulations and associated jurisdictions. Since the SC Maglev will be owned and operated by a private entity, that puts responsibility on Prince George's County to respond to emergencies. Accidents could happen at locations along the main line with recovery actions taking place at the FA/EEs, portals, viaducts, or the TMFs. This section and others in this Chapter need to reference the County's potential responsibilities and list their applicable regulations, Emergency Preparedness Plans, etc. Also commitments should be made to the County that any special equipment, training, planning or other resources needed by County agencies will be provided by the project sponsors to service these facilities.
287	258	Sec 4.22.3.3, pg. 4-22-7-9, Crime and Terrorism	The DEIS indicates there have been 20 terrorism events that have occurred in Maryland and DC between 2000 and 2017 with the majority targeting government properties or officials. Specific incidents at public transit facilities are described. Domestic terrorism is a very real threat and the high visibility of the SC Maglev could make it especially vulnerable. This section needs to be updated to list events that have happened in the last few years. The threat of terrorism, especially in the DC Metro Area must be emphasized along with the implementation of proper security measures at all SC Maglev locations.
288	**Chapter 5: Public Involvement and**		

	A	B	C
289	259	Sec 5.3, pg. 5-3 thru 5-22 Public Outreach	Public meetings between 2016 and 2018 are listed for the jurisdictions that have stations. Prince George's County has significant impacts from proposed TMFs and other maintenance facilities that were added after the last of the public meetings were held. Businesses and residences are proposed to be taken and neighborhoods will have direct impacts from these facilities. No meetings were or have been scheduled in the county to educate and gather input from County residents. This seems ill advised.
290	260	Pages: 5-3 thru 5-22 Section:5.3 Public Outreach	What kind of Environmental Justice outreach was conducted in Prince George's County to engage the impacted residents since the release of this DEIS? With many to the public access facilities unavailable for use (i.e. libraries for computers, Wi-Fi, printed copy review) many may not have access for the review of the document. How will the impacted communities be directly engaged as the project progresses?
291	**Appendices**		
292	261	Appendix C - Alternatives Development, Section C.3.6, pg. C-35	It is indicated that overhead electric power lines will be installed from existing power lines to SC Maglev systems substations and from the substations to each of the SC Maglev facilities. The overhead lines will be supported on towers or monopole structures similar to regional overhead power systems and the lines from the substations to the facilities would be on utility poles similar to those in public transportation ROWs or may be attached to or incorporated within SC Maglev structures, such as the viaduct. This description is too general for the purposes meant to be achieved with the DEIS. The location and configuration of all buried and overhead lines is needed in order to assess the impacts, the ROW needs, costs, and other factors. Will the substations and power lines be owned by a utility or by SC Maglev? Why are the lines proposed to be above-ground as opposed to buried?
293	262	Appendix C.3.5, pg. C-33, general	The document indicates that FA/EE site will also serve as launch sites for the tunnel boring machines (TBM). The limit of disturbance for the launch sites should be provided in Appendix G.7.

	A	B	C
294	263	Appendix G, Parts F,G,H, general	These drawings provide the location for only portions of the SC Maglev power supply system. For J and J1 Alignments, they show underground electric (E) going to the DC Station at STA 101+100 from STA 101+850 where it connects to an existing PEPCO substation (with potential expansion noted). It then travels underground following the tunnel alignment to STA 104+100 (New York Avenue & Montana Avenue) going to the FA/EE facility-TBM Launch Site. Then for J Alignment no power lines are shown from that location all the way to STA 121+900. At this location, overhead power lines (OE) are shown along Powder Mill Road, where one line goes west to the TMF Option 1 and one goes east to the TMF Option 2. The two TMF lines are fed from an OE line that runs alongside the SC Maglev viaduct from the System Building at 122+000, the System at STA 122+900, the System at STA 123+600, and the System at STA 124+200. At STA 124+300 the OE diverts away from viaduct to follow alongside the BPW exit ramp to Route 197 to an Interconnection Switchyard adjacent to existing high voltage transmission lines. For the J1 Alignment, OE is shown to start at STA 122+000 and goes to the Interconnection Switchyard at STA 123+800. Much more detail is needed to describe the location where power lines will be installed, whether they are underground or aboveground, and what is the height and width of the aboveground OE towers. Is property acquisition or ROW needed?
295	264	Appendix G, Part K, Appendix G.7, Construction Planning, general	Provide a process for classification of existing structures and utilities within the influence zone of the construction work to evaluate potential for damage as a result of the work.
296	265	Appendix G, Part K, Appendix G.7, Construction Planning, general	Provide details of the process for pre construction and post construction condition survey of existing structures within the influence zone of the construction work according to ASCE 11-99, Guidelines for Structural Condition Assessment of Existing Buildings.
297	266	Appendix G, Part K, Appendix G.7, Construction Planning, general	Provide process for pre construction and post construction condition survey of existing pipelines within the influence zone of the construction work according to *Pipeline Assessment Certification Program (PACP) Manual* (2010).
298	267	Appendix G, Part K, Appendix G.7, Construction Planning, general	Provide process for detailed analysis and mitigation measures for existing structures and utilities within the influence zone of the construction work for any sensitive structures or utilities using engineering methods appropriate for similar work.

	A	B	C
299	268	Appendix G, Part K, Appendix G.7, Construction Planning, general	Provide a statement that requirements for National Park Service Standards for Preservation and Guidelines For Preserving Historic Buildings will be adhered to for historic structures within the influence zone of the construction work.
300	269	Appendix G, Part K, Appendix G.7, Construction Planning, general	Please indicate the minimum depth of soil cover required for tunneling under the Anacostia River to prevent a blowout and release of fluid at the tunnel face into the river. Provide details if any mitigation measures are proposed.
301	270	Appendix G, Part K, Appendix G.7, Sec 6.5 pg. 20	The document states that "*Soils will not be dewatered and will require testing prior to disposal according to State environmental guidelines and requirements.* " Provide information about possible environmental contamination in the muck and methods for disposal in the event the material does not meet local regulations. Considering that additives will be used during the tunnelling process and the tunneling will generate between about 11 to 15 million cubic yards of muck for disposal, early coordination should be conducted with local environmental agencies to ensure the material is properly handled and disposed.
302	271	Appendix G, Part K, Appendix G.7, Sec 7.4, pg. 25 & Appendix G.4, Sec 6 pg. 7	The document states "Topsoil/organic material will be stripped and removed prior to construction and disposed offsite. The excavated subsoil from the viaduct foundation can be partially reused within the right of way for grading. The ground within the ROW will need to be stabilized and compacted for the construction equipment and drill rigs to be transported to each substructure unit." Additionally, the document states "A 6 meter (20 foot) wide access way will be provided under the viaduct within the right-of-way to access viaduct structures and facilities." The document states that the length of viaduct is approximate 14.2 km. Therefore, mitigation should be provided for the permanent surface disturbance for the right-of-way access for the viaduct. Additionally, the loss of the topsoil resource should be discussed in Chapter 4.14 of the report [Soils and Farmland].

	A	B	C
303	272	Appendix G, Part K, Appendix G.7, Sec 14, pg. 50	The report states "the material can potentially be useful as daily cover for local landfills (e.g. Millersville Landfill, Baltimore City Dump, PG County Waste Management) and/or fill for local or future projects (e.g. Sparrow's Point redevelopment, BWI Airport)." Considering a total volume of spoils of up to 28 million cubic yards, it is unlikely that daily landfill cover can contribute significantly since the volume of spoils is larger than several landfills combined. For conceptualization, a volume of spoil of 28 million cubic yards would equate to approximately a rectangular mass of soil 200 feet high and 2000 feet long on each side. Considering, landfill space is nearly expended in the local area, a more comprehensive plan for disposal of the spoils should be provided. Long distance trucking of the material should be avoided to minimize emissions from about 2.3 million dump truck loads. Furthermore, the damage to local pavements due to 2.3 million dump truck loads should be discussed as an impact.
304	273	Appendix G, Part K, Appendix G.7, Sec 5.4, pg. 5	Typical threshold values for vibration and noise should be provided that would result in a stoppage of the construction work.
305	274	Appendix G, Part K, Appendix G.7, general	A process for handling and mitigating complaints from local residents related to noise, traffic, shining lights, garbage, dust, etc. during construction was not provided. Due to the magnitude of the project, complaints from residents in vicinity of the project should be expected.
306	275	Appendix G, Part K, G9 - Cost Estimates	For J Alignment: Category 30 - Support Facilities - Line 30.030 and Line 30.060 - This states that equipment costs are included in Code 50, but Code 50 does not show any costs. Line 30.060 - Elec. Substations - this only lists costs for 4 substations but DEIS Section 3.3.2.6 states there are a total of 7 (2 TMF and 5 along the mainline). The cost should be for 7 substations. The following categories have no costs shown: Line 40.040 - Envir. Mitigation, Category 50 - Systems, Category 60 - ROW and Land Acquisition, Category 70 - Vehicles, Category 80 - Professional Services, Category 90 - Contingency. All of these categories will have costs that need to be shown and included as part of the total project cost. J1 Alignment: Same comments except costs are listed for Line 40.040 Envir. Mitigation at $46,059,000, while no costs are listed for Line 40.050.
307	276	Appendix G, Parts A & B (Attachments 1 & 2), general	The lists of impacted properties for each alignment should include any property within the influence zone where the ground has the potential to experience movements as a result of the construction work, and locations where noise and vibration impacts will occur as a result of the operational system.

	A	B	C
308	277	Appendix G, Part A & Part B	The maps showing the various alignments are not oriented for easy understanding. Specifically, the maps are backwards such that north end of each map sheet does not align with the north end of each succeeding map sheet in the pdf document. This problem is easily fixed by reversing the order of the map sheets.
309	**General**		
310	278	General	The projected life span of the tunnel sections was not addressed.
311	279	General	For the viaduct, the life span of reinforced concrete should be provided. If de-icing agents will be used, the life span span should consider appropriate corrosion mechanisms.
312	280	General	In the event water or soil infiltration into the tunnel occurs during the life of the system, the methods used to address the problem should be discussed. The discussion should explain if the repairs would be conducted from the ground surface or from within the tunnel and what if any disruption to the public would be expected.
313	281	General	Revise the alignment for the viaduct section so that the viaduct is located in the middle of the Baltimore-Washington Parkway (similar to the WMATA Silver Line along the Dulles Toll Road). This will reduce noise impacts to residential neighborhoods along the viaduct.
314	282	Sec App. D1, pg. D.1-3 Permits and Authorizations	SCMagLev will need easements and/or transfer of parkland from MNCPPC. Md. Land Use Art. 17-206 requires MNCPPC to make a finding that parkland is not needed and any exchange of land shall be equal or better to that which was disposed of.
315	283	Sec App. D1, pg. D.1-3 Permits and Authorizations	ROE permit from MNCPPC for temporary and/or permanent access to MNCPPC property for construction activity on MNCPPC parkland will be required.
316	284		The developer needs to submit to Prince George's County Fire/EMS Department a safety and emergency response proposal that incorporates the latest safety and rescue features from similar systems. Ongoing coordination will be needed to develop a fully formed program for training first responders and provide any required equipment unique to the Maglev environment.
317	285		The Federal Bureau of Engraving is considering locating a new facility on the BARC property adjacent to Odell Road. This would involve another 24-hour, industrial use with a large number of employees, truck traffic, noise and activity along a 2-lane road, adjacent to a historic African American residential community. This should be evaluated carefully to avoid an overconcentration of these types of industrial facilities in this area. Efforts need to made to avoid, minimize and mitigate these impacts.

	A	B	C
318	286	Sec App D.2, pg. A-2 Transportation	16 trains/hr. passing through areas (8/direction) = every 3-4 mins from 5AM to 11PM With the constant operation of the train, what impact does this have on residents that live near the viaduct? How will these impacts be avoided, minimized and/or mitigated?
319	287	Sec App D.2, pg. A 10.4 Transportation	Required roadway realignments on Prince George's County roads proposed to be constructed by the project sponsor must be coordinated with the Department of Public works and Transportation and the Department of Permit Inspection and Enforcement.
320	288	Sec App D.2, pg. 65 Transportation	"At the height of construction activity there will be 560 to 690 daily truck departures/arrivals at this work site, which will be active 24 hours per day. In addition, there will be an estimated 425 autos carrying workers arriving and departing over the 24-hour period." These severe impacts in residential areas over five to seven years is unacceptable. The minimization of impacts on the community via the proposed mitigation efforts as set forth in the DEIS appears woefully inadequate considering the nature and length of these "temporary impacts". Options to avoid, minimize and mitigate these impacts must be explored and discussed.
321	289	Sec App D.10 – Noise and Vibration pg.: 10-12	Maintenance facilities will operate at 82dBA which is equivalent to the noise level of a jackhammer, per Figure D.10-1. The trains will be serviced overnight, from 11pm-5am. So, noise equivalent to jackhammers will be operational overnight, every night. This is far in excess of the noise allowed by County Code, and far in excess of COMAR regulations. What does the project sponsor propose to avoid, minimize and mitigate these unacceptable noise levels?
322	290	**Coordination with the Managed Lanes Study Area (MLS)**	• The Maglev alignment appears to overlap at one park on the MLS project at Good Luck Estates Park. The alignments are Alt J-1 (MD 198, Cherry Hill) and Alt J1-01 (MD 198, Cherry Hill). 1. The boundary mapping for Good Luck Estates Park appears to be incorrect on the Maglev Online Mapping Tool. Good Luck Estates Park boundary extends to Good Luck Road 2. Alt J-1 directly bisects the park 3. Alt J1-01 is a short distance to the west (25ft? -needs accurate measurement) and could potentially have impacts to the park depending on the work proposed 4. Both alternatives cross through the LOD of the MLS
323	291		Impacts at Beaver Dam Road - significantly overlaps an alignment of the proposed MLS project
324	292		Impacts at Powder Mill Road - significantly overlaps an alignment of the proposed MLS project

	A	B	C
325	293		Impacts to Springfield Road Park Alt J1-01 and Alt J1-02 - this location fully overlaps the MLS alignment
326	294		DEIS Section 4.23.4.1. - Transportation - inadequately addresses the cumulative impacts of this large transportation project. Please provide detailed analysis of the cumulative transportation impacts to local roads, facilities, and parks as a result of both the Baltimore Washington Superconducting Maglev Project and the I-495/I-270 Managed Lanes Project being constructed within similar timeframes.
327	295		Request that the GIS layers for the alignments for both the Baltimore Washington Superconducting Maglev Project and the I-495/I-270 Managed Lanes Project be made available as a layer on each project's Online Mapping Tool.
328	296		Please provide a copy of the 2018 draft, final and supplemental Baltimore-Washington SCMAGLEV Project Ridership reports
329	297		The cost estimates provided in the DEIS are inadequate as they lack detail and omit information related to right-of-way acquisition and mitigation efforts to name a few.
330	298		The DEIS is missing a meaningful analysis about Amtrak - will add more post conversation.
331	299		With the ultimate goal of this project going to New York, this NEPA analysis is incomplete as it is not a true measure of the whole project and presents a segmented project.
332	**Review of Draft Report: Phase IA Documentary Study and Archaeological Assessment for the Baltimore-Washington Superconducting Maglev Project. Prince George's County, Anne Arundel County, Baltimore County, and Baltimore City.**		

	A	B	C
333	296	Page: 5-1 to 5-6 Section 5	1) Bladensburg FA/EE (fresh air and emergency egress) and TBM (tunnel boring machine) Launch (3.06 acres). The area of disturbance proposed includes 3.06 acres, which lies within most of the parking lot of the WSSC building. The facility would be situated between the existing WSSC building and the existing CSX rail line. No archeological investigations have taken place and no archeological sites have been identified within the proposed facility APE. The consultant's assessment of the site notes that while no known historic development has been documented on the property, proximity to early settlement and known sites suggests the APE has moderate sensitivity for historic resources. Modern modifications to the landscape have reduced the potential for significant sites with integrity in shallow deposits. However, due to the location on a terrace near the confluence of the Anacostia River and Quincy Run, there is potential for deeply buried potentially significant archeological deposits. The consultant archeologists recommend a Phase I archeological survey be conducted, as possible, to identify archeological sites and evaluate them for National Register of Historic Places (NRHP) eligibility. It is noted that depending on accessibility and project scheduling, work may need to be conducted concurrently with demolition and construction activities according to the precepts of future applicable agreement documents (e.g., a project Programmatic Agreement [PA]).
334	297		We concur that there is potential for deeply buried potentially significant archeological deposits within the limits of disturbance and that due to the nature of the current uses on the site by WSSC, Phase I archeology investigations may not be practical until the time of demolition and construction activities. Investigations should be conducted according to the precepts of the approved Programmatic Agreement.

	A	B	C
335	298	Page: 5-6 to 5-10 Section 5	**2) Riverdale FA/EE and TBM Launch (16.71 acres)** Separate FA/EEs and TBM launch configurations are proposed for the J and J1 alternatives in the vicinity of Riverdale, Maryland. The two alternatives are adjacent to each other on the north side of Veterans Parkway, MD 410. The APE also includes laydown areas and access roads. Together the assessed area is approximately 17 acres. The construction of the TBM would involve open-cut digging to the designated depth of the proposed SCMAGLEV deep tunnel and construction of FA/EE facilities, road, and laydown areas at the surface. The proposed Riverdale facilities APE is within a wooded stream valley along MD 410. While much of the APE has low archeological sensitivity due to slope in excess of 15 percent, the northeastern portion of the APE includes fewer sloped ridges with moderate potential for ephemeral prehistoric camps or resource procurement sites. There is low sensitivity for historic sites. A Phase I archeological survey is recommended within moderate potential areas to identify archeological sites and evaluate them for NRHP eligibility status. Low potential areas are recommended for pedestrian survey, supplemented with judgmental shovel test pits as appropriate, and to be covered under an Unanticipated Discoveries Plan. Work may need to be conducted concurrently with demolition and construction activities according to the precepts of future applicable agreement documents (e.g., a project PA).
336	299		We concur that there is potential for deeply buried significant archeological deposits within the limits of disturbance. We agree with the identification of moderate potential areas and recommendation that low potential areas be subject to pedestrian survey and the excavation of judgmental STPs. However, we recommend that the Phase I archeological survey be conducted prior to the FEIS to determine the extent and the preservation of any significant deposits that may be affected by the undertaking. We also concur that the property should be covered by an Unanticipated Discoveries Plan.

	A	B	C
337	300	Page: 5-10 to 5-14 Section 5	**3) Landover Laydown (62.13 acres)** A 62-acre long-term or possibly permanent laydown area is proposed on the north side of Landover Road at its intersection with I-495. This area is proposed to be used as a staging area for both Alternatives J and J1, resulting in potential surface disturbance. This site is the former location of the Landover Mall, constructed in 1972 and demolished in 2006. The site now comprises a large, paved lot surrounding a dirt-covered area representing the former mall footprint. Due to the extensive modern disturbance from construction of the mall in the early 1970s, the site was found to have low to no potential for containing significant archeological sites. No archeological investigations are recommended by the archeological consultant on this site, but the property should be covered by an Unanticipated Discoveries Plan.
338	301		We concur that there is low to no potential for this area to contain significant archeological resources and that no archeological investigations are necessary. However, the property should be covered by an Unanticipated Discoveries Plan.
339	302	Page: 5-14 to 5-20 Section 5	**4) Beltsville East Support Facilities (45.84 acres)** A variety of facilities are proposed in Beltsville on the east side of the BWP along Alternative J. These facilities would support options that include the BARC Airstrip and West TMFs. This includes stormwater management facilities, tunnel laydown, tunnel portal locations, and TBM launch locations. The area is somewhat rectangular and parallel to the BWP. The area stretches from an apartment complex south of Explorer Road on the south to 770 feet south of Beaver Dam Road on the north. The area includes approximately 46 acres, most of which falls within the USDA BARC property. Stormwater facility construction would involve excavation from the surface to the depth of the desired basin. Tunnel laydown would require surface disturbance, while TBM launch and portal locations would extend from the surface to the depth of the tunnel. The consultant estimates that approximately 25 percent of the area has moderate potential of containing prehistoric and historic archeological resources. A Phase I archeological survey is recommended on the moderate to high potential areas to identify any prehistoric and historic resources. Low potential areas are recommended for pedestrian survey, supplemented with judgmental STPs as appropriate, to be covered under an Unanticipated Discoveries Plan.

	A	B	C
340	303		We concur with the identification of moderate potential areas that may contain significant archeological deposits within the limits of disturbance and that low probability areas should be subject to pedestrian survey and judgmental STPs. However, we recommend that the Phase I archeological survey be conducted prior to the FEIS to determine the extent and the preservation of any significant deposits that may be affected by the undertaking. The property should be covered by an Unanticipated Discoveries Plan.
341	304	Page: 5-20 to 5-23 Section 5	**5) Beltsville West Support Facilities (65.35 acres)** A variety of facilities are proposed in Beltsville on the west side of the BWP along Alternative J1. These facilities would support options that include the BARC Airstrip and West TMFs. The group includes stormwater management facilities, tunnel laydown, tunnel portal locations, and TBM launch locations. The area of disturbance is somewhat rectangular and parallel to the BWP. The area stretches from the vicinity of the Hamilton Family Cemetery (PG:67-004-03c) in Greenbelt north for approximately 1.29 miles to Beaverdam Creek on the USDA BARC property and includes approximately 65 acres. Stormwater facility construction would involve excavation from the surface to the depth of the desired basin. Tunnel laydown would require surface disturbance, while TBM launch and portal locations would extend from the surface to the depth of the tunnel. A Phase I subsurface archeological survey of moderate to high potential portions of the facility APE is recommended to identify new archeological sites and evaluate them for NRHP eligibility. Low potential areas are recommended for pedestrian survey, supplemented by judgmental STPs as appropriate, and to be covered under an Unanticipated Discoveries Plan. Work may need to be conducted concurrently with demolition and construction activities according to the precepts of future applicable agreement documents.
342	305		We concur the identification of high and moderate potential areas that may contain significant archeological deposits within the limits of disturbance and that low probability areas should be subject to pedestrian survey and judgmental STPs. However, we recommend that the Phase I archeological survey be conducted prior to FEIS to determine the extent and the preservation of any significant deposits that may be affected by the undertaking. The property should be covered by an Unanticipated Discoveries Plan.

	A	B	C
343	306	Page: 5-23 to 5-30 Section 5	**6) BARC Airstrip TMF (trainset maintenance facility), MOW (maintenance of way), and Access (233.21 acres)** The proposed BARC Airstrip TMF and associated facilities would be located on the BARC property crossing Springfield Road and the former Beltsville airport east of the BWP. The TMF facility would include buildings, guideways, paved parking lots, MOW facilities, substations, roads, and utilities. The associated elevated connection tracks would run parallel to the BWP and cross over Beaver Dam Road before turning east to meet the MOW and TMF. A new powerline would run from the proposed substations at the TMF along Springfield and Powder Mill roads. The construction of the TMF would involve excavation and grading. The proposed BARC Airstrip TMF and associated facilities cover an area of about 233 acres. The BARC Airstrip is proposed for various options on Alternatives J and J1. One archeological site, 18PR84, has been recorded within the access tracks to the BARC Airstrip TMF APE along Beaver Dam Road. This prehistoric site was identified to the Maryland Historical Trust by Dennis Webb, a local collector, in 1972. The site contained lithic debitage and ground stone tools, but no formal survey was conducted on the site.
344	307		The Pleasant Grove Methodist Church Site and Cemetery (PG:64-016) is located near the southern end of the limits of disturbance on Springfield Road. Historic Preservation staff has completed a draft MIHP form for the site. This information should be added to the report. Efforts should be made to determine if any burials associated with this cemetery may be impacted by proposed construction. The maps provided in the report are not detailed enough to determine if there will be any adverse effect to this church and cemetery site. No archeological investigations have been conducted on this site to determine the extent of the burials. Many of the graves are unmarked or are marked with local field stones or yucca plants. A Phase I subsurface archeological survey of moderate to high potential portions of the facility APE is recommended to identify previously recorded and new archeological sites and evaluate them, if possible, for NRHP eligibility status. Low potential areas are recommended for pedestrian survey potentially supplemented with judgmental STPs. Work may need to be conducted concurrent with demolition and construction activities according to the precepts of future applicable documents.

	A	B	C
345	308		We concur that Phase I archeology survey should be conducted on the portions of the BARC Airstrip, TMF, MOW, and Access area identified to have moderate to high potential for containing archeological sites. However, we do not concur that the Phase I identification survey should occur after a Programmatic Agreement is signed or concurrent with demolition and construction. Phase I survey should be completed prior to signing a Programmatic Agreement and prior to the FEIS. Historic Preservation staff has completed a draft MIHP form for the Pleasant Grove Church and Cemetery Site. This information could be added to the final archeology report. No subsurface archeological investigations have been conducted to delineate the extent of the church site and burial ground. Based on experience with other burial grounds of this type in the county, there is always the possibility of graves located outside of the core of the burial ground. A sufficient area should be investigated outside of what is believed to be the extent of the graveyard to ensure that all burials are identified. The property should be covered by an Unanticipated Discoveries Plan.
346	309		**7) BARC West TMF, MOW, and Access (227.74 acres)** The proposed BARC West TMF and associated facilities would be located on the BARC property between Powder Mill and Odell roads west of the BWP. A small laydown area is proposed south of Powder Mill Road. The TMF facility would include buildings, guideways, paved parking lots, MOW facilities, and substations. The associated elevated connection tracks would run parallel to the BWP and along Powder Mill Road. The construction of the TMF and associated facilities would involve excavation and grading. The proposed BARC west TMF and facilities cover an area of about 228 acres and are included in alternatives J and J1. Two previously recorded prehistoric archeological sites, 18PR83, the Beaverdam Creek Site, and 18PR84, the Beck Site, extend into the access track area of the BARC West TMF. The sites were reported by local collector Dennis Webb in 1972 and were described as having lithic debitage and ground stone tools. These sites have not been evaluated for the NRHP.

	A	B	C
347	310	Page: 5-30 to 5-37 Section 5	Six archeological surveys have been conducted within portions of the APE. Most of these investigations did not include comprehensive systematic testing. The surveys that did include systematic testing only covered small linear portions of the APE. Due to the limited nature of the previous surveys, resurvey is recommended. A Phase I subsurface archeological survey of moderate to high potential portions of the facility APE is recommended to identify previously recorded sites 18PR83 and 18PR84, and new archeological sites and evaluate them, if possible, for NRHP eligibility status. Low potential areas are recommended for pedestrian survey, supplemented with judgmental STPs as appropriate, and to be covered under an Unanticipated Discoveries Plan. Work may need to be conducted concurrent with demolition and construction activities according to the precepts of future applicable agreement documents.
348	311		We concur that Phase I archeology survey should be conducted on the portions of the BARC West TMF, MOW, and Access area identified to have moderate to high potential for containing archeological sites. We also agree that efforts should be made to relocate sites 18PR83 and 18PR84 to determine if their full extent was recorded. However, staff does not concur that the Phase I identification survey should occur after a Programmatic Agreement is signed or concurrent with demolition and construction. A Phase I survey should be completed prior to signing a Programmatic Agreement, and prior to the FEIS. We agree that the property should be covered by an Unanticipated Discoveries Plan. The northern portion of the TMF area is near the site of the Edward T. Gross House (PG:62-016), a Prince George's County Historic Site. A small African American community was established in this area in the late 19th to early 20th centuries. Many of the residents were small farmers or were employed in the Muirkirk Iron Furnace to the west. Although the Gross House was demolished and a Phase I archeology survey did not identify significant archeological resources on the property, the history of the Gross family is significant and should be acknowledged through interpretive measures.

	A	B	C
349	312		**8) Laurel West MOW (12.27 acres)** The Laurel West MOW is proposed on Alternative J1 north of where Springfield Road diverges from the BWP. The proposed surface facility will require relocation of a portion of Springfield Road. The facility APE is approximately 12 acres. One archeological site, 18PR209, has been previously identified within the proposed road rerouting south of the MOW APE and southwest of Springfield Road. This prehistoric lithic scatter was recorded in 1983 during a Phase I survey for a proposed Intercounty Connector alignment. No surveys have taken place within the facility APE. A Phase I subsurface archeological survey of moderate to high potential portions of the facility APE is recommended to identify new archeological sites and evaluate them, if possible, for NRHP eligibility status. Low potential areas are recommended for pedestrian survey, supplemented with judgmental STPs as appropriate, and to be covered under an Unanticipated Discoveries Plan. Work may need to be conducted concurrent with demolition and construction activities according to the precepts of future applicable agreement documents.
350	313	Page: 5-38 to 5-40 Section 5	We concur that Phase I archeology survey should be conducted on the portions of the BARC Airstrip, TMF, MOW, and Access area identified to have moderate to high potential for containing archeological sites. However, we do not concur that the Phase I identification survey should occur after a Programmatic Agreement is signed or concurrent with demolition and construction. Phase I survey should be completed prior to signing a Programmatic Agreement, and prior to the FEIS. We agree that the property should be covered by an Unanticipated Discoveries Plan.

	A	B	C
351	314		**9) Laurel East Substation and MOW (47.45 acres)** The Laurel East MOW is proposed along Alternative J on the east side of the BWP. The substation will be located approximately 2,600 feet to the north of the MOW, at the intersection of Laurel Bowie Road with the BWP. An access road is proposed from Beaver Creek Trail to the MOW. These facilities total approximately 47 acres and would be built at the surface. The MOW would include buildings for storing and maintaining equipment such as trucks and tools. No archeological sites have been identified within the proposed facility's APE, and no surveys have been conducted within the boundaries. A Phase I subsurface archeological survey of moderate to high potential areas is recommended to identify new archeological sites and evaluate them, if possible, for NRHP eligibility status. Low potential areas are recommended for pedestrian survey, supplemented with judgmental STPs as appropriate, and to be covered under an Unanticipated Discoveries Plan. Work may need to be conducted concurrent with demolition and construction activities according to applicable agreement documents.
352	315	Page: 5-41 to 5-44 Section 5	We concur that Phase I archeology survey should be conducted on the portions of the Laurel East MOW and Substation area identified to have moderate to high potential for containing archeological sites. However, staff does not concur that the Phase I identification survey should occur after a Programmatic Agreement is signed or concurrent with demolition and construction. Phase I survey should be completed prior to signing a Programmatic Agreement, and prior to the FEIS. We concur that the property should be covered by an Unanticipated Discoveries Plan.

	A	B	C
353	316		10) Konterra Town Center Laydown (349.9 acres) An approximately 350-acre long-term or possibly permanent laydown area is proposed in Beltsville, on the north side of the ICC, to the east of I-95, and west and south of Konterra Drive. The area would be used for staging for both Alternative J and J1, resulting in potential surface disturbance. The property was the designated location for the proposed Konterra Town Center East, and the land includes large grassy fields, small, paved roads, and man-made ponds. No archeological sites or above-ground resources have been identified within the proposed laydown area, and no surveys have been conducted on the property. A Phase I subsurface archeological survey of moderate to high potential portions of the facility APE is recommended to identify new archeological sites and evaluate them, if possible, for NRHP eligibility status. Low potential areas are recommended for pedestrian survey, supplemented with judgmental STPs as appropriate, and to be covered under an Unanticipated Discoveries Plan. Work may need to be conducted concurrently with demolition and construction activities according to applicable agreement documents.
354	317	Page: 5-44 to 5-49 Section 5	We concur that Phase I archeology survey should be conducted on the portions of the Konterra Town Center Laydown identified to have moderate to high potential for containing archeological sites. However, we do not concur that the Phase I identification survey should occur after a Programmatic Agreement is signed or concurrent with demolition and construction. Phase I survey should be completed prior to signing a Programmatic Agreement, and prior to the FEIS. We agree that the property should be covered by an Unanticipated Discoveries Plan.
355	318		Other sources that the project sponsors should review include the 1894 Griffith W. Hopkins Map of the Vicinity of Washington, D.C. This map is available on the Library of Congress website at: https://www.loc.gov/item/88693364/. Also available are the 1904 and 1918 Baist's Map of the Vicinity of Washington, D.C.: https://www.loc.gov/resource/g3850.la002283/ and https://www.loc.gov/item/87691477/.

	A	B	C
356	319	General Comment	The DEIS and the Phase IA archeology report does not show the limits of disturbance or effects to historic properties for construction of the viaduct that will run along the BWP. The viaduct cannot possibly be constructed without removing a large number of trees along the BWP or without grading and excavating for construction of the piers on which the viaduct will run. Why was this information left out of the DEIS?