

INDIRECT AND CUMULATIVE IMPACT ASSESSMENT APPROACH

Step	1	2	3	4	5	6	7	8
Activity	Determine Study Area Boundaries	Identify Study Area Direction and Goals	Inventory Study Area Notable Features	Identify Impact-Causing Activities of Proposed Action Alternatives	Identify Potentially Significant ICIs for Analysis	Analyze ICIs	Evaluate Analysis Results	Assess Consequences (and Develop Mitigation Strategies)
Objective	Incorporate full extent of potentially affected resources; facilitate data gathering/analysis	Define context for assessment; identify past, present, and future actions; determine No-Action trends/future conditions	Identify specific issues in natural and community environment by which to assess project	Link project alternatives with potential ICIs	Identify indirect effects that merit detailed analysis	Analyze reasonably foreseeable magnitude, location and extent of ICIs	Verify reasonableness and consider uncertainty of analysis assumptions and findings	Evaluate acceptability of ICIs; Develop recommendations to avoid, or lessen unacceptable effects and enhance desirable effects
Data Sources	Census journey-to-work data; Regional model forecast travel times; resource mapping	CCRPC and town comp plans, resource and transportation studies, CCMPO TIP, MTP, forecasts; Census data; stakeholder/ expert interviews	Topo and resource mapping; orthophotography; field verification of natural and community resources; stakeholder/expert interviews	Project description and known information on other projects/future conditions from steps 2 and 3	Information gathered in steps 1 through 4. <i>Issues include:</i> land development impacts in outlying areas; shift of employment to outlying areas; farmland consumption; community services, tax base and quality-of-life; traffic and air quality impacts	No Action forecast of travel times and regional/local demographics; regional model travel time forecast for each Action alternative; other information on development trends and potential and notable features gathered in steps 2 and 3	Expert interviews; information on change/variance history in local land use plans and regulations	Information on goals, plans, and notable features gathered in steps 2 and 3; literature review; comparative case analysis on growth management; access management and other potential strategies; expert interviews
Methods	Overlay extent of area likely to benefit from travel time savings with resource areas and other past, present, and future actions—consider community boundaries and data availability	Review and independently assess existing demographic forecasts; compile regional and local visions, plans, policies and regulations	Assemble lists and maps of notable features including but not limited to Act 250 criterion and other notable features identified through review of plans/studies, interviews, and outreach	Identify features of alternatives with potential to produce encroachment or access alteration effects. Comparative case approach to identify features with potential links to ICI	Matrices and checklists documenting cause-effect linkage between alternatives and ICIs; overlay maps showing areas susceptible to land use change and notable features; ICI scoping decision tree	Regional accessibility and development potential analysis (gravity model); interchange-specific development potential analysis; case studies and expert interviews; analysis of land use/density change and link to resource vulnerability and carrying capacity given cumulative load	Review analysis assumptions with project team/experts and test sensitivity of findings based on reasonable variations in input assumptions; Assess potential for future change in land use regulations/plans	Compare magnitude of ICIs with goals, plans and notable features; document points of conflict and areas of benefit; reanalyze as necessary to account for mitigation strategies
Interagency/ Public Involvement	Provide input; review/validate boundaries	Provide studies, data sources and information on trends; validate work product	Participate in identifying features that are notable	Review project description; review work product	Participate in exploring cause-effect relationships; Input on ICIs requiring detailed analysis; review work product	Provide input on assumptions, sources and methods; review work product	Participate in identifying and bounding uncertainty; checking reasonableness of findings	Participate in judging acceptability of ICIs; Provide input into mitigation strategies
Work Product	Map outlining study area and tech memo on study area development	Synthesis of relevant plans, trends, and policies	List of notable features and map of feature locations	List of impact causing actions	Tech memo describing ICI screening and effects for detailed analysis	Tech memo with maps and illustrations detailing analysis assumptions, methods, and findings	Tech memo on sensitivity analysis	Integration of all ICI findings into EIS