Maryland State Highway Administration's

Indirect and Cumulative Effects Analysis (ICE Analysis) Guidelines

For Environmental Impact Statements, and Environmental Assessments and Categorical Exclusions

Revised 05/07

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APPENDICES






INTRODUCTION

In compliance with the National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) regulations (40 CFR 1508.25(c)), the indirect and cumulative effects of a project should be examined along with the direct impacts. These guidelines apply to projects of all levels of environmental documentation, including: Environmental Impact Statements, Environmental Assessments, and Categorical Exclusions. These guidelines are meant to provide a consistent framework for indirect and cumulative effects (ICE) analyses which is not burdensome or complicated. They contain general procedures for preparing an ICE analysis. This means that careful consideration must still be given to the specifics of each individual project. There is no single "blanket" approach, meaning that the appropriate level of analysis must be determined on a project-by-project basis.

When an ICE Analysis is Prepared

The scoping activities of the ICE Analysis are initiated during the development of preliminary alternatives in Maryland State Highway Administration's (SHA) Project Planning Process. The ICE technical analysis will be conducted concurrently with other technical environmental analyses during the Alternatives Retained for Detailed Study stage and must be completed for each build alternative. It is important that the socio-economic analysis and conclusions be consistent with the ICE Analysis, in order to avoid a duplication of effort. This issue is discussed in more detail in the analysis section of the guidelines.

The following definitions have been taken directly from the CEQ regulations and CEQ guidelines entitled "Considering Cumulative Effects under the National Environmental Policy Act":

Indirect Effects: "*Effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water on other natural systems, including ecosystems." (40 CFR 1508.8(b))*

Cumulative Effects: "Impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." (40 CFR 1508.7)

Once the ICE analysis is completed, the findings must be included in the environmental document. In order for the public to readily comprehend the complete range of project impacts (direct, indirect and cumulative), the scoping, methodology descriptions, and documentation of the analysis results must be clearly written and easily understood.

Determining if an ICE Analysis is Necessary

The following combinations of the direct, indirect and/or cumulative impacts of an alternative on a resource may be encountered in transportation projects:

- direct, indirect and cumulative impacts
- direct and cumulative impacts only
- indirect and cumulative impacts only (usually associated w/ economic development projects)

However, if project alternatives do not result in direct or indirect impacts on a resource, then no further analysis of that resource is required. Because each alternative will differ somewhat in its impacts, "critical thinking" must be used on a project-by-project basis to determine the appropriate analysis required.

ICE Analyses and Categorical Exclusions

Some level of ICE analysis may be required for a Categorical Exclusion, depending on the scope of the project. An ICE analysis is NOT required for the following types of projects:

- Programmatic CE & Statewide CE's
- Replacement of Non-Historic Bridges

I. SCOPING / INITIAL ICE ANALYSIS ACTIVITIES

ICE Analysis scoping will be incorporated into the overall project planning process; it will be initiated prior to, and discussed at, the preliminary alternatives field/office meeting. As part of scoping, the agencies will participate in determining the range of alternatives and the impacts to be considered in the environmental documentation. Scoping involves identifying environmental resources in the project area and ICE issues to be considered, such as relevant resources, geographic boundaries, and time frames for the analysis. It provides the opportunity to a) obtain critical input from the agencies regarding which resources will be considered for more detailed analysis, as well as analysis methodologies; b) explain and make sure they understand any obstacles and missing information; and c) ask for their support in finding additional data.

The ICE Analysis scoping results should be documented in detail in the field/office meeting minutes and summarized in the environmental classification request letter to the Federal Highway Administration.

A. Resources

1. Identification

Identify those resources (natural environmental resources, standing historic structures, parklands, community facilities, etc.) which are directly impacted by each of the preliminary conceptual alternatives. You may also at this time be able to identify potential secondary development which could impact resources differently from those directly affected.

For the ICE Analysis, these resources which are directly impacted or potentially impacted by secondary development will be the resources initially considered.

> ***NOTE***
>
> The appropriate resources to be studied in the ICE Analysis must be continuously reassessed. Revisions to current alignments or the development of new alternatives may require that additional resources be considered in the ICE. Also, when the ICE boundary is later refined/finalized and as indirect and cumulative impacts are further identified additional resources may need to be considered.

2. Data Availability

Use only existing readily available data.

Perform a first level screening to assess data availability regarding resources identified within the ICE boundary. Create a matrix identifying each resource, data availability/ unavailability, reasons for data unavailability, data unit (i.e., countywide, statewide, watershed, etc.), data sources and analysis methodologies proposed for each resource.

Document unavailable data and reasons for the unavailability (e.g., data not collected in the past, data not in usable format, etc.) These explanations are to be included in the matrix.

B. Geographical Boundary

Establish a single preliminary ICE Analysis boundary based on a synthesis of the appropriate sub-boundaries described below. To determine this overall ICE Analysis geographic boundary, each sub-boundary should be plotted on separate overlays. In general, the outermost edges of the overlaid sub-boundaries will comprise the overall ICE Analysis boundary. Please note that within the overall ICE Analysis boundary, multiple/overlapping geographical sub-boundaries may exist. This means that, during analysis, particular resource data may be available for a sub-boundary within the larger overall ICE Analysis boundary. Please refer to ***Table 1*** on the following page for a list of potential ICE Analysis sub-boundaries.

The ICE Analysis boundary is generally much larger than the study area boundary, since it captures a large area of influence for a project in addition to the immediate area of impact. The study area boundary established early in project planning should only be large enough to allow for flexibility in the development of alternatives.

C. Time Frames

Establish a general time frame that covers the past, present and reasonably foreseeable future for the project's ICE.

1. Past Time Frame

Data availability for activities in the ICE Analysis boundary are key for establishing the past time frame.

Types of data to be collected for use in determining the past time frame are:

- Events in the historic context of the area (i.e., opening of the Chesapeake Bay Bridge, opening/closing of a military base, opening of a factory or employment center, etc.) which had a major effect on population growth, land use and, consequently, environmental resources. You may use the census data developed for purposes of establishing the ICE boundary to verify that an event resulted in substantial changes in population.

- Dates when roads were built in the ICE Analysis boundary. You must discuss and document - using census tract or other information - how building a road resulted in a major effect (increase or decrease) on population, employment and, consequently, environmental resources.

The preceding items related to land use changes can be discussed with the Regional and Intermodal Planning Division (RIPD) and others at the alternatives field/office meeting.)

Table 1: Potential ICE Sub-Boundaries

Sub-Boundary	Applicability	Rationale
Preliminary/Conceptual Alternatives	All projects	The area that encompasses all of the preliminary/conceptual alternatives, or the project study area.
Area of Traffic Influence	All projects	The area which is the geographic extent to which a project will affect traffic levels on nearby roadways (FHWA Position Paper: Secondary and Cumulative Impact Assessment in the Highway Project Development Process, April 1992). The Travel Forecaster will use the traffic developed for the Alternates Public Meeting to determine this area. This sub-boundary is particularly important if increased capacity is one of the reasons for the project, though it must be developed for all projects. The percentage increase or decrease in traffic can be a factor used to establish the area of traffic influence sub-boundary. In MPO areas, Traffic Analysis Zones (TAZ) may be used, as well as travel demand models which can provide the percentage increase/decrease in traffic for the proposed alternatives. The Travel Forecaster may also use professional judgment to determine the limits of traffic influence, especially for non-MPO areas. The travel forecaster will determine the most reasonable approach. **NOTE: Do not use alternative traffic routes to establish the area of traffic influence sub-boundary.**
Resources	All projects	The area within the boundaries of the resources that are directly impacted by the preliminary/conceptual alternatives or potentially impacted by secondary development. Examples could include parks, watershed/sub-watershed boundaries for streams and waters of the US, historic districts/sites, etc.
Census Tracts	All projects	The census tracts which are affected by the proposed alternatives. Review past (a minimum of 30 years) and current census data to determine approximate census tract locations of past and future population changes and employment growth trends. Census data is collected every 10 years. Subsequent to each census, various statistics are developed. For example, if data for 1970, 1980, 1990, and 2000 are reviewed, patterns of growth or decline will appear in certain areas. While the boundaries of census tracts often change, it is fairly easy to show those areas with substantial growth, which are the areas where impacts to various resources have occurred in the past and are likely to occur in the future. It is these growth areas that may influence the ICE boundary limits. Graphs, matrices or other documentation developed at this point regarding census statistics should be included in the Appendices of the environmental document.
County Planning Area(s)	Project-Specific	The area(s) which may be identified as county planning area boundaries, if available.
Sewer and Water Service	Project-Specific	The area(s) where existing and/or proposed sewer and water services are located.
Other	Project-Specific	The area covered by special designations such as Coastal Zone Management Areas, etc.

2. Future Time Frame

The project's design year should be used for the reasonably foreseeable future time frame, because design year traffic is based on the county's future land use assumptions.

II. ANALYSIS

A. Introduction

The analysis begins following SHA's request for concurrence on the Alternatives Retained for Detailed Study. Results are incorporated into the draft environmental document.

1. The study should be conducted using only existing readily available data. An ICE analysis does not involve developing predictive modeling or other predictive tools to fill in data gaps.

2. Varying levels of detail/analysis may be used for different types of projects.

3. Analysis results may be both qualitative and/or quantitative. It will be quantitative when the necessary information to do so is readily available.

4. If appropriate, refine the preliminary ICE Analysis boundary and the resource matrix before beginning the actual ICE analysis, based on:

    a. Data availability – lack of sufficient data may limit the analysis of effects on a resource.

    b. Development of conceptual alternatives – refinement of the original alternatives, development of additional alternatives, and/or elimination of alternatives may necessitate revisions in the ICE Analysis boundary and/or pertinent resources.

    c. During ICE analysis scoping, the resources identified for consideration in the ICE Analysis were those that were directly impacted by the preliminary conceptual alternatives or potentially impacted by secondary development. Now that the ICE Analysis boundary has been refined (if needed) and the alternatives to be retained are finalized, additional resources may need to be analyzed in the ICE Analysis.

5. Good consultant management is key to an effective ICE Analysis. Consultants should be provided with clear scopes of work regarding data gathering, mapping overlays and analysis efforts. Several meetings may be needed to ensure that the efforts are adequate. If different consultants are preparing the socio-economic and natural environmental portions of the ICE Analysis, you should hold an early consultant coordination meeting since the consultant doing the natural environmental work will need the land use/development information which is developed by the socio-economic consultant in order to perform their ICE Analysis.

B. Data Collection

Collect the readily available natural environmental and socio-economic data identified during scoping. This includes, but is not limited to, information related to resources, other projects, land use, development, etc. It is also important to discuss whether the proposed alternatives have full or partial controls of access.

C. Regulatory Programs

Identify the regulations and laws governing each resource (i.e., agricultural preservation zones, Section 404 of the Clean Water Act, etc.). In addition to state and federal regulations, contact local jurisdictions to determine their applicable regulations and ordinances.

D. Resource and Land Use Mapping

1. Using the existing readily available data accumulated from the resource agencies and others, prepare maps showing the natural and socio-economic resources (i.e., wetlands; floodplains; rare, threatened or endangered species; parks; known historic sites; communities; etc.) within the ICE boundary. The scale of this map must be the same as that used for the land use mapping, so that they can be easily overlaid.

2. Collect and display on mapping the land use and proposed development information for the project's ICE time frame. It is important to map the information on layers that can be easily used for overlaying. Land uses are generally identified as agricultural, residential, business, industrial, open space, parkland, etc. and include schools, roads, etc.

   Note (on map, if available) where sewer and water services exist or are proposed, since areas with sewer and water support greater development densities than areas with well and septic systems.

   a. Past Land Use

      1. Use mapping and other information regarding land use, development, and transportation projects if available from the local planner(s) and RIPD.

      2. If major transportation projects have been built in the past time frame, the analysis should briefly summarize those projects' impacts to socio-economic or natural resources of concern, since they would be considered cumulative impacts to a resource(s).

   b. Present Land Use

      1. In addition to current land use mapping obtained from the local planner(s) and RIPD, also include SHA projects that have received Location Approval, as well as state, federal, local and private developments proposed for the "near future" (the next 1 to 5 years). The appropriate development size(s) (i.e., subdivisions of a certain number of units or of a certain acreage, etc.) to be used and mapped must be determined on a project-by-project basis, and the rationale for the proposed size(s) must be provided.

2. Meet with the local planner(s), RIPD, the Engineering Access Permits Division and the Travel Forecasting Section to determine what data is available regarding the present land use.

   One existing source of information is RIPD's Major Development Matrix, which includes information on urban developments (500 units residential, 5000 SF commercial and 1,000,000 SF industrial) and rural developments (250 units residential, 2500 SF commercial and 500,000 SF industrial).

c. Future Land Use

1. Information can be obtained from RIPD, Metropolitan Planning Organizations, the Constrained Long Range Plan (CLRP), local master plans, etc. Master plans for local jurisdictions show locally anticipated future development or land use. Note that these future land use maps are different from secondary development/land use maps, which only show the future land use development that is dependent on the proposed transportation project.

2. The future land use scenario will be developed using two main sources:

   - *Travel Forecasts* - Review and map the future (design year) land use assumptions developed by the Travel Forecaster.

   - *Local/Regional Planners* - Meet with the local planner(s) to discuss and obtain information relating to development that is dependent on the proposed project and could result in indirect and cumulative effects. This information, including sources, must be carefully documented.

   Note

   Access control – or lack of it – is a key factor in assessing the potential for secondary impacts. Projects with uncontrolled access alternatives are more likely to result in secondary impacts. For those alternatives with access controls, the secondary impacts focus will likely be in the areas of intersections/interchanges. Therefore, it is important to provide mapping of the project alternatives (including locations of proposed intersections and interchanges) at the meeting with the local planners.

   Other sources, such as the Maryland Office of Planning's 2020 Land Use/Land Cover projections, can be used to verify future land use assumptions or fill in information gaps.

   i. For the <u>indirect</u> impacts:

      - Discuss in detail any local zoning implications and identify changes in land use and level of development that <u>may occur</u> as the result of each project build alternative retained for detailed study.

      - Clearly identify known development proposals/land use changes that can only occur if a proposed project alternative is built. In this scenario, developers or

the local government should indicate planned development that will not proceed without approval of a specific project or transportation alternative.

ii. For the cumulative impacts:

- Identify other development (public or private) that is not dependent on the project alternatives.

3. In special cases (for certain complex projects or if local jurisdictions, agencies, or special interest groups disagree that a particular land use will or will not occur), an "expert land use panel" can be formed to identify future land use scenarios. The use of these panels will be considered on a project-by-project basis. It's possible that more than one future land use scenario may need to be carried forward into the analysis.

E. Analysis Methodologies

Generally, the most appropriate methods of analysis for project planning studies are trends analyses, overlays, matrices and interviews. These methods often overlap each other (e.g., GIS overlay results from different years can be used to describe trends or be summarized in a matrix).

1. Trends Analysis

This method generally involves a qualitative discussion of impacts to a resource over time. Past and current effects can allow an informed projection of likely future effects. Review past (minimum of 30 years) and current census data to assess population and employment trends within approximate ICE boundary. Patterns of growth (development) or decline will appear in certain areas during certain time frames.

If data is available which indicates that a resource was at a certain number/level in the past and has been reduced over time due to development, then this serves as a qualitative trends analysis.

a. Reports and studies gathered from various sources may also have important information on past impacts to resources within the ICE boundary. Even though this information may discuss a resource on a county- or statewide basis, not within the ICE boundary for the project, it can still be useful when describing past impact trends.

b. Past land uses compared to present and future land uses – as related to a particular resource – are the basis for this methodology. A discussion of build-out of available land, comparing build with no-build, may also be appropriate.

2. Overlays

This method generally involves overlaying present and future land use maps over the existing environmental resources and quantitatively or qualitatively describing the impacts to those resources.

Note: Past land uses usually cannot be overlaid over past resources, since past resources are not typically identifiable.

a. For example, if a future land use map is overlaid on an NWI map, the approximate acreage of wetlands impacted within the ICE by residential, business, industrial, etc. land uses can then be estimated. This would be a very conservative estimate, since it is unlikely that every acre of wetlands in an area designated for development use would be impacted by that development.

b. Another overlay method for evaluating impact involves "eliminating the areas" (acreage) taken up by forests, wetlands, stream, open space, agricultural use, existing residential and business developments, etc. within the ICE boundary. The amount of land remaining for potential development can then be estimated and overlaid on the resources mapping to determine potential impacts.

3. Matrices

This method involves using a table to compare impacts to a resource over time, and is most useful as a tool to clearly display the results of a trends analysis or overlay process.

4. Interviews

Experts answer questions regarding potential effects.

F. Perform ICE Analysis

Based on the above methods, analyze and identify impacts to resources from other actions (past, present and future) including indirect impacts – if any – due to each alternative. These impacts will then be added to the direct impacts associated with each alternative to arrive at the total cumulative impact on each resource for each build alternative being studied.

III. DOCUMENTATION

Based on the project type, size, scope, etc., it may be deemed appropriate to prepare a separate ICE Analysis Technical Memorandum prior to submission of the environmental document (i.e., EA or EIS). However, this is not required and its feasibility should be considered on a case-by-case basis.

> ***Note***
>
> It is important not to "pad" the analysis discussion with extraneous data that was not used in explaining the indirect and/or cumulative impacts to a resource. The public should easily understand the analysis results.

The results of the SCEA analyses will be summarized for inclusion in a separate section of the Environmental Consequences chapter of the environmental document. It is important that a SCEA discussion be provided for each build alternative.

If indirect effects are relevant to the project, then indirect and cumulative effects discussions should be separated in the ICE Analysis discussion.

The SCEA write-up will be broken into the following sub-topics:

A. Scoping – Discuss the rationale for selecting the resources, geographic boundary and time frame (use mapping as appropriate).

B. Analysis – Describe the data sources, how the land use scenario(s) were developed for each alternative, the analysis methodologies, and the effects on each resource per alternative. If an "expert land use panel" results in future land use scenarios substantially different from those shown on local land use plans, document those effects. Include resource and land use mapping and other graphics/matrices as appropriate.

C. Conclusions – Describe the indirect and cumulative effects conclusions reached and cite applicable regulatory programs and their relationship to the conclusions.

D. Mitigation – Discuss any proposed mitigation to be provided by SHA, as well as possible mitigation strategies which could be implemented by others.

E. Appendices

1 Resource matrix
2 Discussion regarding data availability
3 Summaries of meetings with agencies, local planners, MPOs, etc.
4 Collected data not directly pertinent to the ICE analysis.

If a project does not result in indirect or direct impacts on a resource, then no further analysis of that resource is required. The justification for this assessment must be fully documented.

If there is insufficient readily available data to analyze indirect or cumulative effects on a particular resource, then document the justification for not continuing theICE. Also, if the indirect or cumulative effects on a resource are not an important issue (meaning not relevant to decisions about the proposed action and alternatives), then document the justification for not continuing the ICE for that resource. The ICE analysis "should 'count what counts', not produce superficial analyses of a long laundry list of issues that have little relevance to the effects of the proposed action or the eventual decisions" (CEQ's Considering Cumulative Effects under the National Environmental Policy Act, p.12).

IV. MITIGATION

SHA will implement mitigation for direct impacts and identify possible mitigation strategies for indirect and cumulative impacts to be considered by the responsible parties (agencies and local governments).

SHA may also do such things as work with local jurisdictions to develop access controls where appropriate, suggest that local jurisdictions develop resource preservation plans, etc.

The mitigation discussion will also include existing regulations and protective measures already in place.

V. ICE ANALYSIS FOR CATEGORICAL EXCLUSIONS

INTRODUCTION

As stated previously, some level of ICE analysis may be required for a Categorical Exclusion (CE). Projects not requiring ICE documentation include:

- Programatic CE
- Replacement of Non-Historic Bridges
- Enhancement Projects

Addressing CE Projects Not Requiring an ICE Analysis

For CE letters prepared for Enhancement and Streetscape projects and non-historic bridges, include a statement in the letter indicating that an ICE analysis is not required due to the scope of the project.

Addressing CE Projects Requiring an ICE Analysis

For those projects that meet the criteria for classification as a CE, the following questions should be considered:

- What is the purpose and need for the project? Is the primary need for the project economic development, or is the project related in any way to planned development in the vicinity of the project?
- Does the project propose new/improved access which could allow potential development to occur?
- If the increasing roadway capacity is a primary purpose of the project, is the current capacity limiting development?
- Would the project enhance the development potential of adjacent properties?

If the answer to any of these questions is “Yes”, then an ICE analysis discussion must be included in the letter requesting Location Approval (L/A) from FHWA. If the answer to all questions is “No”, then an ICE Analysis is not required; however, the rationale for why one is not required should be discussed in the CE Classification Request letter (or in the L/A request if separate classification request is not prepared). A sample discussion of why an ICE Analysis is not required is included in Appendix B.

Understanding Catergorical Exclusions

Programmatic CE (PCE)

Regulation 23 CFR 771.117(c) contains a list of highway and transit related actions which experience has shown never or almost never cause significant environmental impacts and can "programmatically" be classified as a CE (PCE). Please see ***Attachment A*** for a list of these project types. Remember, an ICE Analysis is NOT required for these projects. Other actions that have prior approval by the FHWA Administrator consistent with Regulation 23 CFR 771.117(d) also do not require an ICE Analysis.

FHWA Approved CE

The conditions under Regulation 23 CFR 771.117(c) and (d) may still qualify as a CE consistent with CEQ 40 CFR 1508.4, but must be approved by FHWA. The submittal to FHWA must demonstrate that there is little or no potential for "significant" impacts. In many cases an ICE Analysis may be required depending on the scope of the project.

I. ICE ANALYSIS FOR A CE

An ICE analysis prepared for a project classified as a CE does not require the same level of detail as those prepared for EISs or EAs, but still must demonstrate whether the project will result in indirect and cumulative effects. The following steps provide guidance in conducting the analysis:

A. Scoping - The boundary, time frame, and resources to be evaluated in the ICE analysis should be established consistent with the SHA guidelines in the same manner as they would if the analysis were prepared for either an EA or an EIS. These scoping activities will be initiated prior to, and discussed at, the preliminary alternatives field/office meeting

NOTE: The boundary should be appropriate to the scope of the project. It should generally be confined to the project study area, and any properties directly impacted, parcels adjacent to the study area or properties otherwise affected by the project.

B. Analysis - Develop mapping that illustrates existing and proposed land use/development in the project area.

Based on the information gathered during the ICE analysis, the following questions should be addressed and answered for the ICE analysis:

- Is the development potential of the area already built-out?
- Is the other development in the area that will occur regardless of the project?
- Is there proposed development that cannot occur unless the proposed transportation improvements are built?

If the answer to the last question above is “Yes”, it is essential to assess land use changes that will occur as a result of the project and how environmental resources on or adjacent to the affected parcel will be impacted. Finally, discuss whether the direct impacts to specific resources are of a magnitude that is significant.

Appendix A

Programmatic Categorical Exclusions

Regulation 23 CFR 771.117(c) contains a list of highway and transit related actions which experience has shown never or almost never cause significant environmental impacts and can "programmatically" be classified as a CE (PCE). A copy of this list is as follows:

1. "Activities which do not involve or lead directly to construction, such as planning and technical studies; grants for training and research programs; research activities; approval of a unified planning work program and any findings required in the planning process; approval of State Transportation Improvement Program (STIP); engineering to define the elements of a proposed action or alternatives so that social, economic and environmental effects can be assessed; and Federal-Aid system revisions which establish classes of highways on the Federal-Aid highway system.

2. Approval of utility installations along or across a transportation facility.

3. Construction of bicycle and pedestrian lanes, paths, or facilities [if no additional right-of-way is required].

4. Activities included in the State's Highway Safety Plan funded by Highway Related Safety Grants (402 Safety Program).

5. Transfer of Federal Lands when the subsequent action is not an FHWA action.

6. Installation of noise barriers or alterations to existing publicly owned buildings to provide for noise reduction.

7. Landscaping.

8. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.

9. Emergency repairs under the Emergency Relief Program.

10. Acquisition of scenic easements.

11. Determination of payback for property previously acquired with Federal-Aid participation.

12. Improvements to existing rest areas and truck weigh stations [if no additional right-of-way is required].

13. Ridesharing activities.

14. Bus and Rail car rehabilitation.

Programmatic Categorical Exclusions (Continued)

15. Alterations to facilities or vehicles in order to make them accessible to elderly and handicapped persons.

16. Program administration, technical assistance activities, and operating assistance to transit authorities, to continue existing service or increase service to meet routine changes in demand.

17. The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities which themselves are within a CE.

18. Track and rail bed maintenance and improvements when carried out within the existing right-of-way.

19. Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.

20. Promulgation of rules, regulations, and directives."

Additional actions which have been approved by the FHWA DELMAR Division Administrator under 23 CFR 771.117(d) as meeting the criteria for Categorical Exclusions include:

1. Modification, upgrading, repair, or retrofitting of existing stormwater management facilities, or the retrofit construction of new facilities (i.e. infiltration trenches, ponds) when not done in conjunction with another transportation construction project; and other water quality activities such as stream stabilization and restoration, removal of permanent or fixed obstructions, and fish passage remediation including fish weirs.

2. Modernization of an existing highway through restoration, rehabilitation, or reconstruction; widening less than a travel lane width; adding or widening shoulders; adding curbs, gutters, and sidewalks; and adding auxiliary lanes (e.g. parking, weaving, turning, climbing) less than one mile in length.

3. Highway safety, traffic operation and incident management improvement projects, such as the installation of guardrails, lighting, ramp metering control devices, and traffic signalization.

4. Minor safety related drainage improvements including, but not limited to, culvert and/or headwall installation/removal in place; pipe installation, replacement and extensions (in kind and in-place); and adding pipe end sections.

5. Correcting substandard roadway geometrics and intersections (i.e. spot improvements).

6. Repair or construction of erosion control and slope protection measures such as slope stabilization, slide repairs, rip rap, and retaining walls.

7. Minor bridge and structure rehabilitation, bridge re-decking, repairs to bridge rails, or substructure alterations.

8. Ridesharing activities, including the expansion of existing carpool lots, park and ride lots, and other similar facilities.

9. Disposal of excess right-of-way under 23 CFR 713, Subpart C, where the proposed use does not have significant adverse impacts.

Programmatic Categorical Exclusions (Continued)

10. Approval for the lease/use of federally acquired right-of-way for non-highway purposes.

Appendix B

Sample CE ICE Discussions

Sample Discussion of why a SCEA is NOT required (MD 32 Interchanges at NSA)

The new interchanges will not provide new access to potential development areas and will not provide increased roadway capacity. Therefore, the proposed improvements are not expected to encourage residential or commercial development within the study area or surrounding region.

Tipton Airfield, a former U.S. Army helicopter base, was designated for privatization by the 1988 Base Realignment and Closure Act (BRAC) and was officially closed in 1995. It reopened on November 1, 1999 as the Tipton Airport and is now operated by Anne Arundel County and the Tipton Airport Authority. The airport is planned as a private recreation and business general aviation facility. The facility is not planned to accommodate airline, commuter, or cargo services. While some new construction and restoration of aviation facilities are planned, no major development is being proposed which would influence regional land use. While the proposed improvements would provide improved access to this facility, no secondary and cumulative effects are expected to be generated.

The sole purpose of the project is to provide improved access and access safety for NSA and Fort Meade. As land use in the study area is and has been controlled by the U.S. Army and other government agencies, and there is no reasonably foreseeable plans for development, the potential for secondary effects associated with the project are considered to be negligible. Similarly, with respect to the minimal direct impacts which are projected to result from the proposed improvements, and in consideration of the mitigation measures proposed to offset these impacts, the contribution of this project to cumulative impacts on study area resources is expected to be minimal.

When an ICE Analysis IS required for a CE: Sample discussion (MD 174 over I-97 Interchange)

In assessing the potential for secondary and cumulative effects associated with this project, the SHA looked at the general development trends in the study area, inventoried natural and cultural resources within the study area, and evaluated any other projects within the general vicinity which may contribute to any cumulative effects. Concurrent with the roadway improvements, the SHA is in the process of selling Parcel 563 (Attachment 3),which was previously declared excess property by SHA. This parcel, which is approximately 20 acres in size, as well as other adjacent pacels were included within the Secondary and Cumulatieve Effects Analysis (SCEA) boundary shown in Attachment 9. The SCEA boundary reflects al parecels and subdivisions, which are either directly impacted by or immediately adjacent to the interchange project and the excess parcel.

An environmental overview indicates that forests are the only natural resource within the SCEA boundary. There are no FEMA regulated floodplains, no historic or archeological sites and no mapped wetlands or waters of the United States within the SCEA boundary. Existing land use within the SCEA boundary ranges from residential and commercial uses to mixed forests (See Attachment 10). All of the properties within the SCEA are zoned commercial, industrial or residential (See Attachment 11). The FHWA Position Paper on Secondary and Cumulative Impact Assessment in the Highway Development Process (April 1992) states that if project impacts on environmental resources indicated little or no anticipated future change, then the

highway improvement will ikely have no indirect impacts. The only resource within the boundary (forests) would be protected under Bill No. 71-94 of the County Council of Anne Arundel County. The Bill implements the State Forest Conservation Act by "establishing forest conservation thresholds and priorities for the retention of existing forests" and "establishing standards for mitigation of forest clearing through reforestation an afforestation". The proposed highway project will have no significant impact on any environmental features and forests within the SCEA boundary and are protected under state and county laws.

Much of the area within the SCEA boundary south of the interchange experienced "build-out" conditions. This project will not provide access to any new development areas south of the interchange and will consequently not add to or create any cumulative impacts. The areas north of the interchange are largely wooded, but have approved subdivision and development plans. The proposed development of these parcels will occur regardless of the improvements proposed to MD 174. The purpose of this project is to increase the safety of ramp geometrics, accommodate future traffic volumes and to replace an aging bridge. The proposed widening and interchange reconfiguration project will not induce significant impacts to planned growth or land use for the area; will not have a significant impact on any natural, cultural, recreational, historic, or other resource; and is not anticipated to have any secondary or cumulative impacts.