

2440. Project Development Considerations

- 2440.1. Environmental
- 2440.2. Soils/Foundation Investigation
- 2440.3. Right-of-Way
- 2440.4. Civil Rights Programs
- 2440.5. Airport Leasing

2440.1. Environmental

2440.1.1 Introduction

All projects require the following activities:

1. Analysis of environmental impacts
2. Coordination with local governments, resource agencies, and federally certified tribes
3. Obtainment of required environmental permits and clearances
4. Completion of a public involvement process

The nature of the proposed project determines the level of analysis and coordination and the class of environmental document needed to identify and summarize the project's social, economic, and environmental impacts. Conduct environmental activities in accordance with FAA Order 5050.4A.

The project environmental document is prepared during the design stage, using as its foundation the purpose and need (problem statement) and the description and comparison of alternatives.

Final recommendations on how to solve the project's problem statement are the responsibility of the project manager. FAA approval of the completed environmental document, including any public hearing transcripts and certification, constitutes acceptance of the project location and concepts described in the document.

For projects at Anchorage International Airport, which is in an air quality non-attainment area, address conformity with the State Implementation Plan (SIP). The SIP states: "Projects in non-attainment areas cannot increase the number or severity of violations in the area substantially affected by the project." You must address project-level conformity determinations (hot spot analysis) for projects not of the type listed in 40 CFR 51.460.

During final design and PS&E, obtain remaining

permits and clearances, and design the project to include permit stipulations and mitigation commitments made in the environmental document.

2440.1.2 Initial Environmental and Public Involvement

Soon after receiving the initial approved PDA, and as part of PMP development, the project manager meets with the regional environmental coordinator for a project identification meeting to identify environmental issues, processes, permit requirements, and timelines, and to establish starting dates for environmental and public involvement activities for the work plan. On all projects, complete and record in the project's environmental document an analysis of the social, economic, and environmental effects.

Close and continuous coordination with the environmental section is necessary throughout project development to ensure that the environmental impacts of all reasonable alternatives are being considered.

2440.1.3 Environmental Classification

One of three levels of documentation is required to comply with the National Environmental Policy Act (NEPA) process. The regional environmental coordinator recommends the appropriate class.

Classes of actions are defined in order 5050.4A.

Class I: Environmental Impact Statement (EIS)

If a project is expected to have a significant effect on the environment, the environmental process requires notice of intent, preparation, and FAA approval of a draft EIS, circulation of the draft EIS for comments and public hearing, recommendation on how/whether to proceed, a final EIS, the Record of Decision (ROD), and a published notice of availability. The environmental issues to be addressed vary by project, and some may not become apparent until later in the design process.

The duration of environmental activities, from the PDA to the FAA issuing of the ROD, can take as long as three to four years.

Class II: Categorical Exclusion (CE)

A CE project has no significant individual or cumulative effect on the environment. The list of airport actions that qualify as a CE are identified in FAA Order 5050.4A, Paragraph 23.

The process for a CE, where scoping is not required, can usually be completed within 10 days. A CE that requires agency and public coordination can take 45 days or more, depending on the issues being considered.

Class III: Environmental Assessment (EA)

If the significance of project impacts is not clearly identifiable, an EA is prepared. The EA results either in a Finding of No Significant Impact (FONSI) or a conclusion that an EIS is required, if significant impacts are found.

The process requires public notice, preparation and FAA approval of an EA, notice of availability, public hearing, or hearing opportunity, recommendation on how/ whether to proceed, and (usually) approval of a FONSI. The duration of environmental activity from inception through approval of a FONSI recommendation can take up to a year.

For any document type, the type of environmental investigation can extend the time required. The environmental phase can, in a sense, become open-ended. Field investigations should occur as soon as possible because of the limited field session in Alaska.

The CE, draft EA, and draft EIS documents are *not* released to the public until after approval by the Department and the FAA.

2440.1.4 Environmental Process

The environmental process and approvals are described in the *Alaska Environmental Procedures (Aviation) Manual*.

2440.1.5 Agency Coordination and Public Hearing

Early coordination is required with local, state, and federal agencies, as it aids in identifying probable effects and determining the type and scope of the environmental document. The environmental coordinator initiates this process at the direction of the engineering manager.

In accordance with the Airport and Airways Improvement Act, the sponsoring agency for a proposed airport development project must offer the opportunity for formal public hearings if the project involves the following:

1. New airport location
2. New runway

3. Major extension of existing runway

Public meetings can be held at any time, but a formal public hearing is held after approval of the CE, draft EA, or draft EIS.

Whether or not a public hearing should be held in all other situations is discretionary. The FAA has provided guidelines for determining whether hearings should be held based on:

1. The magnitude of the proposal in terms of environmental impacts
2. The degree of interest in the proposal as evidenced by requests for a hearing from public officials and private citizens
3. The complexity of issues and likelihood that relevant information will be presented at the hearing
4. The extent to which effective public involvement has already been achieved through means other than public hearings

The FAA requires that the sponsor consult with air carriers and fixed base operators regarding the proposed project and submit documentation of the consultation.

Public involvement in accordance with current Department policy and procedures generally consists of:

1. An early workshop during project development to help identify issues, goals, values, and possible impacts
2. Development of a mailing list(s) and ongoing discussion with agencies, the public, and individuals during development
3. A public hearing, or opportunity for hearing, after approval of a draft EA or draft EIS to present studies and interaction in a public forum
4. Availability of the completed EA or final EIS

2440.1.6 Permits and Clearances

The environmental section obtains required permits and clearances based on information and drawings provided by the project manager or designated support staff.

Alaska Division FAA requires all permits be obtained

prior to FAA approval of the environmental document. It is imperative that any subsequent changes the engineering manager contemplates are discussed, and the environmental section must concur so that permit modifications include accurate descriptions of the intended work. Non-controversial permits can usually be obtained within 30 days; major, site-specific permits with public review requirements can take six months or more.

Permits and clearances typically required are:

Alaska Coastal Management Program (ACMP)

Determination of consistency with the state's ACMP plan is required on all projects in the coastal zone before contract award. Refer to Federal Coastal Zone Management Act of 1971 and Alaska Coastal Management Act of 1977 (AS 46.40 and 44.19).

Fish and Game

Approval from the Alaska Department of Fish and Game is required for projects that affect state refuges, critical habitat areas, and cataloged anadromous fish streams and resident fish streams. All Fish and Game approval(s)/permit(s) must be obtained before the ATA. Projects must provide for habitat protection and accommodation of fish passage (AS 16.05.870, 16.05.840).

Essential Fish Habitat (EFH)

All projects that may adversely affect EFH require consultation with the National Marine Fisheries Service. EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.

If the regional environmental coordinator determines that the project may adversely affect EFH, the project must comply with procedures described in the EFH Finding for Airport Projects in Alaska (James W. Balsiger, Administrator, Alaska Region, NMFS, to Byron K. Huffman, Airports Division Manager, FAA, dated July 31, 2002).

Archaeological and Historical ("Cultural")

All projects for construction require clearance from the State Historic Preservation Office (SHPO) during the design stage (AS 41.35.070 and 36 CFR 800).

Federal and state projects may entail a Section 106 (National Historic Preservation Act) review. This process can involve:

- Surveying and researching to identify sites on or eligible for the National Register of Historic Places
- Assessing the effect of the project on such sites
- Implementing approved mitigation measures for sites adversely impacted. The clearance process may take a considerable amount of time. You must obtain clearance for the project corridor and for materials sources and disposal sites. If materials sources and disposal sites are contractor-furnished, the contractor is responsible for obtaining clearance.

U.S. Army Corps of Engineers (USACE)

Projects involving fill in wetland areas, rivers, lakes, streams, navigable waters of the U.S., or coastal waters require an individual or nationwide USACE permit, per Section 404 of the Federal Clean Water Act and/or Section 10 of the Rivers & Harbors Act of 1889.

Obtain a consistency determination with the Alaska Coastal Management Program for Corps permits for projects in a coastal zone. Also, obtain a water quality assurance certification (Section 401) from the Alaska Department of Environmental Conservation (ADEC) through the Corps permit process.

Design features such as typical section, alignment, slope limits, etc., must be detailed enough to obtain a Corps of Engineers permit and to avoid costly "loops" and project delays. These features can be fine-tuned during the design phase in recognition that a minor modification to the permit is acceptable.

Wetland use as a vegetative buffer strip requires approval from the Corps of Engineers. Include the use of wetlands as a buffer strip in the narrative of the project Corps of Engineers' 404 permit.

U.S. Environmental Protection Agency (EPA)

The U.S. Environmental Protection Agency (EPA) National Pollution Discharge Elimination System (NPDES) General Permit currently addresses projects of that disturb more than 1 acre of ground by requiring the contractor to use the Department's Erosion and Sediment Control Plan (ESCP) as a basis to prepare a Storm Water Pollution Prevention Plan (SWPPP). ESCP guidance is provided in Section 2520.1 of this manual.

Alaska Department of Environmental Conservation (ADEC)

18 AAC 72.600 requires written approval from the Alaska Department of Environmental Conservation (DEC) of all plans that construct, alter, install, modify, or operate any part of a nondomestic wastewater treatment works or disposal system. The project Erosion and Sediment Control Plan (ESCP) requires DEC approval prior to advertising.

Stormwater runoff from a highway is "nondomestic wastewater" as defined by the Alaska Department of Environmental Conservation (DEC).

Submit project plans to DEC for approval of both the stormwater collection and disposal system (e.g., ditches) and the Erosion and Sediment Control Plan (ESCP) prior to advertising.

Local Government

AS 35.30 does not apply to airport capital improvement projects. However, the FAA requires that when a new airport is constructed in a non-metropolitan area, the sponsor provides a certification that the community supports the location of the proposed airport.

2440.2. Soils/Foundation Investigation

Perform soils investigations and reports in accordance with the Department's *Geotechnical Procedures Manual* and *AASHTO Manual on Subsurface Investigations*, by regional Materials staff.

Their purpose is to determine the nature of underlying soils along the project alignment, estimate the availability and characteristics of construction materials, recommend earthwork structural design parameters, and identify and make recommendations for resolving special geotechnical problems.

This work may be contracted to a consultant in the event regional or statewide Materials are unable to undertake the necessary geotechnical investigation.

2440.2.1 Initial Soils/Foundation Investigation

Conduct a geotechnical reconnaissance. Using the description of alternatives, the project scope, and the rough estimate of earthwork quantities as provided by the engineering manager, the engineering geologist evaluates the data, makes a field review, and then summarizes, in a memo format report, a comparison of soils conditions, materials availability, and possible

problems for each alternative. Test holes or pits may be necessary to verify materials source suitability. Major projects may require soil borings and a subsequent formal report. (*Note: The Engineers Geology Geotechnical Exploration Procedures Manual* is a good reference when conducting geotechnical reconnaissance.)

Complete the review and refinement of the purpose and need, description of alternatives, and cost estimates for incorporation into the project's environmental document.

The preliminary study effort should be commensurate with the complexity of the project.

2440.2.2 Soils/Foundations Investigation

Once the preferred alternative has been selected, geotechnical investigations are completed to support design of the selected alternative, that includes "centerline" and materials site borings and test pits, samples analyses, and preparation of a final report with recommendations for design. To support the field investigation, the engineering manager may provide possible line and grade data (existing and proposed), location of cuts and fills, estimates of earthwork quantities, and anticipated provisions for drainage.

The geologist prepares an exploration plan for the approval of the regional materials engineer and the engineering manager. If possible, the engineering manager or principal designer accompanies the geologist on a field review of the alignment and may return for first-hand review of problem areas during field investigations.

The final geotechnical report is not normally completed until after final alignment, grade, and geometry have been selected. Write preliminary geotechnical reports, or memoranda with interim design recommendations, as soon as the results of the fieldwork are known.

2440.3. Right-of-Way

The Right-of-Way section obtains the land interests necessary for construction, operations, and maintenance of capital projects in accordance with the Department's *Right-of-Way Manual*. This process involves:

1. Identifying land needs based on the ALP
2. Researching titles to properties to be acquired
3. Preparing right-of-way plans, with

measurements of areas needed

4. Appraising the fair market value of lands needed, including affected improvements
5. Negotiating property acquisitions
6. Relocating any displaced families and businesses
7. Certifying the Department's ownership or land interest
8. Controlling encroachments and disposing of lands no longer necessary for public use
9. Preparing programming requests for the engineering manager's approval

If negotiations fail, the Department may seek to acquire a property by eminent domain (condemnation) through the courts. Approval to proceed with acquisition through condemnation is reserved for the preconstruction engineer, and the Department of Law handles subsequent proceedings.

2440.3.1 Initial Right-of-Way

Using a description of the alternative alignments provided by the engineering manager, ROW staff members prepare estimates of the probable number of parcels for each alternative, their acquisition and relocation costs, and "incidentals," that is, the cost of performing ROW activities.

Staff also assess each alternative in terms of the socioeconomic effects on residences and businesses, and how many displacements it would cause. They report the results in a Conceptual Stage Relocation Study, often in memo format, which is included in the project's environmental document.

If there is a public hearing on the environmental document, ROW presents information from the Conceptual Stage Relocation Study and discusses the acquisition and relocation processes as required by the *Right-of-Way Manual*.

As with other support groups, early and ongoing coordination with ROW helps determine the level of information needed from the engineering manager, facilitates early starts and steady progress, allows timely design response to feedback, and ensures coordination of the effects of plan changes.

2440.3.2 Design Right-of-Way

Design changes affecting the amount or location of

required land need to be coordinated closely with ROW and all other support groups.

If there is a design public hearing, ROW presents the updated relocation study and other information as required by the *Right-of-Way Manual*.

Among other factors, the presence of hazardous materials or hazardous waste can significantly affect appraisals. It is important to identify and investigate suspect parcels early in the project development process, usually as part of environmental activities, so that any problems can be quantified and managed in time to minimize delay in the appraisal process.

Property owners may request construction items be added to the plans. The negotiator submits such requests for project manager approval, on a Memorandum of Agreement (MOA), aka Memorandum of Understanding (MOU), form. If negotiations are concluded successfully, ROW processes the legal and payment documents, arranges for clearing the acquired right-of-way of any improvements, and manages any relocation of families or businesses.

If negotiations fail or title complications exist, and if administrative settlement at a higher-than-market price is imprudent or unsuccessful, eminent domain proceedings are initiated through the Department of Law. These proceedings significantly affect project schedules and budgets. The proposed taking must be for the greatest public good and the least private injury, and the preconstruction engineer must approve the decision to proceed with condemnation.

Forward appraisals and administrative settlements to the FAA for a reasonableness-of-cost determination.

If specifically listed on the Invitation for Bids, make right-of-way information available to bidders.

2440.4. Civil Rights Programs

There are numerous state and federal laws and regulations pertaining to civil rights. The Civil Rights Office is a good place to start for specific information. Provisions to implement nondiscrimination and entitlement programs are included in various contract "boilerplate" forms and in the specifications. The provisions for state-funded and federal-aid contracts are similar, but not identical.

2440.4.1 Disadvantaged Business Enterprise (DBE) Program

The purpose of the DBE program is to provide an equal opportunity for participation of minority-owned and female-owned businesses in construction contracts and subcontracts.

On all federal-aid contracts, bidders must meet minority business recruitment procedures in order to be considered for award.

When design is nearly complete and ready for PS&E review, prepare a goals worksheet using a brief description of project scope and a listing of subcontractable work items from the engineer's estimate. From this worksheet, the Civil Rights Office in Anchorage establishes the goal, which is added to the bid schedule prior to advertising.

2440.4.2 Title VI

Pursuant to the Civil Rights Act of 1964, the Department has prepared a Title VI Work Plan to ensure compliance with federal civil rights laws and regulations in its programs. The work plan stipulates clauses to be included in construction contracts, professional service agreements, and property actions. It also places coordination and reporting requirements on project managers during the project development and public involvement processes. Copies of the work plan are available through the Civil Rights Office.

2440.5. Airport Leasing

Airport leasing is responsible for management of state-owned airport lands in Alaska and therefore deals with airport users on a continuing basis.

Coordinate closely with airport leasing from project inception through final PS&E to ensure that the design is appropriate from a property management standpoint, and to help ensure airport user's needs are addressed as early in the design process as possible. Consult airport leasing when developing the PMP and PIP. Include airport leasing in the pre-design meeting and all reviews.